# An Analysis of Practicality for Google Classroom Implementation in Kelantan State Secondary Schools

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**ABSTRACT**

E-learning, a contemporary technological innovation, is extensively employed in contemporary educational institutions and is recognized by educators. The utilization of information and communication technology (ICT) as an instructional mechanism constitutes an additional pioneering teaching and learning (T&L) approach. The credibility of technology must be ensured in order to effectively augment the current instructional framework. The utilization of Google Classroom as an instructional platform to supplant the conventional physical approach to learning has the potential to establish an educational setting aligned with the demands of the 21st century. The accelerated growth of Google Classroom can be attributed to its distinctive attributes, each of which contributes independently to its efficacy. This research study employs a quantitative research approach that employs a survey methodology utilizing a questionnaire to assist researchers in gathering more precise and high-quality data and information. Issues and Challenges of Using Google Classroom in PdPR are inadequacy of support and exposure, the preparedness of teachers, the preparedness of students, access to the Internet, and the availability of device tools. Several proposed resolutions can be considered in addressing this issue. These include augmenting preparedness through the provision of comprehensive teacher education, fostering cognizance among parents and guardians, fostering cooperative efforts between governmental and private entities, as well as enhancing the capabilities and infrastructure of information and communication technology (ICT) facilities. It is of utmost importance to tackle additional obstacles that emerge in the utilization of this platform in order to alter the instructional regimen. Collaboration among stakeholders in the industry is imperative to guarantee that elementary school pupils are provided with technological resources and receive assistance for remote education.

Keywords: Google Classroom , Teaching, Learning, Online ,Secondary School

## Introduction

Malaysia's educational system has been modified in response to the Industrial Revolution 4.0 change in order to preserve its status as a world leader in the field of education (Al-Rahmi et al, 2019). Information and communications technology (ICT) development, which acts as the main platform, is one of the shifts that have taken place. ICT allows for the sparking of a more meaningful Teaching and Learning (T &L) process. E-learning is a modern technology that is widely used in schools today and is familiar to educators. The use of ICT as a teaching tool is another cutting-edge T&L strategy. Technology needs to be a trustworthy instrument for the existing instructional process, according to Chamidah et al (2020) to make it simple for people to understand and master knowledge. The expansion of educational technology has facilitated a necessity to provide support for digital learning and simultaneously introduce the notion of a digital classroom. Present-day learners are inclined towards exploring the realm of education through technology (Subandi et al. 2018), and this has prompted educational institutions to revolutionize their teaching methodologies by incorporating digital learning. Consequently, institutions require a robust system that is at the forefront of technological advancement, cost-effective (Al-Maroof and Al-Emran 2018), and adaptable (Bhat et al. 2018).

The LMS, which is occasionally referred to as Virtual Learning Environments (VLE) or Course Management Systems (CMS), is fundamentally entrusted with the task of supporting digital teaching and learning (El Bahsh and Daoud 2016) and has been hailed as one of the most extensively utilized learning technologies in higher education (Abazi-Bexheti et al. 2018). LMS employs diverse pedagogical technologies while providing an infrastructure that enables the administration and management of learning materials, communication, assessment, and collaboration (Washington 2019). Some notable LMS employed by educational institutions include Moodle, Edmodo, Desire2Learn, Blendspace, Blackboard, Google Classroom, Sakai, Fronter, etc.

The Google Classroom application is one of the tools, platforms and media that is free and growing rapidly in the high school education process efficiently (Awang et al., 2019). With the Google Classroom platform, students and teachers are encouraged to share learning materials by forming an online learning environment community (Kaviza, 2020). In addition, other applications such as Google Drive, Google Slide, Quizizz, Kahoot, Quizlet, Ed-Puzzle and so on are available in this Google Classroom platform. These applications can be used as social networks, material sharing tools, interactive learning boards, data storage and provision of reinforcement training (Abdullah & Hussin, 2019). Therefore, all the applications found in Google Classroom play their own role and strength to emphasize the concept of 4C (communication, critical thinking, collaboration and creativity) in the implementation of 21st century learning strategies (Kaviza, 2020).

