Behind-the-Scenes: Challenges to Integrate Google Classroom in Teaching and Learning

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Abstract: Due to the outbreak of the COVID-19 pandemic, the Malaysian government has announced Movement Control Order (MCO) for the safety of the nation. Based on the latest data from UNESCO (2020), this measure has impacted over 7.9 million of learners in Malaysia. Subsequently, teachers in Malaysia are facing challenges to continue providing quality education to students due to the pandemic. Google Classroom was introduced after the termination of Frog VLE in Malaysia. However, the researcher found that implementing Google Classroom via online teaching and learning is ineffective compared to the face-to-face method. Hence, this study aimed to explore why Malaysian teachers face challenges in teaching and learning. The study employed a qualitative study using a semi-structured interview. The participants of this study were five teachers from different secondary schools in Selangor, Malaysia. Purposive sampling was adopted in this study with two criteria. The first criterion is that participants need to have experience in using Google Classroom in teaching and learning regardless of any subjects' while the second is that participants need at least five years of teaching experience in secondary school. As a result, a total of four themes were categorised. This research finding would offer insights to educational stakeholders and school administrators to improve the integration of Google Classroom in teaching and learning. Recommendations were generalisability and suggestions to the future researcher to explore ways to overcome the challenges faced by secondary school teachers.

Keywords: Challenges, Google classroom, challenges, teaching and learning

1. Introduction

In response to the outbreak of COVID-19 pandemic, the Malaysian government has announced Movement Control Order (MCO) (Prime Minister Office of Malaysia, 2020) for the safety of the nation. The pandemic has cost the country in every way and not forgetting the education system of the country. Schools have been closed down to ensure the safety of the students and the teachers. The closures of educational institutions have affected over 1.5 billion or approximately 91% of the learner population worldwide (UNESCO, 2020). Based on the latest data from UNESCO (2020), this measure has impacted over 7.9 million of learners in Malaysia. Subsequently, teachers in Malaysia are facing challenges to continue providing quality education to students due to the pandemic. The government has encouraged teachers to use Google Classroom to cope with the current situation, as it was officially announced as the main online teaching and learning platform after the termination of Frog VLE (Ministry of Education, 2019). However, we found that the implementation of Google Classroom via online teaching and learning is not that effective compared to the face-to-face method. Just accessing Google Classroom itself is a problem: Users are bombarded with the challenge of no strong Internet connection and limited WIFI usage (Nur et al., 2019), and no definite strategies are available yet for implementing and using Google Classroom (Hapini et al., 2019), high rates of plagiarism in contents created and uploaded (Bhat et al., 2018), and no real, actual hands-on activities can be made available during lessons (Tamin & Mohamad, 2020). Hence, the presence of these problems must be addressed

as they may affect the classroom teaching and learning process. As Tamin and Mohamad (2020) mentioned, Google Classroom integration in teaching and learning as a medium of learning needs to be improved. Thus, there is a need to answer the research question of why Malaysian teachers face challenges to integrate Google Classroom into teaching and learning.

2. Literature Review

2.1 Google Classroom

Google Classroom is one of the Google Apps for Education (GAFE) used by most teachers and students in education because it is user-friendly (Azhar and Nayab, 2018). This application can be downloaded for free. Besides, other Google applications such as Gmail, Google Drive, and many more can also be integrated into Google Classroom (Noornadiah et al., 2022). According to Jeya and Brandforrd (2019), this application provides a platform for communicating with students and teachers to post announcements and evaluate students' assignments. First, teachers need to create a Google Classroom for any subjects comprising all students to be in the class. Then, teachers can post the announcements in the classroom, while students will get the notifications on their emails or any other devices that they installed Google Classroom (Bhat et al., 2018).

Besides manually inviting students to Google Classroom, teachers can send the link to students to join by themselves (Zakaria et al., 2021). This could help reduce teachers' workload, especially when they are many students. In terms of communication, teachers or students can communicate in the announcement's comment box. Evaluating students' assignments is also one of the strengths of Google Classroom (Kumar et al., 2020). When students tune in their assignments in Google Classroom, teachers can mark and provide feedback instantly to the students. Therefore, using Google Classroom is timesaving and eco-friendly (Zakaria et al., 2021). This is because teachers and students are doing their work online, and no paper is required throughout the process.

2.2 Challenges to Integrate Google Classroom in Teaching and Learning

There are many challenges of Google Classroom in teaching and learning, such as lack of ICT readiness among the teachers. In this context, researchers want to discuss why Malaysian teachers face challenges to integrate Google Classroom in teaching and learning. According to Wan et al. (2020), teachers rarely implement online teaching and learning in Malaysia. Hence, using Google Classroom is not practised in the classroom setting. This can be supported by Zakaria et al. (2021), who indicated that teachers and students find it difficult to use Google Classroom, especially at the initial level. In contrast, Tamin and Mohamad (2020) showed that students might find it easier to do assignments in Google Classroom because they can browse the information from other web-based platforms.

