

Secondary ESL Teachers Use of Google Classroom during COVID-19 Pandemic

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ABSTRACT

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Education means of delivery has been transformed from in person to online learning because of COVID-19. This study assesses factors influencing the use of Google Classroom (GC) in four northern states located in Peninsula Malaysia for lessons during the COVID-19 pandemic among secondary ESL educators. A non-experimental design was employed. Primary data collected from a self-administered online questionnaire were analysed descriptively in a general survey of trends, involving 103 survey respondents (i.e., teachers). The findings of this study will allow Malaysian education stakeholders to understand the factors influencing the use of GC in schools to enable appropriate decisions about its use among teachers. It will also assist Malaysia's Ministry of Education in formulating policies relating to the use of GC and assist administrators of secondary schools in making decisions on the type of infrastructure and technical support needed. To evaluate the factors affecting GC used for instructions, a longitudinal study is recommended as such study will indicate whether longer periods of instructions result in better use of GC or not. This study extends significance in the field of instruction for teachers since it can be used to perform additional studies to increase the use of GC by teachers. To better evaluate the power of GC's instructions or other learning management systems in advancing virtual instruction prowess, a potential global expansion of this study should be performed.

Contribution/Originality: This study contributes to the existing literature and broaden our understanding of the characteristics that influence secondary ESL teachers' use of Google Classroom (GC) during COVID-19 pandemic. As a result, it is anticipated that this study will give a basic knowledge of the factors that influence the desire to use GC among secondary ESL teachers in Malaysia.

1. Introduction

The Covid-19 Pandemic has forever changed the way Malaysians live. There is a need to make changes and to define and conform to modern requirements. The same applies to the way curriculum is distributed. On March 18, 2020, schools in Malaysia were suspended, disrupting schooling for nearly 5 million students, in accordance with the first step of the nation's Movement Control Order (MCO). Many turned to Google Classroom, one of the world's largest Learning Management System (LMS), as it is claimed to be the most preferred LMS in Malaysia during the initial weeks of the MCO (Schaffhauser, 2020). It is an interactive LMS that provides a cost-effective, flexible learning experience for mobile and smartphone devices, supported by a simple application. It also encourages engagement and conversation among its participants, while offering video tutorials, messaging services, and the access and inclusion of resources from third parties such as YouTube (Elkington, 2020). The adoption rate of an LMS such as Google Classroom, however, is still considered very low. Educators tend to use more direct platforms, such as short message services (SMS) and social messaging apps such as WhatsApp, rather than using Google Classroom as a more structured and detailed medium to disseminate information, announcements, assignments, lectures, and materials (Adnan et al., 2020; Karim, Adnan, Tahir, Adam, Idris, & Ismail, 2020). Therefore, this research aims to evaluate variables influencing the use of Google Classroom (GC) in delivering learning among secondary English teachers in the northern states of Peninsula Malaysia, namely Perlis, Kedah, Penang, and Perak, during the Covid-19 pandemic. The outcomes of this study are projected to play a role in formulating approaches and recommendations to increase the implementation of educational technology in developing countries such as Malaysia (Adnan et al., 2019).

1.1. Problem Statement

Google Classroom (GC) was launched in 2014. It offers features that are intended to aid and enhance the delivery of online teaching and learning processes. According to Krauskopf, Zahn, and Hese (2012), the most prominent feature of GC is the 'Classwork' feature, which allows students to access and complete their homework. They can then send their homework to their teachers electronically. In addition, the learners will also receive their marks online. Fralinger and Owens (2009) furthermore indicated that this service provides various ways for educators to distribute their students' marks electronically and grants the students a permission to view their marks directly. This matter adds to higher chances for engagement between the educators and their students while enabling a quicker access for them. Besides, this tool is efficient because it grants students the permission to access learning materials or their classes via their own phones. On top of these prominent features, educators can create a new class in the nick of time, and a small code will be generated by the system, comprising letters and numbers to be published for the students to enrol into a GC class. In addition, Schmid et al. (2014) stated that the 'Assessment' feature grants permission for students and teachers to access the final submission date for the homework, tests, and other essential

learning matters. The details can then be directly imported to them via Google Mail and Google Calendar applications which can be easily downloaded into their phones (Schmid et al., 2014).

Apart from its useful features, multiple studies have recommended the use of GC for teaching and learning due to its various benefits (Ventayen et al., 2018). Among others, in a study by Olivier (2016), students admitted that GC has a positive influence on their learning and social networking activities. He then concluded that the higher GC usage allows students to accomplish their tasks, broaden their learning productivity, and increase their intention to utilize it. Apart from this, Jordan and Duckett (2018) mentioned that learners started to reap the benefits of the utilization of GC and its playful aspects and relate the features of GC by evolving positive intentions towards its utilization for pedagogical and other social learning reasons using their mobile devices as the medium. Jakkaew and Hemrungrote (2017) earlier indicated a similar finding, by noting that the eagerness and pleasure derived from GC's usage might influence the intentions of further usage in future.