## Literature review

### Technology and Development in Malaysia

In order to ensure that the development of education is in line with current technological developments, KPM has ranked bestari schools among selected schools and known as the Bestari School Project since 1999. Apart from the use of ICT, KPM has introduced various platforms such as the 1Bestari Net Project, the Virtual Learning Environment-Frog (Frog VLE) and Portal Digital Education Learning Initiative Malaysia (DELIMa).

#### a. Digital Education Learning Initiative Malaysia Portal (DELIMa)

The Digital Education Learning Initiative Malaysia (DELIMa) portal is one of the learning and teaching platforms organized by the Ministry of Education (MOE) after the Frog VLE on 15 June 2020. This platform aims to channel information and collect data (Daud, Ab Rahman, & Adnan, 2020). Teachers and students can access this platform by using an existing Google account to carry out learning management. DELIMa is a platform that provides learning management system services as well as learning resources that can be used by educators and students to learn online. Ministry of Education (MOE) shows its openness to a global approach in meeting the demands of the Fourth Industrial Revolution (Education 4.0) by pairing three world technology giants, namely Google, Microsoft, and Apple as strategic partners. Google provides the G-Suite for Education package which has proven to be one of the best the best online learning ecosystem based on cloud computing technology. Microsoft offers an alternative to applications from Google, while Apple wants to provide learning resources based on creativity to help teachers and students. In addition, this platform can also be accessed by using the Ministry of Learning (MOE) Digital Learning (DL) e-mail that has been provided by the ICT coordinator at the school (Lubis et al., 2021). There are various interesting and useful free applications such as Google Classroom, Microsoft Teams, Digital Textbook and Microsoft Office 365 through the DELIMa platform that can help researchers and students manage online learning (Lubis et al., 2021).

#### b. Google Classroom application in Home-based teaching and learning (PdPR)

On July 1, 2019, Google Classroom was officially announced as a virtual learning platform in schools replacing Frog VLE. Google Classroom which originally only functioned as an alternative to support learning ICT (Information & Communication Technology) began to take center stage in schools after the refresh of DELIMA on June 15, 2020. The education sector that was severely affected by the COVID-19 pandemic was saved by Google Classroom which meets the needs of online learning involving 10 000 schools, 370 000 teachers and 2.5 million students throughout Malaysia.

The use of Google Classroom as a learning platform to replace traditional physical learning can create a 21st century learning environment. Google Classroom is growing rapidly because of its exclusive features which separately. Every individual who owns a Google account has access to Google Classroom without many restrictions or eligibility rules. Although in principle, Google Classroom aims to facilitate the creation, distribution and grading of assignments, but with the ability of this platform to combine applications within Google itself such as Google Drive, Google Docs, Google Sheet, Google Slide, History, Google Meet and Gmail, in addition to being able to integrate with hundreds of other applications such as Quizizz, Kahoot, Quizlet, Plickers, Ed-Puzzle and so on, making Google Classroom's functionality go far in the world of education (Muhammad Alif & Sanimah, 2019). Among them, Google Classroom as a social network, as a material sharing tool, as an interactive learning board, as a data storage center and as a preparation for reinforcement training (Ahmad Fkrudin, Wan Norma & Nor Khayati, 2019). These functions make Google Classroom more interesting and able to increase student motivation.

**c. Studies Related to Online Learning in Schools**

The rapid development of online learning has increased the use of various platforms and technology applications in the teaching and learning process. For this reason, various studies have been conducted to ensure that researchers and students can benefit from this learning process. Kaviza (2020) conducted a survey of Form Four students to identify the level of students' perspectives on learning History with the Google Classroom application from the aspects of knowledge, skills and attitudes. A total of 114 fourth-grade students participated as a study sample. In this study, the questionnaire instrument was adapted to obtain the level of students' perspectives on learning History with the Google Classroom application. The findings of this study have shown that the level of students' perspective from the aspects of knowledge, skills and attitudes is moderate. Therefore, Kaviza suggesting the need for collaboration between the Ministry of Education (MOE), the teachers and also the students to increase the level of perspective towards the use of the Google Classroom platform in the subject.

