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Effects of Google Classroom on ESL/EFL Teaching During the Covid-19 Pandemic: A Systematic Review

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ABSTRACT

The systematic review was completed to examine studies on the effects of Google Classroom (GC) usage as a learning technology on ESL/EFL learning during the COVID-19 pandemic. Most studies on this matter were one-off instead of longitudinal and primarily focused on the perception of its users. This study identifies gaps and additional aspects that could be investigated in future studies. Three databases, Scopus, Web of Science, and Google Scholar, were explored to collect relevant data. Primary searchers between 2020 and 2022 revealed 217 studies on the topic under investigation. After scrutinizing abstracts and removing duplicates, 12 were retained for further analysis. A thematic analysis was conducted to derive the benefits and issues of using GC in learning English. It was revealed that GC could play a role in increasing students' achievement in the four primary skills in the English language, listening, reading, speaking, and writing. Issues with using GC mainly revolved around external factors rather than the learning platform itself. It is recommended that future studies look at other aspects of GC usage in language learning, such as its specific features and learning materials uploaded to it, and whether different online learning platforms than GC could yield similar results to GC.

1. Introduction

Language is one of the essential elements that affect world communication. Students are taught to master proficiency in different English-language skills, such as listening, speaking, reading, and writing to communicate fluently in their daily lives. It is believed that language teaching and learning experiences have evolved along with the advancement of technology. Interactive online materials could motivate learners, enhancing their language learning experiences and interaction in the classroom [1-2]. However, such a scenario might be the case in normal conditions.

Nonetheless, the need for technology in language learning is different during emergencies. The unexpected COVID-19 pandemic affected every aspect of human life and changed the learning

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experience worldwide. Around 300 million students stayed in their homes after their countries' governments closed schools to curb the spread of the pandemic [3]. There were no face-to-face meetings with students, and teachers needed to resort to online platforms to deliver their classes. Due to the outbreak of COVID-19, the educational system has deteriorated remarkably across the globe [4-5]. There has been an increased reliance on Web-based learning, especially in higher learning institutions [6]. Some online platforms include Google Classroom, WhatsApp, Zoom, Telegram, and others. Shifting the teaching and learning experience to online platforms poses different challenges and impacts for teachers and students.

Regarding the English language learning experience, a virtual platform enhances the experience by allowing students to share articles, books, and tutorial videos. It is believed that the learner's learning style preferences will be the primary concern in imparting the input of a language as the content the learners will only absorb the information according to their [7]. Meanwhile, every learner's way of learning a second language may differ, and virtual learning at once will only partially solve it [8].

From another perspective, all four English skills could only be partially developed and imparted to the learners through online teaching and learning [9]. A study by Kacetl and Klímová [10] came with similar results. In another study, Yen and Mohamad [11] mentioned that the pupils faced significant difficulties in spelling and various challenges in improving their abilities to spell online during the COVID-19 pandemic. In addition, Syahrin and Abdalla [12] have also mentioned that negative and positive factors influence the effects of the COVID-19 pandemic on English language learning. Many studies have been conducted on using virtual platforms to teach and learn English. This study will investigate a specific online learning platform, Google Classroom (GC).

Google Classroom (henceforth GC) is an application used worldwide during the COVID-19 pandemic [13]. It is a platform where teachers create an online interactive learning process that allows students to communicate with their teachers and peers [14]. It is a free application that integrates documents and emails saved in storage. Teachers can upload files, videos, links, announcements, and assignments for students. The documents and files could be edited and shared with other classmates in class, allowing collaborative activities among students.

Furthermore, upon finishing an assignment, students can upload their work by sending it to the teacher or posting it to the classroom board in GC. This application can also be used on any device. GC is an effective interactional tool for learning because it allows active participation through online discussions and tasks [15]. Northey *et al.*, [16] added that technology facilitates and enhances students' engagement, which is critical to obtaining the desired learning outcome, such as sending information, starting discussions, and distributing and collecting tasks.