Furthermore, a research done on the functions of GC as an LMS by Espinosa, Estira, and Ventayen (2017) showed that it is a constructive instrument to boost students' engagement. Not only that, adoption of GC also offered a better cost utilization, when it was used in combination with a peer tutoring mechanism for 6th grade students in Taiwan (Liu & Chuang, 2016). Next, in Bangladesh, students are also in favour of this e-learning tool as it promotes a better engagement level (Iftakhar, 2016). Heggart and Yoo (2018) moreover stated that GC has helped to increase students' participation and learning while improving their classroom dynamics. This is further supported by Sudarsana et al. (2019) who mentioned that GC as an online learning platform in Indonesia will upgrade educators' quality while enabling students to utilize technology effectively. Additionally, the results of the study by Alqahtania (2019) has also proven that GC's learning environment has a greater level of utilization than other environments for instance, Google Plus and Google Drive, as his study indicated a positive effect of GC on the scholastic achievement of the learners.

However, GC also has its own limitations. Alim, Linda, Gunawan, and Saad (2019) for instance highlighted issues in using GC such as a limited accessibility to smartphones, an unstable WiFi availability, and a lack of internet data among the students at the State Islamic Institute of Kendari, Indonesia. In addition, the occasional predominance of learners' external motivation in education, a small level of readiness for completing tasks in classroom and, an insufficient level of materials are some of the other limitations in using GC as stated by Bondarenko, Mantulenko, and Piliknyak (2019). They also mentioned technical supports (such as the need for out-of-class pedagogical support and a lack of guidance on the content aspect of GC pages) as a barrier in the utilization of GC. Likewise, Muthmainnah (2019) listed three main issues such as the students' motivation, their adversity quotient, and technical problems as the issues that could hamper a full GC adoption at the English Education Department of State Institute for Islamic Studies (IAIN) in Indonesia.

On the other hand, several studies have attempted to analyse the factors that have driven the use and adoption of GC among students and educators. One of the factors is the significance of performance expectancy in determining the use of GC as mentioned by Abdul Rabu, Hussin, and Bervell (2018). Apart from that, facilitating conditions in the use of GC was found to be the most important factor among students, followed by its

performance expectancy, if these students are to welcome this technology for academic purposes in their daily lives (Amadin, Obienu, & Osaseri, 2018).

Then, it is also suggested that the enforcement of any technology in the teaching and learning process, in this case GC, will not be victorious if there is no openness of its potential users to welcome it, as it will only drain valuable resources (Jakkaew & Hemrungrote, 2017). Thus, Al-Maroofof and Al Emran (2018) recommended educators to enquire more on the acceptance and behavioural intentions of GC usage in higher education. It is deemed as crucial to investigate any mediating relationships between habits, facilitating conditions, hedonic motivation, behavioural intention, and the usage of GC as suggested by (Kumar & Bervell, 2019). Besides, Alqahtania (2019) recommended for a comparative study to be conducted on the students and instructors' perceptions towards GC adoption. Such a study should focus on demographic variables (age, gender, type of programme, location and others) and the students and instructors' perceptions toward the adoption of GC to produce a framework for the best practices of GC adoption in educational institutions (Alqahtania, 2019).

The lack of research on GC specifically in Malaysia has prompted the need to investigate the use of the LMS among teachers in secondary schools. Likewise, having the intention to use technology for the right purpose is claimed as one of the major barriers for educators in adopting a virtual learning environment. Therefore, this study will focus on assessing the factors affecting the intention to use GC among secondary school teachers in Malaysia. To the best of the researchers' knowledge, none of the GC-related studies in Malaysia have focused on the secondary school teachers in Malaysia and the factors affecting the use of GC among them. Not only that, most other GC-related studies have been conducted in foreign contexts, in which their findings cannot be simply generalized to the Malaysia context. Additionally, as Malaysian schools have adopted 'Frog VLE' as a virtual learning platform before, many studies were carried out to understand its usage and its users' intention in various fields. However, with regards to the use of GC, only a handful of data can be found on the similar matters in Malaysia.

1.2. Research Objectives

- i. To examine the effects of technical support towards the use of Google Classroom among teachers during the Covid-19 pandemic.
- ii. To assess the ESL teachers' attitudes towards the use of Google Classroom during the Covid-19 pandemic.
- iii. To determine the significant factors affecting the use of Google Classroom among teachers during the Covid-19 pandemic.