The analysis carried out showed that 77.66% of students agreed and 24.78% of students disagreed with the acceptance of Google Classroom facilities as a learning platform in the subject of Psychology and Mathematics. In this study, most students support that the use of Google Classroom facilitates the teaching and learning process. For example, they can save, print and access important documents and assignments in Google Classroom. In addition, the use of Google Classroom makes it easier for students to obtain announcements given quickly (real time). This has made learning and teaching run effectively and efficiently (Rumyeni, 2017). Students' willingness to use Kahoot! in learning Arabic was carried out in Kelantan by Yusoff et al. (2019). Kahoot! is an application that can create an interactive and fun learning environment. Kahoot! can also be integrated in Google Classroom. R2 value for intention to use Kahoot! is as much as 0.423 showing that 42.3% of respondents agree that the use of Kahoot! can contribute in online teaching and learning. The findings of the study also show that the expectation factor of ease of use is the main factor that drives students' intention to use Kahoot! in the class followed.

Based on the results of previous studies related to student readiness, it can be concluded that students are ready to use various applications including the Google Classroom application which can improve student achievement and the use of various teaching media integrated with ICT equipment can also improve the development of student knowledge. Based on these past studies, in general, studies on online learning in schools have been the focus. Therefore, this study was conducted to focus on the readiness in terms of knowledge, attitude, motivation and infrastructure facilities of upper secondary and lower secondary school students in Pasir Mas district, Kelantan towards Google Classroom.

# Methodology

### Research Design

This study implements a quantitative research method that is using a survey method using a questionnaire to help researchers collect more accurate and quality data and information.

### Sample Study

In this study, the population has been focused on high school students in Pasir Mas District, Kelantan as many as 19,000 students. These respondents consist of upper secondary and lower secondary school students from 3 types of schools, namely the National Secondary School (SMK), the National Religious Secondary School (SMKA) and the Government Aided Secondary School (SM SABK). This survey study aims to draw conclusions about the population based on the data and information contained in the sample.

The sample method used in this study is a simple random sample. A total of 480 high school students in Pasir Mas District, Kelantan were selected, consisting of 288 junior high school students and 192 high school students. The selection of this sample amount is appropriate. This is due to the large sample size increasing the possibility for researchers to select a sample that has the characteristics of the population (Rohaya Talib & Abd Ghafar, 2008). The determination of these samples is in reference to the table made by Krejie and Morgan (1970). After identifying the selected sample list, the researcher has asked for the cooperation of the respondents to answer the questionnaire provided using Google Form to be filled out.

# Result and Finding

Google Classroom was first introduced in August 2014 and was developed by Google to help teachers create, submit, distribute and measure assignments in a paperless way. The main purpose of Google Classroom is to coordinating the process of sharing materials between teachers and students. The use of Google Classroom is an alternative learning that supports conventional education and helps continuous learning that aims to optimizing ICT integration for student self-learning. The use of online learning seems easy but to involve all students and teachers makes it a big challenge (Heggart & Yoo, 2018).

### Analysis

The questionnaire results revealed a good degree of agreement between the respondents as a learning platform to replace traditional physical learning using Goole Classroom. The demographics background of the respondents is shown in Figure 1. 172 males and 307 female's from consisting junior high school students and 192 high school students and difference race had answer the questionnaire. A total of 480 surveys have conducted throughout this research.The demographics background of the respondents is shown in Figure 2. Out of the total survey sample, 90 % were Malay respondent.

