
Collaborative Tools in Enhancing ESL Writing during Covid 19: A Systematic Review

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Abstract

The existence of Covid-19 has significantly affected the method of teaching and learning globally. Online lessons have become the pertinent pedagogy in education in Malaysia. However, second language learners become demotivated in English writing during online lessons as students have limited vocabulary and they are poor in sentence structure in English writing. Thus, this study is significant as online platform is the most effective way to teach writing now. Past studies revealed that Mind map, Google Meet, Google Docs and other collaborative tools in writing have affected second language writers in English writing in both positive and negative views. This review attempts to identify the most utilised collaborative tool in writing. It also determines the students' perceptions and the challenges in using collaborative tools to enhance English writing skill. The inclusion and exclusion criteria method are used as the guidelines in filtering articles collected from Google Scholar 14 articles which included full-text articles and journal articles in the year of 2020 and 2021 are analysed and synthesised. The results reveal that Google Docs is the most significant tool to write in English. Moreover, collaborative tools enable students to improve writing qualities and possess better cognitive skill when the online discussion between peers is allowed. Thus, the implementation of collaborative tools in writing brings many benefits to students and the education system, at the same time, stakeholders in Education have to defeat the challenges through online lessons.

Keywords : *Collaborative tools; Covid-19; English as Second language; Students' perceptions; Writing skill*

I. INTRODUCTION

The biggest crisis in this era, Covid-19 pandemic has forced many countries to shut down physical classroom lessons and switch to remote learning. In Malaysia, all schools and higher education institutions are closed to flatten the curve of corona virus cases. It is a great opportunity for educators to sharpen their skills by using collaborative tools in teaching and learning process. However, it also brings numerous challenges to educators and students who are used to carry out and learn through physical lessons in schools [1]. Thus, both parties, specifically, teachers and students are facing culture shock when all teaching and learning are substitute virtual platform for physical lessons [2].

Previously, education was emphasising on chalk and board method. It has gone through a vast transition when Industry Revolution 4.0 has become one of the important elements to engage with 21st century teaching and learning. Today, digitalised technologies and expanded multimodality become the tools to assist teachers while teaching English [1]. This education system

has encouraged learners to be equipped with 4Cs which are Communication, Collaboration, Critical thinkers and Creativity while acquiring a language in classroom. Besides that, Common European Framework of Reference for Languages (CEFR) has been gradually implemented in the education system according to students' academic level. This is to ensure the English proficiency in Malaysia can be recognised internationally.

In order to enhance students' language proficiency, speaking and reading are not only the elements to justify learners' English proficiency. Harmer (1998) supported by [4] stated that, writing is vital to support conversation among human being as it is part of the language skill. Students are encouraged to write academically by identifying the title, constructing a draft at the pre-writing stage. Then, editing and peer-feedback should be carried out in order to produce a piece of good writing [3]. Undeniably, writing has been proven as the most difficult skill to gauge as students must equip themselves with an intelligible input to produce a piece of good writing [4], [5]. This has shown that the key to improve English language is to encourage students to develop the four

fundamental skills, which are reading, writing, listening and speaking.

However, the sudden strike of Covid-19 has become the toughest challenges for teachers to tackle their students' writing ability [6]. Most students who learn English as second language (ESL) are having difficulty in structuring the ideas and producing good piece of writing, meanwhile, teachers are struggling on time constraint in guiding students to perform a piece of good work online. With these challenges, teachers prefer students to memorise the sample essay. Eventually, students require more guidance in writing task compared to other skills. The situation becomes more critical when the closure of schools is being extended due to the outbreak. This has caused the education sector of Malaysia almost collapse due to the impact of covid-19 pandemic.

Fortunately, with the development of technology, collaborative tools have made the writing lessons becomes more effective when colourful and lively tools such as mind mapping and online discussions are brought into lessons [7]. Discussion sessions with collaborative tools may advocate learners to practise writing actively. For instance, mind maps which have vibrant colours and shapes will make participants be motivated to write and the ideas written will retain longer in brains.