1.3. Research Questions

- i. How does technical support affect the use of Google Classroom among teachers during the Covid-19 pandemic?
- ii. What are the ESL teachers' attitudes towards the use of Google Classroom during the Covid-19 pandemic?
- iii. What are the significant factors affecting the use of Google Classroom among teachers during the Covid-19 pandemic?

2. Literature Review

2.1. Factors in Adopting a Learning Management System among Educators

The adoption of an LMS by educators could be influenced by several variables. Such variables must be considered because teachers themselves are an integral driving factor in the successful execution of any instructional technology programme (Schaffhauser, 2020; Karim, Adnan, Tahir, Adam, Idris, & Ismail, 2020). To ensure the effective performance and continuous outcomes of these programmes in educational institutions, the variables influencing the use and acceptance of an LMS by instructors must also be clarified and uncovered (Coskuncay & Ozkan, 2013).

Alhardy and Lally (2017) observed that among others, educators have suggested that a lack of technological and administrative support may prevent them from incorporating ICT education solutions in their teaching (Adnan & Zamari, 2012). In addition, weak institutional incentives to use ICT have also been cited as another reason that could discourage these educators from implementing ICT in teaching and learning (Adnan & Zamari, 2012). Asamoah (2018) also revealed a related finding in the context of an LMS, where it was observed that institutional help and ICT policy had a positive and important impact on the real use of an LMS. He also proposed that universities should help the smooth running of an LMS by ensuring that electricity, internet access, sufficient tools, and technical personnel are readily available (p. xi).

Asiri, Mahmud, Bakar, and Ayub (2012) and Alghamdi and Bayaga (2016) who researched the use of an LMS and the attitudes of Saudi Arabian educators towards an LMS concluded that the attitudes of educators could prove to be an obstacle to the effective implementation of an LMS. They were found, as Alghamdi and Bayaga (2016) reported, to entertain their fear of using technology in general and an LMS too far in particular. While these educators have shown a positive outlook among their students towards the use of LMS because they have a better chance of planning and engaging with the materials before entering classes, these educators have also shown a negative attitude towards its use, where they were highly suspicious or cautious about using an LMS as a tool for online assessment. However, they also had high regards for their peers who embraced an LMS in a positive way faster than they did. Therefore, it is imperative that these educators "tune their attitude towards a wider use of an LMS in most of their teaching activities to tap all the benefits of an LMS for the benefit of students in their different institutions" (p. 2324). Moreover, one's attitude defines his or her intent, which forms the actual actions (of using an LMS) further (Fathema, Shannon, & Ross, 2015).

2.2. Factors that Affect the Use of Google Classroom among Educators

Interestingly, Iftakhar (2016) revealed that one of the key factors that led teachers in Bangladesh to use Google Classroom in their instructions was their career progression, where all teachers have to demonstrate their participation in virtual classrooms as part of the criteria for them to get a promotion. On the other hand, because of its simplicity in which classes can be held anytime and wherever, these teachers often used Google Classroom, especially if the classes had to be delayed due to national holidays or other academic obligations that the teachers had to commit to. This versatility has also allowed them to complete their teaching syllabus. In addition, the potential for interactive learning that Google Classroom provides is another consideration. For instance, students

can complete their group assignment and upload it to the website, and their achievement can be quickly measured. Teachers then can also easily explain the students' scores.

In the meantime, [Ballew \(2017\)](#) stressed that the willingness of teachers to use Google Classroom could be decided by three variables: their years of experience, the grade or level of students they were assigned to, and the subject or materials they were teaching. First, [Ballew \(2017\)](#) indicated that younger teachers were more likely to use Google Classroom in terms of interactions, as they were perceived to be more familiar with technology, especially for those who recently attended college and pre-service trainings. In comparison, teachers who have been least introduced to technological approaches and instructional innovations would naturally feel awkward in using Google Classroom in their teaching. Second, [Ballew \(2017\)](#) discovered that the higher the schooling level of the students who these teachers were assigned to, the more likely these teachers would embrace Google Classroom in their teaching, with respect to the schooling level of students these teachers were teaching. This means that Google Classroom will be used more by teachers who teach Upper Secondary students than their peers who teach Lower Secondary. Third, it was often understood that the subject matter or materials learned by these teachers could be a determining factor in evaluating whether they will use Google Classroom or not. For example, mathematics teachers showed more opposition towards the use of this tool because they assumed that Google Classroom did not actually lend itself to the teaching of mathematical calculations and sequencing of numbers. Nevertheless, teachers connected to English and Science fields seemed to be satisfied with the use of Google Classroom, as they thought that using this tool could improve the teaching of subjects in these fields.