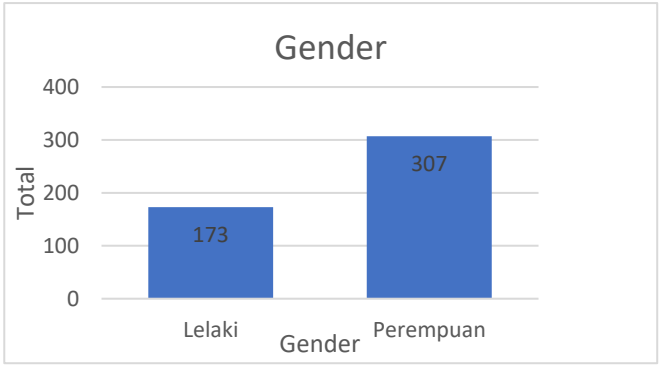


**Figure 1. Gender of the Respondent**

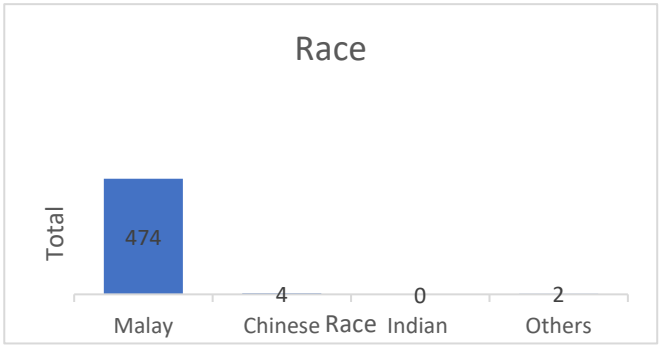


**Figure 2. Race of the Respondent**

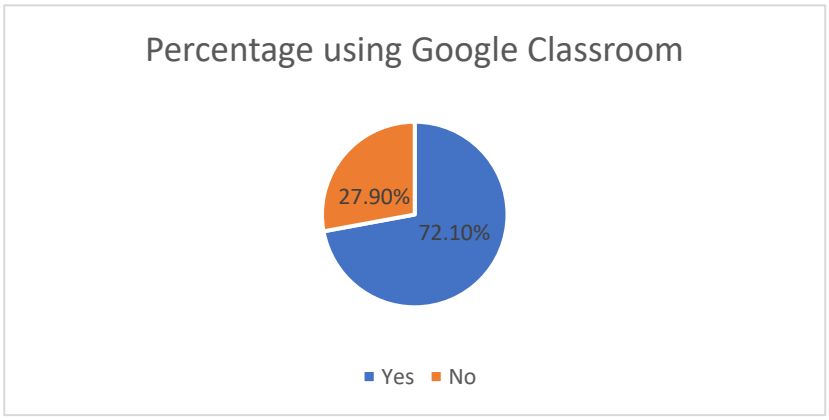


**Figure 3. Percentage student using Google Classroom**

From Figure 3, overall 72.10 % of the respondents consist of upper secondary and lower secondary school students from 3 types of schools, namely the National Secondary School (SMK), the National Religious Secondary School (SMKA) and the Government Aided Secondary School (SM SABK) that Google Classroom familiar using Google Classroom. In conclusion, the level of readiness of secondary school students towards the use of the Google Classroom application from the aspect of knowledge is at a moderate level and most of the rural areas compare to urban area applied Google Classroom in parent's house compare at school.

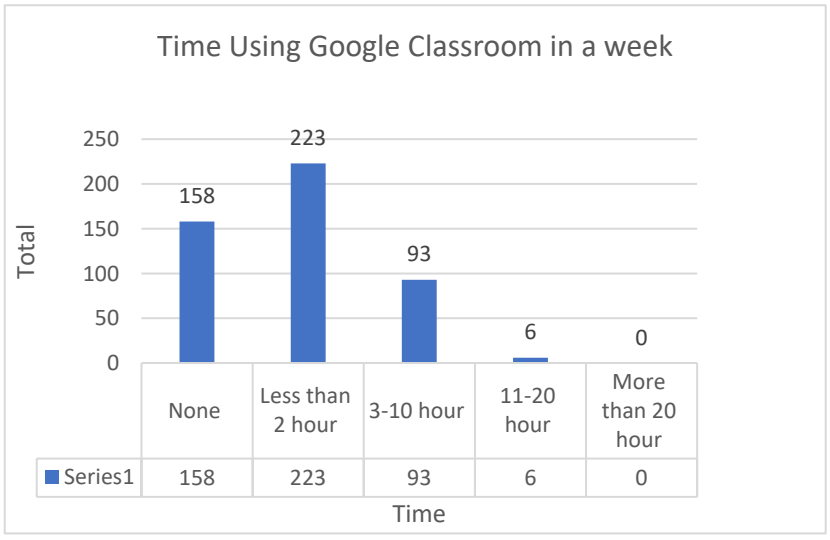


**Figure 4. Time in a week using Google Classroom belong to student**

From Figure 3, 223 of the respondent using Google Classroom less than 2 hour, 158 of the respondents none using Google Classroom and 93 respondent using Google Classroom between 3 to 10 hour. From this figure that conclused many aspect such as **G**oogle Classroom has not been fully explored and lack of support and exposure must be emphasis while technology must be improved to give more convenient for respondent fully using Google Classrom as alternative method for supporting education.