Besides, emergency remote teaching has been implemented due to the COVID-19 pandemic. The sudden switch from face-to-face teaching to online learning platforms leaves teachers with no clue about the next step. Therefore, many teachers were not prepared for online teaching and learning. Meanwhile, the research paper by Arumugam et al. (2021) indicated that teachers felt unenthusiastic in online teaching and learning compared to the face-to-face teaching method. This is because teachers encountered difficulties in preparing online materials for Google Classroom. According to Izhar et al. (2021), teachers found it hard to convert the hardcopy materials to softcopies and share them on online platforms due to the lack of ICT knowledge and skills. Teachers who lack of ICT knowledge and skills will need a longer time to prepare the materials. Hence, some teachers' normal lives were disrupted during online teaching due to long working hours (Arumugam et al., 2021).

Several studies conducted in Malaysia showed that teachers at all levels had increased workload during the pandemic (Kamal et al., 2020; Zakaria et al., 2021). According to Kamal et al. (2020), live classroom requires teachers to put a lot of effort into preparing their online lessons. Zakaria et al. (2021) indicated that teachers had to allocate much time to familiarise themselves with the features of Google Classroom. Besides, teachers also need to spend more time guiding the students to discuss the questions and answers with them (Zakaria et al., 2021). For example, teachers will use WhatsApp and Telegram to contact the students or provide feedback to students. Besides, learners also have trouble assessing Google Classroom at the initial stage (Zakaria et al., 2020). Hence,

teachers and students need to be well prepared and familiarise themselves with the features of Google Classroom, and other Google applications such as Google Slides for teaching purposes (Lee et al., 2021; Zakaria et al., 2020).

Meanwhile, teachers also face challenges integrating Google Classroom in teaching and learning due to the lack of experience in managing the students via online. According to Yeap et al. (2021), online teaching requires certain skills, such as the requirements and materials that are not usually found at home. For example, teachers need to have a proper camera, scanner, and headphones. According to Yusoff and Marzaini (2021), students' participation is one of the barriers to integrate Google Classroom into teaching and learning. For example, students rarely complete the homework teachers send through Google Classroom. This is because students have negative attitudes towards using Google Classroom (Shelvam et al., 2021). This can be explained using Technology Acceptance Model (TAM) (Davis, 1989). According to the TAM acceptance model, there are two main variables: perceived usefulness and ease of use. Perceived usefulness is defined as "an individual who believes in the particular system will help to enhance the work efficiency in job performance". When individuals have positive attitudes toward using the system, they will have the intention to use.

3. Research Methods

The study employed a qualitative study using a semi-structured interview. A semi-structured interview was conducted because the collected data was mainly based on the respondents' personal experiences, perceptions, attitudes, and beliefs about the related topic (DeJonckheere & Vaughn, 2019). Purposive sampling was used to recruit the samples from this study. Besides, researchers also set a few criteria to recruit participants to participate in this study to ensure the data collected suits the research question. The first criterion is that participants need to have experience in using Google Classroom in teaching and learning regardless of any subjects' while the second is that participants need at least five years of teaching experience in secondary school.

Before data collection, researchers had been granted permission from the Ministry of Education Malaysia, state officers of education, and the researchers' affiliation Scientific and Ethical Review Committee to conduct research. The purpose of the study was explained in the consent forms and formal letters for the principals and the secondary school teachers involved. The Personal Data Protection Act 2010 form was also given to participants to keep their information confidential. Consequently, the respondents of this study were five teachers from Selangor.

Researchers constructed interview questions, and probes were used throughout the semistructured interview to elicit further in-depth information (Majid et al., 2017). There were four main interview questions:
- When did you start using Google Classroom for teaching?
- How do you find it when you first used the Google Classroom?
- Do you find it challenging while using Google Classroom in teaching and learning? (If yes, why? If no, why?)
- Why do you think integrating Google Classroom in teaching and learning is a challenge for you?

The researchers followed the steps suggested by Leavy (2017) to analyse the data: (1) Data preparation and eneralizati, (2) initial immersion, (3) coding, (4) eneralizati and theming, and (5) interpretation. Firstly, the researchers transcribed the data according to the interview recordings. Next, transcripts were read and reread to develop the initial ideas of the data to identify the potential themes. Thirdly, researchers had to segment the text from the transcript into categories using the terms. The coding process was done by using computer-assisted software (ATLAS.ti). The codes were then eneralizat, and themes were emerged from the data. Finally, the data were interpreted and discussed as the findings of the study. The interviews were audio recorded after receiving participants' consent. Field notes were taken for all interview sessions. A token of appreciation was also given to each respondent after the interview.