There is a lack of systematic review studies on the usefulness of collaborative tools in writing during Covid-19 and the students' perceptions towards collaborative tools in writing during Covid-19 pandemic. The paper is used to synthesise the results from empirical studies and peer-reviewed articles, particularly, the most utilised collaborative tools and the students' perceptions by using collaborative tools in writing during the outbreak. To ensure the studies selected are relevant to this systematic review, three research questions were constructed as guidelines in collecting data. A comprehensive analysis is discussed in the results and discussion part to answer the research questions formed. Research questions are as below:

- 1) What is the most utilised collaborative tool used in English writing during Covid-19?
- 2) How did students perceive collaborative tools in improving writing skill during the pandemic? and
- 3) What are the challenges of using collaborative tools in English writing during Covid-19

II. LITERATURE REVIEW

A. Corona Virus in Malaysia

Coronavirus disease 19, is also named as COVID-19 by the World Health Organisation, is a pneumonia which is originated from Wuhan, China at the end of year 2019. Due to the large cumulative number of positive cases in Malaysia, the ministry had announced that Movement Control Order (MCO) must be imposed at all states, effective from 18th March 2020. This suspension is vital to be taken so that the chain of COVID-19 could break soon. The Ministry of Education then announced that all educational institutions must stop operating to combat the spread of virus in schools as there has not any medicine to cure this virus yet [12]. All schools and institutions were required to carry out Emergency Remote Teaching (ERT) to ensure students do not stop learning.

Undoubtedly, the challenges in education become more serious when most of the teachers in the country were required to switch their lessons from physical to virtual platform. Apart from that, teachers in Malaysia are not well trained to teach in front of the screen. This has resulted those teachers and students' motivation in learning has been affected due to the unknown extension of MCO. This situation become worst when the internet connection of teachers and learners are not stable [13]. Fortunately, after struggling on online lessons for few months, the cases of Covid-19 had reduced. The government announced a 'Recovery Movement Control Order' (RMCO) for specific areas with low cases. All kindergartens, primary schools and secondary schools which located at RMCO area are allowed to resume physical lesson in July 2020. Due to the uncertainties, educators and students are forced to be more flexible with the mode of teaching and learning.

B. Collaborative tools in English writing

Collaborative tools are the applications used to improve the quality of teaching and learning online. According to [14], collaboration is a process where students work in a pair or a group and they are mutually participated by planning, listening to peers and sharing ideas to complete a task. It required teachers' guidelines and communication between learners to achieve the goals of the lesson.

According to the latest Malaysia Education Blueprint (2013-2025), the education system should be two ways communication and students are the main variable who direct to the learning objective of the entire lesson, meanwhile teachers play an important role in guiding and motivating students to be an active learner in classroom. In Malaysia's education system, 21st

century teaching and learning were emphasised more on Communication, Collaboration, Critical thinking, Creativity and Values. These fundamental standards are used as a guideline to produce active and competitive learner; therefore, they are able to learn explicitly through discussions.

The rapid growth of the internet has gradually become a practical tool in assisting teachers and learners to achieve the standards. Online education applications have been widely used as teaching platforms by teachers and learners while acquiring a language [10] as interactions between learners were formed. Through conversations, learners can share knowledge and discuss opinions without time limit. This has proven that the teacher-oriented approach has transformed to student-oriented approach as the teacher's role no longer fixed as an educator, but a planner, motivator, guider, and evaluator in teaching and learning. Students will be the autonomous character in gaining knowledge and this knowledge will not only for exam purpose, but it will be the skill in shaping their future.

To ensure this teaching strategy succeeds, collaboration is encouraged between teachers and learners. [9] mentioned in his study that online teaching and learning becomes more effective when collaborative tools are being used to facilitate educators to improve the quality of learning during online lessons. This statement was agreed by [15] that online lecturing is more interesting when online tools and materials are being utilised in online lessons during the critical period, Covid-19. However, in countries where English is recognised as second language, students' motivation is diminished when they were required to construct a piece of writing individually. Writing is the most challenging skill to develop where it involves sufficient knowledge on the topic assigned, grammatical aspects, construction of ideas and sentence formulation [16].