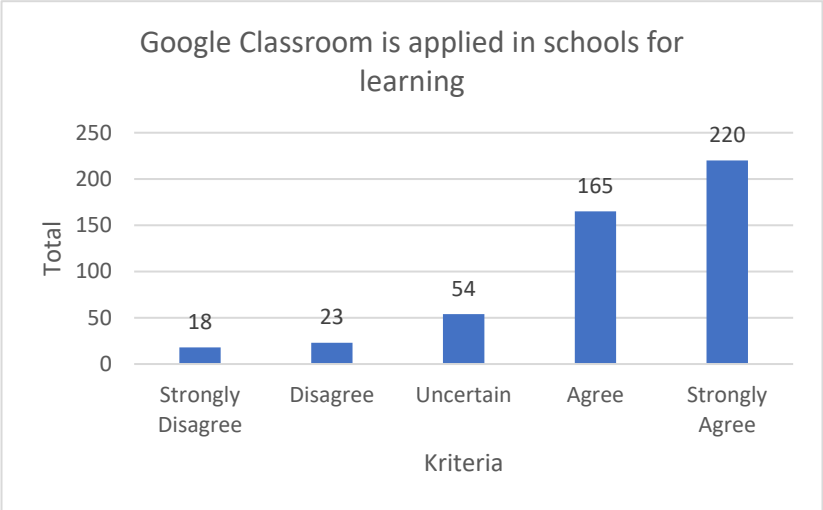


**Figure 5. Time in a week using Google Classroom belong to student**

From Figure 5, 220 of the respondent strongly agree, 165 of respondent agree and 54 of the respondent uncertain on time in a week using Google Classroom belong to student. From this figure that conclused respondent agree that Google Classroom applied in schools for learning can be better for improved to give more convenient for respondent fully using Google Classrom as alternative method for supporting education.

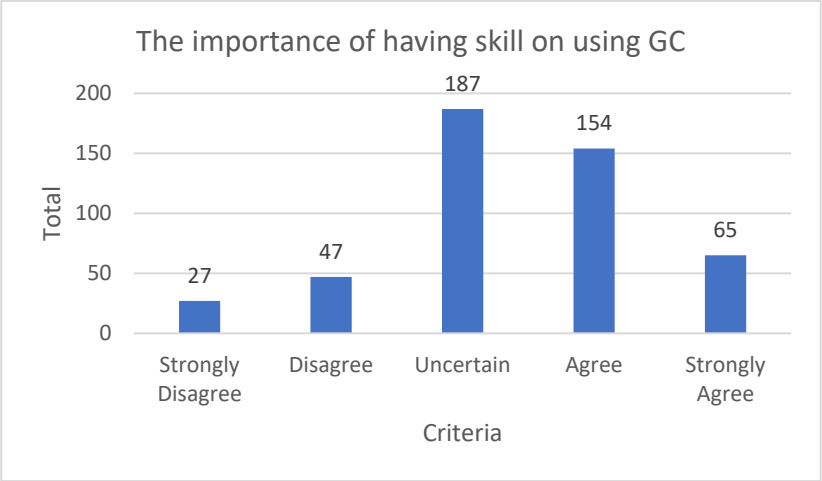


**Figure 6. The importance of having skill on using GC**

From Figure 6, 187 of the respondent uncertain importance of having skill on using Google Classroom, 154 of the respondent agree , 65 of respondent strongly agree and 47 of respondent disagree. From this figure that conclused respondent uncertain student not familiar using Google Classrom because there not fully using Google Classroom and skill of Information Technology must being first to improve and tool or device must complete to fully using Google Classrom as alternative method for supporting education.