4. Findings

4.1 Demographic Information

The demographic information collected from the respondents includes gender, age groups, years of teaching experience and whether they had attended ICT training before.

Table 1. *Gender of respondents*

Gender	Frequency (*f*)	Percent (%)
Male	1	20.0
Female	4	80.0
Total	5	100.0

     Table 1 shows the gender of respondents in the study, one (20.0%) male and four (80.0%) females. Therefore, the majority that participated in the interview were females.

Table 2. *Age groups of respondents*

Age group	Frequency (*f*)	Percent (%)
25 – 35	3	60.0
36 – 45	1	20.0
46 – 55	0	0.0
56 and above	1	20.0
Total	5	100.0

     Table 2 shows that three (60.0%) of the respondents were between 25 to 35 years old, one (20.0%) was between 36 to 45 years old, and one (20.0%) was above 56 years old. Therefore, most respondents that participated in this study were between 25 to 35 years old.

Table 3. *Years of teaching experience in secondary school*

¿ experience (years)	Frequency (*f*)	Percent (%)
1 – 5	1	20.0
6 – 10	1	20.0
11 -15	2	40.0
16 years and above	1	20.0
Total	5	100.0

     Table 3 shows that there is only one (20.0%) respondent respectively between 1 to 5 years, 6 to 10 years, and above 16 years of working experience. Two (40%) of the respondents have working experience of 11 to 15 years in secondary school.

Table 4. *Number of respondents who attended training*

Attended ICT training	Frequency (*f*)	Percent (%)
Yes	4	80.0
No	1	20.0
Total	5	100.0

     Table 4 shows four (80.0%) respondents attended ICT training before, while one (20.0%) of the respondents did not attend any ICT training before. Hence, the majority of the respondents have experience attending ICT training before the implementation of Google Classroom.

4.2 Why Malaysian Teachers Face Challenges to Integrate Google Classroom into Teaching and Learning

The objective is to explore why Malaysian teachers face challenges to integrate Google Classroom into teaching and learning. Four themes and six categories emerged from the interview sessions conducted. The themes and categories are illustrated in Table 5.

Table 5. *Themes and categories*

Themes	Categories
Students' attitude problems	• Students do not submit their homework • Less participation of students
Insufficient ICT training	• Lack of ICT awareness and training
Poor network connection	• Problem connecting to Google Classroom
Increase in workload	• Prepare online materials • Spend time guiding students

4.2.1 Students' attitude problems

Students do not submit their homework
During the interview, all respondents indicated that the students were not submitting their homework, especially during online lessons:

> … students hardly tune in their homework or assignment. They give a lot of excuses and I really do not have so much time to go deeper to study, whether they are truly facing technical problems. (R4)

> … when students are not submitting their work, you have to try the offline method for them to submit their work. Then you try to give them work and ask them to just write them down and send it back to the school, and you collect it every month or in two weeks or something. Most of them did not send it to school. (R5)

Less participation of students
Some respondents also mentioned students are not participating in online learning, and some of them did not bother to check Google Classroom as well:

> … At the same time, they are very good at doing things that we don't do as adults… when you ask them to use their interest in education, for example, find the information about your favourite sport or singer … They won't be able to do it. (R5)

4.2.2 Insufficient ICT Training

Lack of ICT awareness and training
All respondents attended ICT training before; however, the training only covered the basics of ICT knowledge. Besides, the school also lacks ICT awareness, which causes the teachers to face challenges integrating Google Classroom in teaching. Among their views were:

> … the computer teachers and school administrators are not really motivated and not aware of the importance of being proficient in technology with education. (R5)

> … the school has only prepared us with 2 hours of brief in-house training. Everything was just shared at a very fast speed. It is quite hard for us. We can't understand at all sometimes. (R2).

Respondents explained their experiences in using Google Classroom. They find this Google Classroom challenging and confusing to use in the lesson. This is because they are unprepared for the sudden switch from face-to-face teaching to online teaching. The respondents also further explained that there were no clear instructions given on using the functions or features available in Google Classroom.

5

This points out that the lack of ICT awareness and training caused the teachers to face challenges integrating Google Classroom in teaching.

4.2.3 Poor Network Connection

Problem connecting to Google Classroom
During the interviews, most respondents mentioned that connectivity is one of the reasons why Google Classroom is challenging for them.

> … even we teachers have the problem with internet accessibility. And a few of them doesn't even have an Internet connection and doesn't even have a modern mobile phone. I mean that the old mobile phones are not really suitable for them to browse Google Classroom. (R5)

However, respondent 4 added the viewpoint from the student's perspective:

> … I feel quite lucky because I have changed my WIFI. I am using unifi, and the connection is very good and there is no laggy problem for me. However, I found out from other teachers that many students couldn't access their WIFI and couldn't download their homework. Because some of the families are sharing devices, therefore there is insufficient data for them to upload homework in Google Classroom. (R4)

Therefore, the poor network connection is one of the reasons why teachers feel it is challenging to integrate Google Classroom into teaching and learning.