Although writing is a complex activity in learning a language, learners are still encouraged to produce genuine written works. This is because essay writing is a reflection on learners' performance in acquiring a language and it also shows learners' cognitive skill in developing their ideas through written form. Various research showed that learners' English writing performance was enhanced when collaborative tools were integrated into writing. Learners have to brainstorm, elaborate and negotiate their thoughts while constructing a draft. At the same time, peers will have a chance to review their product when there is an active discussion [17], [18]. Collaborative tools such as, Google Docs, Mind mapping, and WhatsApp had provided the opportunity to learners to express their thoughts

and feedbacks. These tools will be discussed comprehensively in results and discussion sections in this paper shows learners' cognitive skill in developing their ideas through written form. Various research showed that learners' English writing performance was enhanced when collaborative tools were integrated into writing. Learners have to brainstorm, elaborate and negotiate their thoughts while constructing a draft. At the same time, peers will have a chance to review their product when there is an active discussion (Bikowski & Vithanage, 2016). Collaborative tools such as, Google Docs, Mind mapping, and WhatsApp had provided the opportunity to learners to express their thoughts and feedbacks. These tools will be discussed comprehensively in results and discussion sections in this paper.

Previous Study on Collaborative Tools

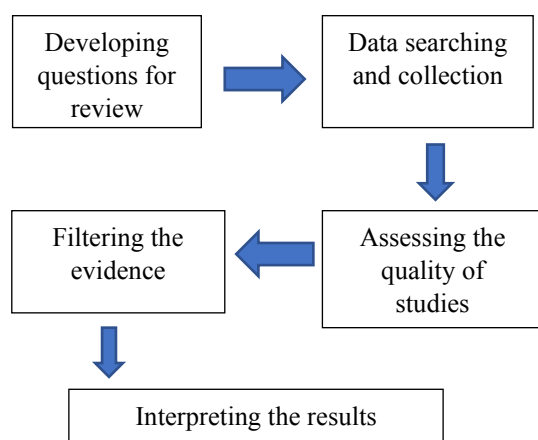
Numerous research studies had been done to determine the importance of collaborative tools in English writing. Yet, past studies had shown that collaborative tools in writing had affected second language writers in English writing in both positive and negative views. There are some researches conducted by [2], [4] have highlighted that collaborative tools encourage learners to think, write, share and improve their writings among the users. [10] also agreed that writing collaboratively enable writers to produce better work with low grammatical errors and vary vocabulary. A research conducted by [8] highlighted that, English proficiency of secondary students has improved according to their writing task. This has shown that students are more motivated to practise writing when they are exposed to use collaborative tools in writing. Furthermore, a research from Medan, Indonesia had proved that mind mapping technique is effective to strengthen students writing ability in English [9]. They can explore more information and exchange ideas through the applications in writing activity [10]. However, [11] mentioned in the study that students have a negative view in online learning due to personal issue and time constraint.

III. RESEARCH METHODOLOGY

All valid information could be retrieved from the computerised or printed version while completing the literature review [19]. Google Scholar was the database used to search for articles and journals. Reviewer adopted and adapted the conceptual framework by [20] in the process of collecting resources related to the field from March 2021 to April 2021 to run the systematic review. With the guidelines provided by [20] it provided a

clearer direction for the reviewer to analyse, synthesise and evaluate the ideas in collaborative writing field [19]. Figure 1 shows the procedures of systematic literature review:

Figure 1



A. Developing questions for review

Writing considered as a difficult task for most second language learners as it requires concrete ideas and strong vocabulary foundation. In addition, writers must have wide knowledge on grammar. In 21st century teaching and learning, collaboration and teamwork become the crucial skills to be equipped by the learners. With the innovative tools invented by the experts, collaborative tools have been used widely by educators. In this study, the reviewer aims to investigate the students' perceptions and the challenges of using collaborative tools in writing during Covid 19. The research papers which fulfilled the criteria of the review and published between the year of 2020 to 2021 will be analysed in this review. The research questions are: 1) What are the most utilised collaborative tool used in English writing during the pandemic? 2) How students perceived collaborative tools in improving writing skill during pandemic? and 3) What are the challenges in using collaborative tools in online platform during Covid-19?