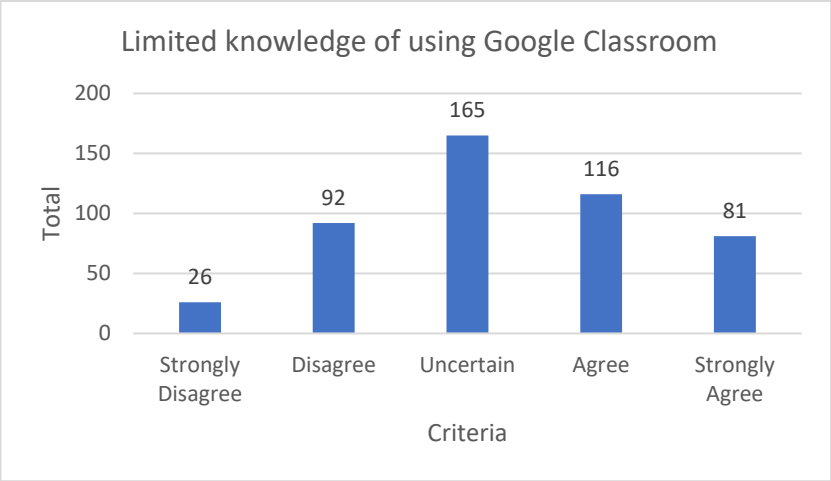


**Figure 7. Respondent's Limited Knowledge using Google Classroom**

From Figure 7, 165 of the respondent limited knowledge using Google Classroom, 116 of the respondent agree , 81 of respondent strongly agree and 92 of respondent disagree. From this figure that conclused respondent uncertain limited knowledge using Google Classroom because there not fully using Google Classroom and skill device supply from MOE must being first to improve fully using Google Classrom as alternative method for supporting education.

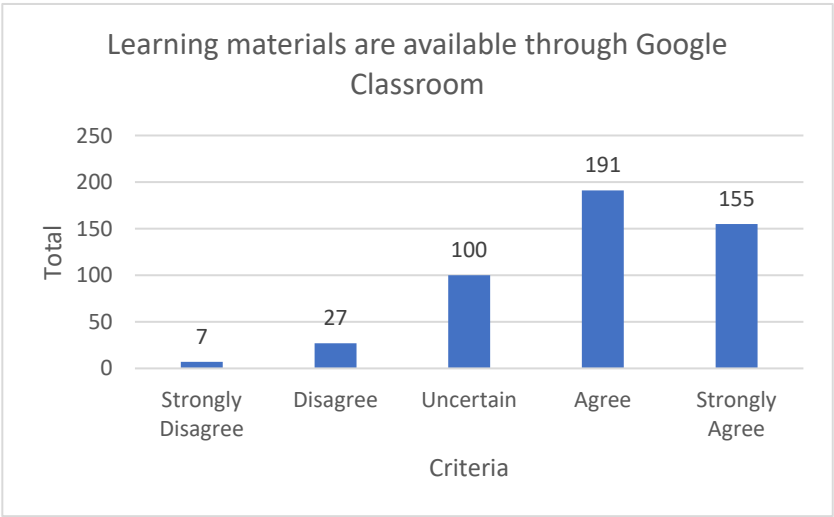


**Figure 8. Respondent's learning materials available through Google Classroom**

From Figure 8, 191 of the respondent agree , 155 of the respondent strongly agree and 100 of the respondent uncertain. From this figure that conclused that respondent agree that learning materials available through Google Classroom are important and useful for additional and alternative method in for supporting education.The knowledge, skills and attitude of the teacher are important in the success of any implementation because the teacher is the main pillar in shaping the event students

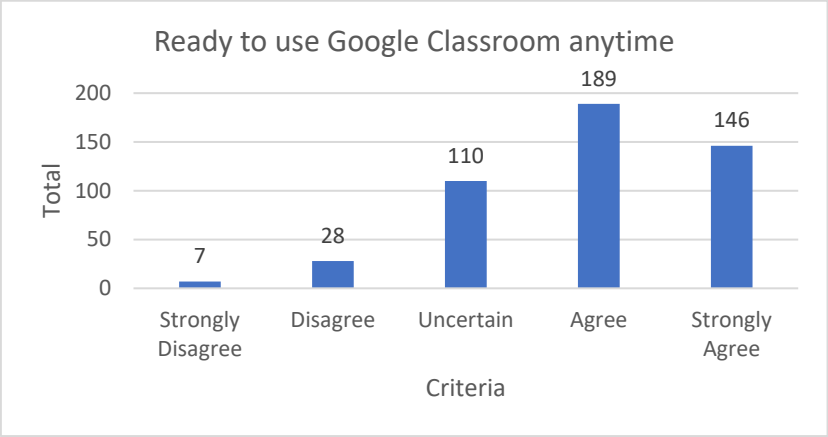


**Figure 9. Respondent's ready using Google Classroom anytime**

From Figure 9, 189 of the respondent agree , 146 of the respondent strongly agree and 110 of the respondent uncertain. From this figure that conclused that respondent agree Respondent's ready using Google Classroom anytime are important and useful for additional and alternative method in for supporting education.