Multiple studies investigated the effectiveness of GC in the English as a Second Language (ESL) and English as a Foreign Language (EFL) teaching and learning processes. Hasan *et al.*, [17] explored the challenges and benefits of Web 2.0-based learning among international English as a Second Language (ESL) students. For instance, Mulyanie *et al.*, [18] investigated students' perceptions of using GC. Kawinkoonlasate [19] mentioned that students were initially nervous about learning through GC. However, the learners could familiarise themselves and adapt to the new "normal" teaching method, and they began to enjoy their learning anew.

Meanwhile, Ekahitanod [20], who analysed the perceived efficacy of GC usage in various English courses, reported that students with prior experience using GC had better perceptions than first-time users. However, the students' perceptions of its efficacy were similar in a general English course versus an English for specific purposes course. Saidu and Al Mamun [21] investigated factors influencing teachers' acceptance and behavioural intentions to use it as learning management.

Additionally, Shak *et al.*, [22] discovered that using GC allowed students to acquire new knowledge and language skills due to its ease of use, usefulness, flexibility, and accessibility.

From the teachers' perspective, Wen and Hua [23] studied teachers' intention to adopt online educational strategies in their classrooms. In ELL classrooms, teachers often utilise various techniques and approaches for language teaching [24]. However, problems arose when teachers and learners used English in ESL classroom settings [25]. Rahman *et al.*, [26] mentioned that Google Classroom facilities helped facilitate English language learning and teaching. The applications also provide students with additional information since they incorporate numerous learning resources that might not be available through the traditional method. Nonetheless, in recent years, a few researchers have also conducted experimental studies incorporating contemporary social media apps (i.e., WhatsApp or Telegram) and integrating them into online ELL classrooms [27].

Despite all the studies conducted, an overwhelming number focused solely on students' and teachers' perceptions of how Google Classroom facilitated ESL classrooms' teaching and learning during the COVID-19 pandemic [28,29]. Limited experimental studies compared the effect before and after using GC in ESL and EFL learning with English test scores. In addition, only a few looked at how GC has impacted teaching specific English skills [30]. Hence this study attempts to answer the following research questions:

- i. What are the benefits of GC in ESL/EFL learning during the pandemic era?
- ii. What issues plagued the use of GC in ESL/EFL learning during the pandemic era?
- iii. What gaps and additional aspects could be included in future studies on using GC in ESL/EFL learning during and after the pandemic?

2. Methodology

This study employed a systematic review method. This method is scientific in gathering insights into a specific research domain while aiding future studies to identify gaps and trends in previous and current studies [31]. In this review, the authors adapted a publication standard called Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA), which was suggested by Moher *et al.*, [32]. Through this standard, the authors explained the eligibility criteria, information sources, data-collection processes, data items, and synthesis of the results. For example, this review looked at reviewed publications indexed in recognised and reputed journals to obtain an overview of the use of GC in teaching ESL and EFL during the COVID-19 pandemic. Among the aspects focused on are the English language improvements shown by the study participants after using GC during the pandemic period and the benefits and challenges of using GC to learn English during this period.

2.1 Selection of Criteria

Three databases were selected as information-searching resources. The first two databases are Scopus and Web of Science (WoS), which were chosen because of their advanced search functions and controlled article quality, apart from their status as the leading index databases in the academic world [33]. The third database is Google Scholar, which was selected because it is currently the most comprehensive academic search engine, with almost 400 million records [34]. Not only that but Google Scholar was chosen to "minimize the risk of publication bias" [35] because the database also includes grey literature or articles not formally published by leading databases [36].

2.2 Systematic Review Process

2.2.1 Identification

The first phase in this review is the identification phase, performed in June 2022. The process involved keyword identification for information-searching purposes. These keywords were then converted into search strings used in both databases to identify relevant articles for this review. Table 1 summarizes these search strings.