3. Methodology

This study used the quantitative approach. Based on the aims of the analysis, the fieldwork was split into two separate inter-connected phases. The data was gathered for the first stage through the administration of an online questionnaire. The questionnaire was distributed to more than 100 secondary ESL teachers in the northern states of the Malaysian peninsula, namely Perlis, Kedah, Penang, and Perak. Elements from [Al Qudah \(2014\)](#), who performed a similar empirical analysis relating to factors influencing Moodle's acceptance among lecturers at Jordan University, were adapted in the questionnaire. To fit the milieu of this current research, the questionnaire was updated.

This research has used convenience sampling, which is one of the approaches of non-probability sampling to select respondents (or survey takers). The survey questionnaire was attached to an electronic cover letter to introduce the respondents to the research subject and to prevent any doubt or distrust that the respondents may have about the report. The cover letter also motivated and directed respondents to answer the online questionnaire while describing the intent and meaning of this report, as they were assured of the privacy and confidentiality of their answers. The research team also provided personal data in the form of e-mail addresses and mobile phone numbers to arrange for further explanation of the questionnaire as and when needed. A six-point Likert Scale was used to assess items in the online questionnaire, with 1 representing "strongly disagree" and 6 representing "strongly agree". Responses were divided into "negative" and "positive" sides, respectively.

The items are in the form of 'I-statements' and respondents are expected to show to what degree they agree or disagree with each statement issued ([Zikmund, Babin, Carr, &](#)

Griffin, 2013). A pilot test is often useful for checking the wording, sequencing, and structure of any questionnaire, while calculating the response rate and time taken to complete the questionnaire, testing the research process, and acquiring familiarity with respondents, according to Mohd Tahir and Tunku Mohtar (2016). The original instrument was initially allocated to 30 teachers in an urban region in the state of Perak because of these reasons. These teachers were not included in the actual study but provided invaluable feedback of the questionnaire as they were able to recognise wording problems as well as answering questions from the pilot test team about the significance and utility of the initial sample questionnaire. In the next chapter, the data obtained are discussed and analysed.

4. Findings and Discussions

An online survey questionnaire was used to collect useful data from secondary ESL teachers in the northern states of the Malaysian peninsula, namely Perlis, Kedah, Penang, and Perak, as stated in the previous section. A total of 103 teachers ($n = 103$) replied to and completed a 21-item survey questionnaire. Fifty-nine of the participants are female teachers and another forty-four are male teachers. About half of the teachers are Malays, while the rest are Chinese, Indians, and other ethnicities. All responding teachers have at least three years of teaching experience and all of them serve in a permanent position in government-funded secondary schools (or '*Sekolah Menengah Kebangsaan*'). Their main duty is to teach English as a second language in those schools.

The online questionnaire also attempted to explain three key fields related to the usage of Google Classroom, apart from gathering relevant demographic data: first, technological skills influencing the adoption of Google Classroom and other LMSs in teaching and learning; second, attitudes and behaviours displayed by teachers with regard to Google Classroom and other LMSs; third, wider factors affecting the use of Google Classroom and other LMSs during this pandemic period in the Malaysian context.

4.1. Technical Knowledge that Affects the Adoption of Google Classroom and Other LMSs in Teaching and Learning

The result for item 1 in the online questionnaire: '*I have ample technical skills to use Google Classroom and other LMSs*' is presented in Table 1 below (the data are presented in the form of ordinal numbers and percentages).

Table 1: Survey Item Number
"I have enough technical knowledge to use Google Classroom and other LMSs"

Strongly disagree	Disagree	Slightly disagree	Slightly agree	Agree	Strongly agree
5 4.85%	26 25.24%	18 17.48%	17 16.50%	29 28.16%	8 7.77%

The information in Table 1 indicates that the respondents in the study are equally split between those who think they have the technological skills to use learning management systems such as Google Classroom and those who believe that they do not possess such skills. In terms of planning for a world where technology will be more prevalent in the teaching of English and other subjects in humanities and social sciences fields, this should be a cause for concern. The mean for item 1 is $M=3.612$.