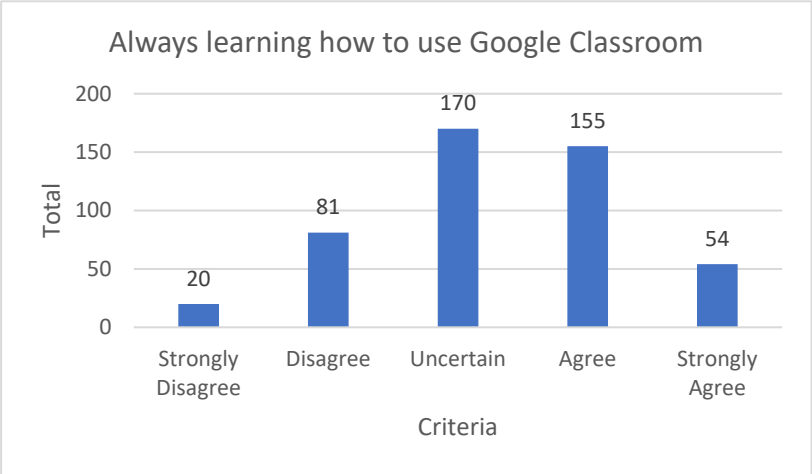


**Figure 10. Respondent's Leaning how to use Google Classroom**

From Figure 10 , 170 of the respondent uncertain, 155 of the respondent agree and 85 of the respondent disagree. From this figure that conclused that respondent uncertain that learning how to use Google Classroom application as a history learning media is still new and has not been fully explored in the context of secondary school education, although its benefits and potential have been recognized in supporting the virtual learning process based on the use of ICT.

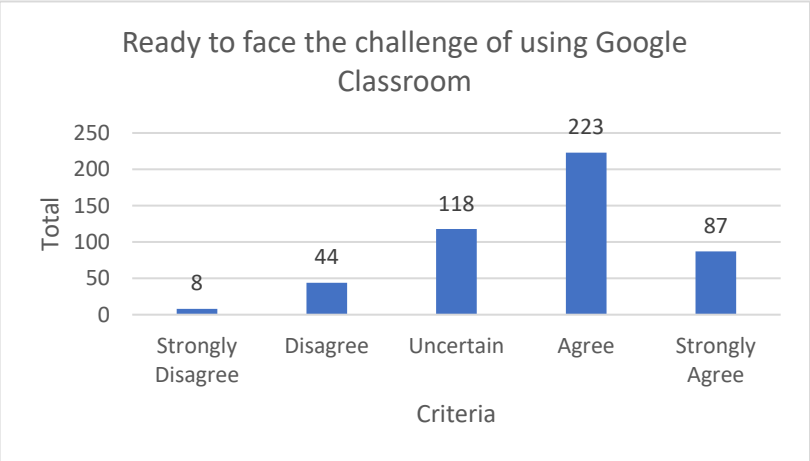


**Figure 11. Respondent's ready to challenge of using Google Classroom**

From Figure 11, 223 of the respondent agree , 118 of the respondent uncertain and 87 of the respondent strongly agree. From this figure that conclused that majority of the respondent agree that Respondent's ready to challenge of using Google Classroom. Various issues involving student readiness, including the issue of students not being proficient using computers or online learning and need to undergo training in the early stages of implementation. The knowledge, skills and attitude of the teacher are important in the success of any implementation because the teacher is the main pillar in shaping the event students.

