ORIGINAL ARTICLE

GOOGLE CLASSROOM USE DURING COVID-19 PANDEMIC BY SECONDARY ESL TEACHERS

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ABSTRACT – Education has transformed its means of delivery from face-to-face to online lessons because of COVID-19. This study assesses factors impacting 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 for this research was employed. Primary data collected from a self-administered online survey questionnaire are 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 in order to make 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 more research to increase the use of GC by teachers. To better evaluate the power of GC instructions or other virtual instruction platforms in advancing virtual instruction prowess, a potential global expansion of this study should be performed.

INTRODUCTION

The Covid-19 Pandemic has changed the way Malaysians live forever from every stage of life. There is a need to make changes and to define and conform to modern requirements. The way curriculum is distributed requires this. 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). Google Classroom is one of the world's largest LMS, with Schaffhauser (2020) announcing during the initial weeks of the Malaysian MCO that it is the number one education programme. 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, video tutorials, messaging to students, and the access and inclusion of resources from third parties such as YouTube (Elkington, 2020). The implementation of an LMS such as Google Classroom, however, is still considered very low. Educators tend to use more direct contact 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 forum to disseminate information, announcements, assignments, lectures, and materials. (Adnan, Ya Shak, Karim, Tahir, & Shah, 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, Karim, Tahir, Mustafa Kamal, & Yusof, 2019).

RESEARCH OBJECTIVES AND QUESTIONS

Research Objectives

1. To examine the effects of technical support towards the use of Google Classroom among teachers during Covid-19 pandemic.
2. To assess the ESL teachers' attitudes towards the use of Google Classroom during Covid-19 pandemic.

3. To determine the significant factors affecting the use of Google Classroom among teachers during Covid-19 pandemic.

Research Questions

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

LITERATURE REVIEW

Factors in Adopting a Learning Management System Among Educators

The adoption of an LMS by educators could be influenced by several variables. Such factors 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). In order to ensure the effective performance and continuous outcomes of these programmes in higher education institutions, the variables influencing the use and acceptance of LMS by instructors must also be clarified and uncovered (Coskuncay & Ozkan, 2013).

Alhardy and Lally (2017) observed that these educators 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 (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 ensure that the LMS is made easy to use by ensuring that electricity, internet access, sufficient tools and technical personnel are still available (p. xi).

Asiri, Mahmud, Bakar, and Ayub (2012) and Alghamdi and Bayaga (2016), who also researched the use and attitudes of Saudi Arabian educators towards 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) said, 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 caution about using an LMS as a tool for online assessment. They also regarded their peers who embraced LMS in a positive way faster than they did. Therefore, it is imperative that these educators "tune their attitude towards wider use of LMS in most of their teaching activities to tap all the benefits of 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 (using an LMS) further (Fathema, Shannon, & Ross, 2015).

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 as part of the criteria to be encouraged in virtual classrooms. On the other hand, because of its simplicity in which classes can be held anytime and wherever, these teachers often used the use of Google Classroom, especially if the classes had to be delayed due to national holidays or other academic obligations that the teachers wanted to commit to. This versatility has also allowed them to complete the syllabus given. In addition, the potential for interactive learning that Google Classroom provides is another consideration. For instance, students can apply their group assignment and upload it to the website, and their success can be quickly measured, and teachers can logically explain the score.

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 material they were teaching. First, Ballew 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 recently attending college and pre-service training. In comparison, teachers who have been least introduced to the approach to technology and instructional innovations would naturally feel awkward using Google Classroom in their teaching. Second, Ballew (2017) discovered that the higher the grade of students to whom these teachers were assigned, the more likely these teachers would embrace Google Classroom in their teaching, with respect to the grade of students these teachers were teaching. This means the 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 material learned by these teachers could be a determining factor in evaluating whether or not they would use Google Classroom. For example, mathematics teachers showed more opposition to using this tool because they assumed that Google Classroom did not actually lend itself to teaching mathematical calculations and sequencing of numbers. Nevertheless, teachers connected to English and Science seemed to be satisfied with the use of Google Classroom, as they thought that using this tool could improve the teaching of these subjects.