Table 2 illustrates the data in relation to survey item 3: *'I am able to quickly learn about using Google Classroom and other LMSs'.*

Table 2: Survey Item Number 3
"I am able to quickly learn about using Google Classroom and other LMSs"

Strongly disagree	Disagree	Slightly disagree	Slightly agree	Agree	Strongly agree
5 4.85%	20 19.42%	19 18.45%	15 14.56%	34 33.01%	10 9.71%

Again, while there are Malaysian teachers who are confident in gaining new skills in relation to the use of learning management systems such as Google Classroom in particular, it can be argued that there are still local educators who are not confident with their ability to learn about new technologies that can assist them in the teaching and learning process. This is obviously a cause for alarm for an upper middle-income country such as Malaysia that in the truest sense of the world is successfully striving to become a fully developed economy. $M=3.524$ is the average for this item.

4.2. Attitudes and Behaviours Shown by Teachers with Reference to Google Classroom and Other LMSs

The data in **Table 3** reveal that Malaysian English language teachers mainly have optimistic attitudes towards English teaching and studying with the assistance of learning management systems such as Google Classroom. Nevertheless, the statistics should also be higher to show the strong economic condition of the nation and the intense emphasis placed by the Ministry of Education on technology-assisted learning in the Malaysian setting.

Table 3: Survey Item Number 8
"I feel positively about using Google Classroom and other LMSs for ELT"

Strongly disagree	Disagree	Slightly disagree	Slightly agree	Agree	Strongly agree
4 3.88%	17 16.50%	17 16.50%	12 11.65%	40 38.83%	13 12.62%

In terms of using Google Classroom and other Learning Management Systems for the distribution of instructional materials to the students, more than 60% of the respondents appear to feel 'positive' about this. While this number is not small by any means, this again does not reflect the educational policies related to secondary school education currently in place in Malaysia, which have placed a strong focus on providing students with the 21st century learning experiences. $M=4.029$ is the average for this survey item.

4.3. Wider Factors that Influence the Use of Google Classroom and Other LMSs during the Pandemic Period (in the Malaysian Context)

Malaysia has been severely affected by the pandemic, as do other countries around the world. At the same time, many Malaysian teachers have taken encouraging measures to ensure that their technological expertise is strengthened in line with the attitudes they display towards learning management systems such as Google Classroom for English teaching and learning. Nevertheless, in terms of the application of technical instruments, there are still larger considerations to be addressed, as [Table 4](#) illustrates.

Table 4: Survey Item Number 15
“I don’t mind using Google Classroom, but the problem is my Internet connection”

Strongly disagree	Disagree	Slightly disagree	Slightly agree	Agree	Strongly agree
0	4	2	21	45	31
-	3.88%	1.94%	20.39%	43.69%	30.10%

[Table 4](#) shows that the issue of weak or poor Internet connectivity makes it very difficult for English teachers in Malaysia to consider the broader use of Google Classroom or any other learning management systems for their students or in other matters that require a stable Internet connection. When 94% of Malaysian teachers say that they have an Internet access issues, this means that something is very wrong with the delivery of information and communication technology in this rapidly developing country, which will make it difficult for innovations of the 21st century to be commonly used during this pandemic era and in the years ahead.

A similar sentiment is somewhat represented in [Table 5](#), which demonstrates the hardware issues that are faced by English teachers in Malaysia:

Table 5: Survey Item Number 17
“I can use Google Classroom because I have the right equipment (e.g., PCs and modems)”

Strongly disagree	Disagree	Slightly disagree	Slightly agree	Agree	Strongly agree
0	14	11	14	41	23
-	13.59%	10.68%	13.59%	39.81%	22.33%

Approximately one in four Malaysian English teachers do not have the right equipment to handle teaching and learning processes that use advanced technology such as Google Classroom and other learning management systems, as [Table 5](#) demonstrates. $M=4.942$ and $M=4.466$ are the means for survey item numbers 17 and 18 respectively. Again, while this is not a significant amount, in the coming years, it does not fit with the ambition of the Malaysian government to bring the Malaysian education system into the 21st century.

5. Conclusion and Recommendation

A better part of education has been fundamentally altered by this pandemic. This could be a much-needed push to the education sphere which has been traditionally conservative and resistant to reforms. The pandemic has pushed schools, universities,

higher education agencies, and online training providers to source for the best technology to ensure a continuous delivery of learning and knowledge. A software or an application has transformed a laptop screen into a virtual classroom where, in a fully interactive online learning atmosphere, students and teachers can see and interact with each other. Students are also now just a finger-click away from the virtual treasure trove of knowledge known as 'Google'.

At the same time, as seen in the previous chapters, there are lingering issues that need to be managed and solved as soon as possible. If these issues are not being addressed well, the Malaysian government's ambition to carry Malaysian education to the next level will never become a reality. What is more, Malaysian students would not profit from dramatic improvements in teaching and learning technologies that have swept the world at large.

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Conflict of Interests

The authors declare no conflict of interest in this study.

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