Table 1

Search strings for the identification stage of the review

| Databases | Search string |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Scopus | (TITLE-ABS-KEY ("Google Classroom") AND TITLE-ABS-KEY (COVID-19) AND TITLE-ABS-KEY (e*I)) |
| Web of Science | "Google Classroom" (Topic) and COVID-19 (All Fields) and E*L (All Fields) |
| Google Scholar | ESL "covid 19" "Google Classroom" -perception -attitude -problems EFL "covid 19" "Google Classroom" -perception -attitude -problems |

2.2.2 Screening (inclusion and exclusion criteria)

The screening process then took place to determine the inclusion and exclusion criteria for the articles included in this review. The first criterion is the year of publication. The articles chosen for this review must be published between June 2020 to June 2022. This period was determined because these are the years when the COVID-19 pandemic has disrupted learning processes in educational systems worldwide. At the same time, this criterion is in line with the focus of this review on the use of Google Classroom in teaching ESL/EFL during the COVID-19 pandemic. The second criterion is language, in which only articles in the English language were included in this review to prevent the need for a translation that might lead to misinterpretation. The third criterion is document type, in which only journal articles with empirical data were selected for this review.

The fourth criterion is the respondents, where only studies that involved students were selected for this review. The fifth criterion is on the context of the studies, where only studies that took place in the context of ESL/EFL learning during the COVID-19 pandemic will be selected in the review. The sixth criterion is about the online learning platform used by the studies, in which only the studies that solely used Google Classroom as their online learning platform will be selected for the review, and those that employed multiple online learning platforms will be excluded. The seventh criterion involved selecting experimental studies with test scores or specific instrument(s) to gauge any improvements in the respondents' English Language achievement after using Google Classroom. This criterion also excluded studies based only on perception with no experimental data to support them. Table 2 below summarizes these criteria:

Table 2
 Inclusion and exclusion criteria for the study

| Criteria | Inclusion | Exclusion |
|-------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| Publication Timeline | June 2020 to June 2022 | 2019 and earlier |
| Language | English | Non-English |
| Document Type | Journal articles with empirical data | Conference proceedings, chapters in a book, book series, book reviews, books, etc. |
| Respondents | Students | Teachers |
| ESL/EFL learning during the COVID-19 pandemic context | Conducted within the pandemic context | Conducted not within the pandemic context |
| Online learning platform | Google Classroom ONLY | Multiple online learning platforms |
| Test scores / instrument(s) | Studies with test scores or specific instrument(s) to gauge respondents' English language achievement after the use of GC | Studies that are perception based without any experiments. |

2.2.3 Eligibility

In the initial stage, 217 documents were gathered from the Scopus (66), Web of Science (21), and Google Scholar (130) databases based on the search strings in Table 1. After that, the first stage of determining the eligibility of the documents was conducted manually to remove the duplicated documents based on the documents' titles which excluded six documents, leaving 211 for further screening. Next, 46 documents that were not published in English we excluded, leaving 165 documents for the next stage. After that, 58 documents were excluded because they were not full journal articles with empirical data, leaving 107 documents to be scrutinized further. Out of this, 55 articles were excluded as the studies reported did not count students as their respondents.

Out of the remaining 52 articles, six were taken out as the studies reported by these articles were conducted outside the context of ESL/ESL learning during the COVID-19 pandemic, leaving 46 more articles for the next screening stage. Then, 21 more articles were excluded because they used multiple online learning platforms in their studies and not Google Classroom only, leaving 25 articles for the final screening stage. In the final stage, 13 articles were excluded because the studies reported by these articles were perception based. They did not have any test scores or specific instruments to engage their respondents' English language achievement after using GC to learn English during the pandemic, leaving the final 12 articles to be reviewed in this paper. Table 3 below sums up the screening process for the articles which are eligible for this review:

Table 3
 The screening process for the eligible articles for this review

| Exclusion Criteria | Excluded Articles | Remaining Articles |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|--------------------------------------------------|
| *Duplication between databases | 6 | 211 (from the initial 217 articles) |
| Documents that are not in the English language | 46 | 165 |
| Documents that are not full journal articles | 58 | 107 |
| Articles on studies that did not count students as their respondents | 55 | 52 |
| Articles on studies that were not conducted within the context of EFL/ESL during the pandemic | 6 | 46 |
| Articles on studies that used Google Classroom ONLY as their online learning platform. | 21 | 25 |
| Articles on studies that did not have test scores or specific instruments to engage their respondents' English language achievement during the pandemic. | 13 | 12 (the final number of articles to be reviewed) |

Figure 1 below summarizes the methodology of the study:

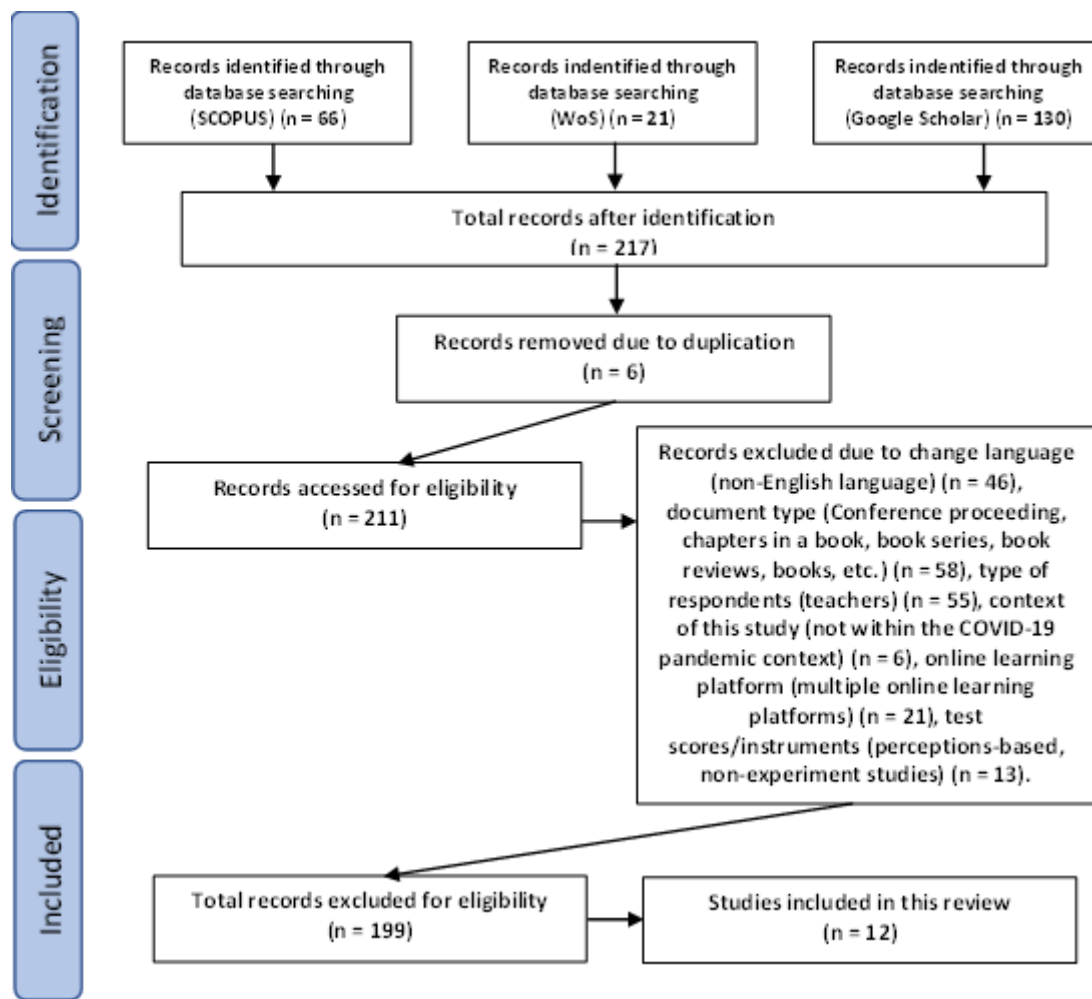


Fig. 1. The methodology of the study

3. Results

3.1 Quantitative Findings

3.1.1 Country

Most of the studies reviewed (9 studies) were conducted in Indonesia [37-45]. While one study was completed in Iraq [46], Thailand [47], and Malaysia [48].

3.1.2 Respondents

Most of the studies (7 studies) involved undergraduates as their respondents [38,39,41,44-47]. Meanwhile, four studies counted secondary school students as their respondents [37,40,42,43], and one study was conducted with primary school students [48].

3.1.3 Skills

Four studies in this review focused on English Reading skills [38,39,42,45]. Apart from that, three studies centred on Speaking Skills [43,46,47], while two studies each spotlighted English Vocabulary

[40,48] and Writing skills [37,41]. In this review, only one study looked at all English skills in general [44].