B. Data searching and collection

The second phase is searching for articles related to the keywords of the review topic. This phase is divided into two parts, where the first part is to search for articles and journals which are relevant to the research topic. Then, collect those articles that fulfilled the criteria listed. To get as many relevant articles as possible, a wide range of English as Second Language, collaborative tools, writing skill, 21st century learning and Covid-19 were searched to determine the tools used to enhance writing in the 21st century. With the keywords above, there are 1,610 articles are available to review. To avoid publication bias in this study, Google Scholar, which is a reliable database, is used to collect data. Besides, proceedings papers and book chapters were excluded as irrelevant. Hence, empirical studies which are published between the year of 2020 to 2021 and relevant to the study are chosen as the references in the study.

C. Assessing the quality of studies

To ensure the reliability and validity of the evidence, all articles are refined by using the inclusion and exclusion criteria measurement. Full-text articles that fulfilled both inclusion and exclusion criteria will be selected. Both principles enable the reviewer to get essential results from those studies. Table 1 below showed 7 inclusion criteria and 7 exclusion criteria as the characteristics of related articles. Those articles that were selected will be used by the reviewer to answer research questions.

Table 1

Inclusion and exclusion criteria

Inclusion criteria	Exclusion criteria
Collaborative tools used in enhancing English writing skill	Collaborative tools or mind mapping which are not referring to English language writing
Studies must include research methodologies	Studies without detailed research methodologies

The respondents are from primary, secondary or tertiary education background	The respondents are from special education
Show collaborative tools used in teaching during the Covid-19 pandemic	Writing skill with blended learning or flipped learning
Both the students' and teachers' perceptions are accepted	Parents' perceptions of ESL learners writing skill
Collaborative tools in writing English essay	Not published journal articles or empirical studies
Published between the year of 2020 to 2021	Articles that are not published between 2020 to 2021 or during pandemic period

D. Filtering the evidence

It is a challenging task to summarise the gist of the articles [20]. The reviewer prefers to use Google Scholar as the database engine in completing this study. The keywords used to identify relevant articles are "Collaborative tools in ESL writing", "Collaborative tools used in English writing during Covid-19", and "Collaborative tools in enhancing English". To ensure the accurate data are cited, articles chosen must be published between the year of 2020 to 2021. The search engine showed 1610 results that matched with the selected time range. The results then excluded non-journal resources (950 results left) and non-English studies (remained 104 articles). Later, the reviewer had removed 48 results that did not provide full-text articles. 42 articles did not match with the inclusion and exclusion principles listed above. Hence, 14 articles remained in this study. The results of the articles will be discussed in the results section.

E. Interpreting the findings

The last stage is to analyse the results from the selected articles. Variety of methods were used to interpret the findings, such as qualitative, quantitative, or mix methods. All 14 articles, that undergone the process of filtering the evidence will be analysed in depth by specifying on the effectiveness of collaborative tools and students' perceptions using collaborative tools in writing. Table below illustrated the types of different methods used according to the articles.

Types of methods	Number of articles
Quantitative	2
Qualitative	6
Mix method	6

Table 2

Number of articles

IV. RESULT AND DISCUSSION

14 articles were analysed extensively to answer the research questions mentioned above. Reviewer had used table, graph and systematic forms to show the results comprehensively. Table form was used to answer research question 1, which is the most utilised collaborative tools used by students in English writing during Covid-19 pandemic. The data showed according to year and the frequency of using collaborative tools used by researchers in previous studies. Moreover, the systematic form was used to answer research question 2 and 3 which is the students' perceptions in using collaborative tools to enhance writing and the challenges in using collaborative tools while writing on online platform during Covid-19 outbreak.