4.2.4 Increase in Workload

Prepare online materials
During the interview, almost all teachers mentioned the increase of workload because they need to spend time preparing online materials for the subjects they are teaching:

> I think Google Classroom is challenging for me because this is a new system and I am not trained in this before, except Frog VL… Malaysia has not been using online teaching before, and there was very less material and no eBooks at that time. … So, I have to learn from Youtube by myself. (R4)

> I spent a lot of time preparing online resources. For example, I need to cover the chapter about Group 17 elements…For this chapter, I used for almost 3 to 4 days to finish my PowerPoint and find videos for the experiments for students to see. I also need to include some notes for the teachers like "play the video from 1 minute to 2 minutes". Therefore, a lot of time was required to prepare the materials. (R3)

Spend time in guiding students
Another reason why Malaysian teachers face challenges when integrating Google Classroom into their teaching and learning is because they need to spend time guiding students, especially teaching students how to use Google Classroom. According to the respondents' views, most students do not know how to use the features of Google Classroom. During the interviews, the respondents commented:

> … students are also not used to it. I need to get used to Google Classroom itself, and at the same time, I need to teach them. Because when the students are using it, I also need to guide them and need more time to teach as well. That's why it is quite challenging for me. (R1)

To summarise, respondent 1 indicated that spending time guiding students is also one of the reasons why she thinks Google Classroom is challenging for her. This is because teachers must finish the syllabus in time, and guiding students through demonstrating on the spot will take a lot of time. Therefore, these are why Google Classroom is challenging for teachers in teaching and learning.

5. Discussion and Conclusion

5.1 Discussion

Results of the analysis indicate that the respondents faced several challenges while integrating Google Classroom in teaching and learning. The researchers identified four overall themes that explore why Malaysian teachers face challenges to integrate Google Classroom into teaching and learning, namely: students' attitude problems, insufficient ICT training, poor network connection and increase in workload. The results are almost in line with the research paper by Zakaria et al. (2021), as presented in the literature review. Four themes were found in the challenges of Google Classroom: student engagement, effort expectancy, attitude and facilitating condition.

Google Classroom is an effective communication platform, and there are several benefits and challenges simultaneously. Based on the findings, students give excuses for not attending and submitting their homework. Teachers face challenges to integrate Google Classroom into teaching mainly because students have negative attitudes toward using Google Classroom. This is aligned with the TAM model (Davis, 1989); when students have negative attitudes towards using Google Classroom, it will affect their intention to use it. Even though students are experts in using other technology platforms, such as taking videos and uploading to YouTube, they have less concern about submitting homework or browsing information online.

Besides, some secondary school teachers find Google Classroom challenging because of insufficient ICT training and poor network connection. According to Arumugam et al. (2021), Google Classroom only works where there is internet accessibility. Therefore, some of the teachers are not able to access the webpage due to poor network connection or due to network coverage in their housing area. Based on the findings, teachers also indicated sufficient ICT training is needed for teachers and students. According to Zakaria et al. (2020), the school management team should provide training for teachers and students to eneralizat themselves with the features of Google Classroom.

An increase in workload is also one of the reasons why teachers indicated Google Classroom is challenging for them in teaching and learning. Teachers must prepare materials and exercises for the lessons during online teaching. According to Izhar et al. (2021), teachers find it challenging to convert hard copies to soft copies and upload them to online platforms. Therefore, the lack of technical knowledge and skills caused an increased workload for teachers. In line with a previous study by Zakaria et al. (2021), the current study findings indicate that teachers also spent time guiding students and educating students to be familiar with the Google Classroom system.

5.2 Limitations, Recommendations & Conclusion

The present study's findings would give the educational stakeholders a new insight into Malaysian teachers' perspectives of Google Classroom. When the administrators acknowledged the difficulties experienced by the teachers while integrating Google Classroom, they could work together to overcome the challenges.

The results of this study are only limited to the Selangor area in Malaysia. This limitation has restricted the eneralization of the findings to represent entire Malaysia. Thus, future studies can consider enlarging the sample size by including other states in Malaysia. Besides, this study is limited to why teachers face challenges integrating Google Classroom into teaching and learning. Thus, future researchers could expand this study by exploring how to improve the integration of Google Classroom in teaching and learning by Malaysian teachers to improve the educational system.

In this study, we discovered that the respondents encountered various challenges from themselves and the students. Based on the research findings, four themes emerged in response to the research question: students' attitude problems, insufficient ICT training, poor network connection and an increase in workload. Some of the recommendations can be considered for future researchers to explore the topic of Google Classroom further.

Acknowledgements

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