3.1.4 Design

Almost all selected studies in this review utilized experimental research design, with four of them using a proper experimental design with the presence of both experiment or treatment and control groups [37,42,46,48]. Seven studies employed a quasi-experimental design that lacked assignment of control groups [38-41,43-45]. Meanwhile, one study used a case study as its research design [47].

3.1.5 Data collection method

Eight studies in the review only employed quantitative methods to collect the data. Out of these eight studies, six of them solely relied on pre-and post-test scores to gauge the improvement of the students after the use of GC in learning English during the pandemic [37-42,43]. Meanwhile, another two studies combined the scores and multiple-choice questionnaires [42,44].

On the other hand, four studies used qualitative and quantitative methods to collect their data. Apart from test scores, Jaber [46] used observations, interviews, and questionnaires, Meinawati *et al.*, [45] utilized observations, interviews, and learning diaries, and Yen & Mohamad [48] used field notes and interviews to collect their findings.

Although Quyen and Ha [47] did not use pre-and post-test scores to collect their data, they still used qualitative and quantitative methods through multiple choice questionnaires and observations.

3.2 Qualitative Findings

3.2.1 Benefits of Google Classroom in ESL/EFL learning during the pandemic

The reviewed studies have revealed numerous benefits of this application, particularly in reading, writing, speaking, teaching, and learning.

There are several benefits of Google Classroom in the reading process, such as promptness in providing feedback, convenience in conducting discussions, and promoting higher engagement. According to Meinawati *et al.*, [45], using Google Classroom enables teachers and students to conduct discussions conveniently, and prompt feedback will be given to students. Not only does GC helps students to submit tasks online, but they also get to resubmit an amended assignment. GC also stimulates the students' enthusiasm as they become more engaged in reading. Meanwhile, another study by Nuralim and Dwinata [39] found that teaching strategies for reading comprehension questions with videos through Google Classroom will lead to higher student engagement. The motivation level of students will be raised as Google Classroom fosters active language engagement, which may impact reading comprehension. Another finding from this study revealed that Google Classroom also facilitates reading classes, particularly in terms of providing unlimited space and time for practice. Based on research by Wahyuningrum [42], the findings revealed a significant effect on the reading ability of students of those with low and high reading interest when Google Classroom is used in learning. Their interest in learning and their ability to understand the material significantly increased due to Google Classroom. Thus, the research findings above have revealed numerous benefits of Google Classroom in reading.

In addition to reading, Google Classroom has also led to numerous positive effects in another area, namely writing skills. A study conducted by Daulay *et al.*, [37] has revealed that the use of Google Classroom successfully improved the writing skills of students, as the application has led the

students to show a higher level of enthusiasm about online learning, promoted cooperation among them, and developed the student's ability to use technology in their learning process. Furthermore, this application also enables teachers to provide prompt feedback to their students. Another study by Susana and Wahyu Brahma [42] found that Google Classroom could improve the writing ability of students by increasing the level of involvement of students, providing the space for students to discuss learning barriers during online discussions, and providing extra preparation time and discussion outside of class hours. The study also revealed that this application also helped students to study the material more comprehensively and to focus on learning content that cannot be fully discussed during face-to-face meetings, as well as providing students with a sense of empowerment of active and independent learning. This matter, in turn, will increase the student's understanding of accountability to study independently in a supportive environment.

Besides writing skills, Google Classroom also has various benefits in terms of speaking skills. Jaber [46] has found that students are highly interested in e-learning as the application allows them to put forth their points, letting them enjoy their interactions. The students document their practice sessions and can listen to them before submitting the audio lessons to their instructors. Therefore, this allows the students to ponder upon their grammar, fluency, accent, intonation, and other important aspects of speech. Another study conducted by Quyen and Ha [47] revealed that the student's awareness of their strengths and weaknesses in their speech has increased with the use of Google Classroom.

Moreover, the students appreciated the prompt feedback they received, which helped them improve further. In addition, using this application has helped the students save time in finding the comments on their speaking performances made by their teachers. In a nutshell, Google Classroom has promoted a higher level of engagement among students, leading to improved speaking skills.