Table 3

Number of articles according to year

Category	Sub-category	Number of articles (N)
	2020	6
	2021	8
Total		14

A. Research question 1: Which is the most utilised collaborative tool used by learners in English writing?

The table below showed the collaborative tools used by learners in English writing. 8 (57%) articles showed that Google Docs was highly used among teachers and learners in English writing. Then, followed by WhatsApp, Mind map and other tools as mentioned below. From the result, Table 4

shows that Google Docs was highly utilised by learners to brainstorm and elaborate the sentences in the pre-writing stage.

Table 4

Frequency of the usage of collaborative tools

Category	Sub-category	Number of articles (N)
Collaborative tools used	Google Docs	8
	WhatsApp	6
	Padlet	1
	Mind map	6
	Wikipedia	1
	YouTube	1
	Tencent Classroom	1
	Telegram	2
	Instagram	1
	Blogs	2

B. Research questions 2: How students perceived on collaborative tools in improving writing skills during the pandemic?

- [21] Online lessons are more flexible in terms of time and venue. With the advancement of technology, students are motivated to learn via WhatsApp.
- [22] Students of Saudi Arabia stated that Wiki writing is a strong pedagogical tool in collaborative writing as they are attached to learn from internet during Covid-19.
- [23] Students perceived that their writing skills had improved when teacher gave them feedback individually after marking through WhatsApp or Telegram.
- [8] Online learning had given the students a deeply personal and meaningful experience during this pandemic. Students can self-evaluate their writing skills from Google Docs. Furthermore, students have the opportunity to develop the writing skills from teammates.
- [24] Students showed positive attitude in collaborative learning with friends during Covid-19 pandemic as they can use Google Docs and Google Meet to discuss and complete their writing task together with peers. Besides that, students were able to engage and to complete the task according to the requirements with high proficiency.
- [6] Students recognised and appreciate the value of online lessons. Moreover, students have more opportunities for interaction with their instructor and peers. However, the collaboration tasks by lecturers had decreased due to the

pandemic. To make sure students can engage with each other through online learning, students would use Tencent Classroom to explain and discussing materials with classmates.

- [25] WhatsApp enables students to participate in the discussion actively and they can understand the content effectively. Students can write a draft through WhatsApp before structuring a complete writing task.

Previous studies had shown the results on the stakeholders, specifically the students' perceptions of using various kinds of collaborative tools in enhancing English writing skill. The analysis had proved that students were able to write effectively when collaborative tools were being integrated into online writing classes. From the reviewed articles, it had shown that students had positive perceptions after using collaborative tools in their English writing task. Students have more freedom in attending the lessons in terms of learning and revising. This is supported by [8] where online lessons are more flexible in terms of time and venue for students and this had motivated the students to learn English writing. Moreover, Students' writing skill has improved although they are having online lessons at home. [8] further stated that, students' writing skills had improved when teacher gave them feedback individually after marking the essays online. This was agreed by [8] in their study as they can have self-evaluation and discussion session with their teacher online. Furthermore, students' collaboration skill was developed to adapt with the new norms of teaching and learning pedagogy. [29] stated in his study that students are more attached to Google Docs and Google Meet as they used them to discuss and produce their writing task together with peers with high proficiency. Another study by [29] emphasised that students participated in the discussion actively and they can understand the content effectively when a draft was constructed before writing an essay. Moreover, a study from China by [29] stated that students became more appreciative on having online lessons during Covid-19 and the interaction between instructor and peers were not being decreased as they could discuss the materials online. These studies had proved that students' collaboration in English writing had increased by having online lessons during the pandemic.

C. Research question 3: What are the challenges in using collaborative tools to write on online platform during Covid-19?

- [15] Not all lecture materials and assessments were suitable for students as students' proficiency level are not being tested in advance.

Moreover, the unstable and large usage of internet have limited lecturing duration.

2. [13] Teachers' low readiness in online teaching has affected the progress of teaching and learning. Besides that, the environment of students during online lesson was not suitable for students to study and this had caused students are not motivated in learning from home.

3. [26] The shortage of facilities, low literacy of teachers in technology and poor internet connection had limited students' exploration in English writing through online learning.

4. [7] The limitation of internet connectivity and the suitability of teaching material taught through online lessons were the main concerns of the students. Moreover, the lack of communication between lecturer and students had stunted the learning motivation.