RESEARCH METHODOLOGY

This study used the research nature of the survey requiring a quantitative approach (Al-Adwan & Smedley, 2013). 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 by the administration of the online questionnaire. In the northern states of the Malaysian peninsula, namely Perlis, Kedah, Penang and Perak, the distribution of the questionnaire included 100+ secondary ESL teachers. Al Qudah (2014), who performed a very similar empirical analysis relating to factors influencing Moodle's acceptance among lecturers at Jordan University, adapted the elements in the questionnaires. To fit the milieu of this current research, the questionnaires were updated. This paper would not address the second process concerning qualitative data collecting.

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 also to prevent any doubts or distrust that the respondents may have about the report. The cover letter also motivated and directed respondents to answer the online questionnaire in addition to describing the intent and meaning of this report, as they were assured in terms of their privacy and confidentiality in the part 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"; answers are divided into "negative" and "positive" sides, respectively.

The goods 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, Carr, & Griffin, 2013). A pilot test is often useful for checking the wording, sequencing and structure of any questionnaire, 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 gave invaluable feedback in terms of the questionnaire as they were able to recognise wording problems as well as answer questions from the test team about the significance and utility of the initial sample questionnaire. In the next segment, the data obtained is discussed and analysed.

DATA PRESENTATION AND ANALYSIS

An online survey questionnaire was used to collect useful and 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 a 21-item survey questionnaire and completed it. Fifty-nine of the participants were female teachers and another 44 were male teachers. About half of the teachers are ethnic Malaysians, 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 permanent contract positions in the four states in government-funded secondary schools (or *'Sekolah Menengah Kebangsaan'*), concentrating mainly on teaching English as a Second Language.

The online questionnaire also attempted to explain three key fields related to the usage of Google Classroom, other than 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 global pandemic period but limited to the Malaysian context.

Technical Knowledge that Impact upon the Adoption of Google Classroom and Other LMSs in Teaching and Learning

The results for item number 1 in the online survey are seen in Table 1: 'I have ample technical skills to use Google Classroom and other LMSs' (data are presented in this paper 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	26	18	17	29	8
4.85%	25.24%	17.48%	16.50%	28.16%	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 programmes such as Google Classroom and those who consider they do not have that knowledge. In terms of planning for a world where technology will be more prevalent in teaching English and other subjects in the humanities and social sciences, this should be a cause for concern. The mean for the survey item number one is M=3.612. Table 2 illustrates the data in relation to survey item number 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	20	19	15	34	10
4.85%	19.42%	18.45%	14.56%	33.01%	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 that they can learn about new technical 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 word, is successfully striving to become a fully developed economy. M=3.524 is the average for this survey item.

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

The data in Table 3 reveals that Malaysian English language teachers usually 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 learning technology 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	17	17	12	40	13
3.88%	16.50%	16.50%	11.65%	38.83%	12.62%

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

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

Malaysia has suffered because of the viral 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 demonstrates 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, or indeed in any other matter. When 94% of Malaysian teachers say that they have an Internet access question, this means that something is very wrong with the information and communication technology requirements 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. This same feeling is somewhat represented in Table 5, which demonstrates the hardware that teachers of Malaysian English have to help them educate students through technology.

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 using updated technology such as Google Classroom and other Learning Management Systems, Table 5 demonstrates. M=4.942 and M=4.466 are the norm for survey item numbers 17 and 18. Again, while this is not a big amount, in the coming years, it does not fit with the ambitions of the Malaysian government that aims to bring the Malaysian education system into the 21st century.

CONCLUSION

Training for the better has fundamentally altered this pandemic. Throughout time, the education sphere has been conservative and resistant to reforms. However, to ensure that effective learning persists through technology, the pandemic has pushed schools, universities, higher education agencies and online training providers. Software transforms a laptop screen into a classroom where, in a fully interactive online learning atmosphere, students and teachers can see each other and challenge each other. Therefore, students are now just a finger-click away from the vast knowledge base of Google.

Around the same time, as seen in the previous segment, there are teething problems that need to be managed and solved as soon as possible. If not, then the Malaysian government's ambitions to carry Malaysian education to the next level will never become true. What is more, Malaysian students would not profit from dramatic improvements in the teaching and learning technologies that have swept the world's wealthier nations.

ACKNOWLEDGEMENT

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