Another benefit of Google Classroom, besides improving students' speaking skills, is enhancing their vocabulary. A study by Pasaribu *et al.*, [40] revealed that students could quickly catch lessons with more enthusiasm in learning English, making the learning process more effective. Students also found it easier to construct simple sentences by using the words they learned. The application made it easier for students to learn the vocabulary as the explanation was clear, easy to understand, and engaging. Thus, it is no surprise that the students responded well and showed a marked improvement in expanding their vocabulary.

On the other hand, the study by Yen and Mohamad [48] revealed that Google Classroom improved and increased spelling motivation among students. The activities using this application promoted a connection of the learner's previous knowledge with new information, which resulted in active learning. In other words, it led to effective learning. Google Classroom is a suitable platform for active learning as it enables students to be more engaged in learning, master word spelling, and enjoy the benefits of improving their spelling skills. This application created a supportive learning environment as students could participate actively and recall the spelling of the words as they received corrections and compliments from their peers. Overall, this has led to a more purposeful learning process. The attractive features and interface of the application also increased the level of enjoyment in learning among the students who provided attractive images and the correct pronunciation. This situation is different from the traditional lessons in class.

Google Classroom has numerous benefits in the teaching and learning process in general as well. According to Isda *et al.*, [43], this application helps students to complete and submit their assignments without being limited to time and space. It enables teachers to provide paperless information, videos, reading, and other learning material whenever and wherever. This application is also simple, as all the features are integrated and correlated. Teachers keep all the files in Google

Drive. A study by Makarim and Sari [44] revealed that 70% of students feel happy learning the application.

Moreover, 80% stated that the available features are easy to use, while 70% revealed that the application enabled them to utilize their time efficiently. In addition, 70% found that the lecture material submitted through the application was easy to understand. The study also found that the students found the application mobile-friendly for beginners as the features were easy to understand. Besides that, the availability of the task review feature enables students to view their assignments before sending them, and the presence of a discussion room in the comment column allows the students to see announcements made by their instructors. This application is free and ad-free, so the teaching and learning activities are more focused with no disruptions.

Furthermore, a study by Husnussalam [38] found that the application also simplified creating, distributing, and grading assignments without being face-to-face. Besides that, it helps streamline the sharing of files between teachers and students, as teachers can monitor each student's progress and return the assessed work with comments. This study also revealed that students' writing and reading performance has increased as their scores have consistently improved.

Although there are various reported benefits of the use of GC in ESL/EFL learning during the pandemic, as previously discussed, it is worth noting that these benefits may differ in terms of their impact across different study populations, contexts, and teaching practices. This issue will be further discussed in subchapter 4.0 (Discussion) later.

3.2.2 Issues in using Google Classroom in ESL/EFL learning during the pandemic

Nevertheless, Google Classroom could be better, as some studies have indicated its shortcomings. According to a study by Daulay *et al.*, [37], some teachers need further training and exposure to fully utilize the application in the teaching and learning (T&L) process. Moreover, some teachers need more knowledge in using technology and reconceptualizing the methods in their teaching [48]. The study by Daulay *et al.*, [37] indicated an unstable Internet connection, while Makarim and Sari [44] revealed a lack of Internet coverage as a barrier to teaching and learning. Besides that, Isda *et al.*, [43] showed that students also required F2F interaction to socialize with their peers. Furthermore, Jaber [46] found that teachers needed to provide adequate feedback, whereas students wanted more corrective feedback from their teachers.

Moreover, a study by Makarim and Sari [44] indicated that not only does the Google Classroom application have an unappealing appearance, but the file submissions must be monitored. At the same time, the time settings can be changed. This study also revealed that despite the various benefits of this application, students still prefer F2F interaction as an online system can never replace it. Moreover, 80% of students needed help understanding the features of this application, while 20% preferred to use another application. Besides that, 80% faced problems purchasing Internet quota due to financial constraints, while some lecturers found that students were unprepared. This situation is evident when the latter is absent from class due to forgetfulness and faces distractions while communicating online. In addition, Quyen and Ha [47] revealed that students were stressed when they were required to make speaking videos every week while teachers had to spend much time typing the feedback to all students. Before the pandemic, the in-person class required the teachers to give feedback only to some students directly, as the class hour needed to be longer for each student to have the opportunity to present and speak in class.