5. [27] The achievement gap between autonomous and dependant students was very big and it was an undeniable challenge for teachers. Autonomous students were more motivated to score excellently while less motivated students in Oman scored badly in English writing test.

6. [23] Students' participation and lack of interaction had put off their motivation in teaching and learning. Students encountered difficulties in attending the lesson when the internet connection was not supportive. Students could not interact with their teacher as the lesson would be interrupted when questions were being asked.

7. [28] The use of video did not fully encourage senior high school students to write willingly as they did not perform well in physical lessons before they were being switched to online learning method. Students were also easily being distracted by the surrounding noise during the online lessons.

8. [6] Tencent Classroom was designed for mobile users only as it was owned by WeChat application. Hence, students had difficulty in viewing the materials clearly. The internet connection was unstable had seriously affected the process of online learning. Besides, students could not review the interactive platform between lecturer and students as it could only be viewed by the host. Moreover, it is difficult to make sure students' concentration although online pop quizzes and calling attendance were taken during the lessons.

9. [25] Students got distracted easily by the WhatsApp notifications which were not relevant to the subject they were learning at that moment. This might cause them forgot their ideas while structuring the essay writing.

There were some challenges which needed to be considered by the educators in the future if collaborative tools were suitable to be used in online classroom for a long period. The unstable internet connection would demotivate students from learning online. Besides, [7], [15] had highlighted in their studies that poor internet connection had become the factor which influenced students not to attend online lessons during Covid-19. Besides that, teachers' literacy in ICT would also affect the progress of English lessons. Students would get bored and lost their concentration in online lessons. [26] agreed with the statement where teachers themselves were not well prepared in terms of online classroom management. Although teacher had plenty of materials to teach, the time was wasted in exploring the application would affect the quality of the lesson. Interestingly, teachers' online classroom management should take into consideration when students were more easily being disturbed by the uncontrolled variables. This had been agreed and proven by [6], [28] where students would not be able to control themselves from irrelevant notifications, chat groups and environment distraction. Hence, online lessons which had been conducted during this pandemic, have encouraged the students to collaborate in English writing, yet there were some barriers which should be considered if collaboration is more suitable and effective in physical classroom or online classes.

V. CONTRIBUTION

This systematic review was carried out to identify the most effective tool which could encourage students to strengthen writing.

Moreover, this review will benefit those teachers who are teaching English as Second Language (ESL). Through this review, teachers can consider using these collaborative tools stated in this paper as a reference while teaching in the classroom. However, students' acceptance level should be taken into consideration. ESL teachers should choose the most effective tool before conducting writing lessons by identifying the students' English literacy and network connection issues.

Besides that, this review can assist those researchers who would like to carry out empirical or literature study on using collaborative tools in writing. It will help researchers to focus on the specific collaborative tool while conducting the research.

VI. CONCLUSION

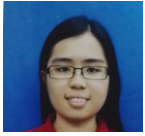

Collaborative tools were strongly recommended for teachers to include it in the online classroom in this critical pandemic. Google Docs, Mind Mapping and WhatsApp are functioned as the most prevalent platforms to encourage learners to develop their skills with peers, either virtually or physically, without the time and place constraints. This has shown that student will become an autonomous individual and not dependent on teachers to provide knowledge in 21st century teaching and learning. In addition, through collaborative writing, learners' ability to discuss, argue and negotiate ideas with classmates has obviously improved. These skills can assist them to produce excellent writing although they are learning English at different levels. From previous studies, they had proved that collaborative tools play a significant role in writing classes as students become active participants and their anxiety in using English language in writing is reduced. However, there are some challenges, such as internet connection and pre-lesson preparation, which need to be overcome by the stakeholders in education field, especially the ministry and teachers. For future research, reviewer suggested future reviewer may narrow down the research on teachers' perceptions in using collaborative tools in teaching English in the paper. In conclusion, teachers are suggested to incorporate the use of collaborative tools while teaching writing lessons in order to produce English writers with good vocabulary and sentence structure.

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