4. Discussion

4.1 Gaps in the Current Literature on using Google Classroom for ESL/EFL Learning During the Pandemic

This review has exposed several gaps regarding the research on using Google Classroom and its effect on English language learning, whether in the EFL or ESL contexts during the COVID-19 pandemic. We need to conduct these studies to get a fuller picture of how such a platform like Google Classroom will impact students learning of the English language.

In several areas, studies on Google Classroom and its impact on ESL and EFL learning could be focused on in the future. The first area should compare Google Classroom and similar platforms or learning management systems in ESL and EFL classrooms. Such studies are crucial to see whether Google Classroom affects students' achievements exclusively or if similar achievements can be emulated through other learning platforms.

Second, future studies could look deeper into specific Google Classroom aspects that could help students learn English in ESL or EFL classrooms. Such studies could focus on the unique characteristics of Google Classroom that helped or hindered English learning, such as its features, layout, or interface.

Thirdly future studies could look at the effects of the materials uploaded or tasks assigned to Google Classroom. This matter is critical in evaluating whether it is the effect of such materials/ tasks or the platform that has affected students' achievements in learning English through these platforms.

Fourth, it is also suggested that future studies be conducted in multiple sites and locations. All studies in this review were conducted in a single educational establishment. By conducting future studies using a similar methodology in different locations, comparisons could be made. More apparent conclusions could then be deduced on the effect of using Google Classroom in ESL/EFL classrooms during the pandemic, whether factors unique to a particular location could influence the study's result, or whether the same result will be replicated in other areas.

Fifth, future studies could look at external factors and how these factors might affect students' achievements in ESL or EFL learning using Google Classroom. These factors include students' perception of technology and familiarity with the platform, in this case, Google Classroom. Other factors could consist of students' Internet connectivity and accessibility. Studies could also look at the device factors, whether the availability of devices or their conditions could play a role in determining the students' achievement in English language learning through Google Classroom.

4.2 Generalizability of Findings to Other Contexts

In addition, since most of the selected studies were conducted in Indonesia, there will be questions about the generalizability of the findings to other contexts and cultural settings. Future studies could delve into educational context and infrastructure variations, which may differ between countries regarding technology access, internet connectivity, teaching practices, and student demographics. These variations can influence the effectiveness and implementation of digital tools like Google Classroom. Therefore, examining the similarities and differences in the educational contexts between Indonesia and other countries is essential.

Future studies could also look at socio-cultural Factors: Socio-cultural factors play a significant role in shaping educational practices. Norms, values, and attitudes toward technology, teaching, and learning can vary across countries. Therefore, findings related to user behaviour, acceptance, and attitudes toward Google Classroom in Indonesia may not be directly transferable to other countries due to differences in cultural and societal contexts.

Not only that, but comparative studies that directly compare Google Classroom usage in Indonesia with other countries can provide more insights into generalizability. These studies examine similarities and differences across countries and can help identify contextual factors that influence the applicability of findings.

5. Conclusions

This review examined 12 studies on using GC in teaching English in the second and foreign language context (ESL/EFL) during the COVID-19 pandemic. It was revealed that GC could help increase students' achievement in learning the English language, especially in terms of its four primary skills: reading, speaking, listening, and writing. There are also issues concerning using Google Classroom to learn English during the COVID-19 pandemic. However, these are mainly external technological issues that do not relate to the ability of the platform to help its users learn the English language during the COVID-19 pandemic.

Undeniably, Google Classroom was introduced before the arrival of the pandemic. In addition, the online learning platform is meant for more than just learning the English language. However, due to the online learning situation at schools being forced to close due to the pandemic, Google Classroom could become a catalyst in helping students to learn the English language remotely. Therefore, more investigations must be conducted on the effect of this platform on ESL/EFL learning to ensure that students will get the best out of Google Classroom. These investigations could consider different learning contexts' specific characteristics, resources, and challenges. Factors such as access to technology, internet connectivity, student demographics, and cultural considerations may influence the extent to which the benefits of Google Classroom can be fully realized in specific settings in teaching and learning English as a second or foreign language.

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