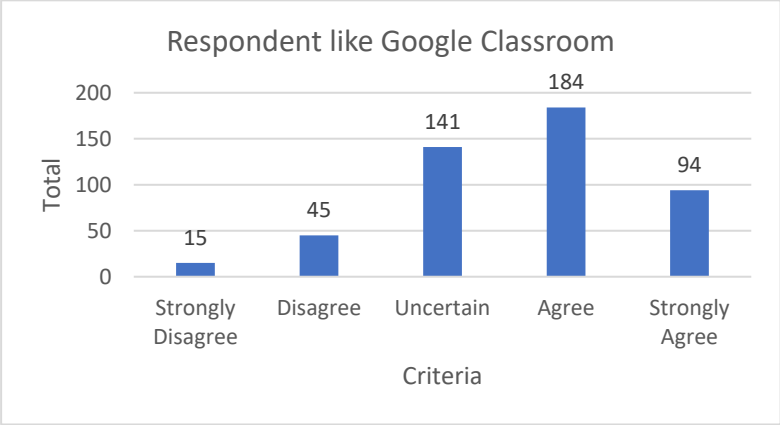


**Figure 12. Respondent's like using Google Classroom**

From Figure 12 , 184 of the respondent agree, 141 of the respondent uncertain and 94 of the respondent strongly agree. From this figure that conclused that respondent agree that learning Google Classroom in applied at school are important and useful for additional and alternative method in for supporting education. Students are ready to use various applications including the Google Classroom application which can improve student achievement and the use of various teaching media integrated with ICT equipment can also improve the development of student knowledge

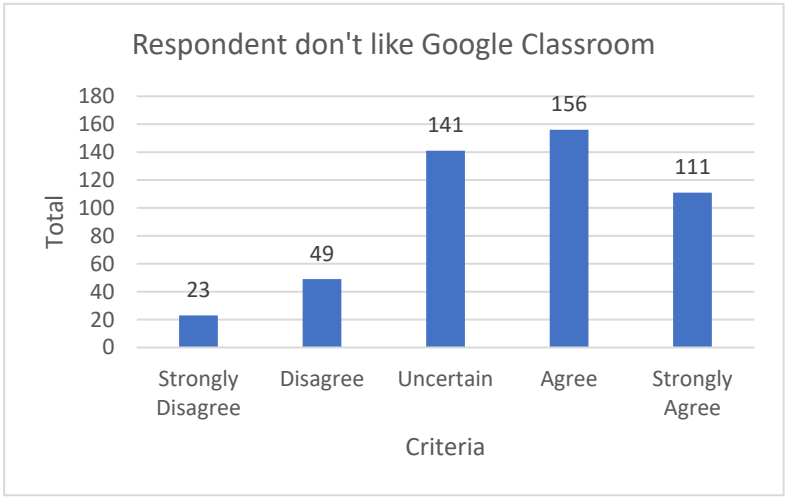


**Figure 13. Respondent's don't like using Google Classroom**

From Figure 13, 156 of the respondent agree, 141 of the respondent uncertain and 111 of the respondent strongly agree. From this figure that conclused that respondent agree don't like using Google Classroom especially in rural school. Pupils from B40 families were found to be more affected because they had to subscribe internet data to enable them to participate in classes, exams and submit assignment. In going through PdPR, internet access is a must-have priority apart from devices such as laptops or mobile phones. Whereas, for using the Google Classroom application, does require internet access stable and sufficient data quota.

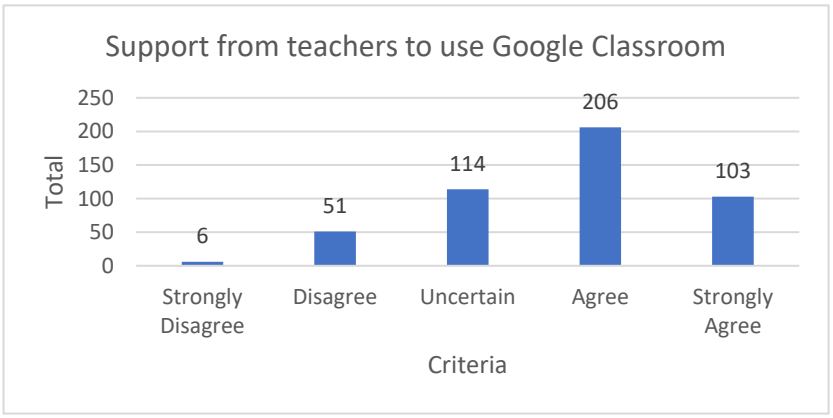


**Figure 14. Respondent's support from using Google Classroom**

From Figure 14, 206 of the respondent agree, 114 of the respondent uncertain and 103 of the respondent strongly agree. Support from teachers to use Google Classroom also stated that the level of teacher readiness in the PdP process by using technology applications is very high, but there are still weaknesses in terms of knowledge, skills and school infrastructure.

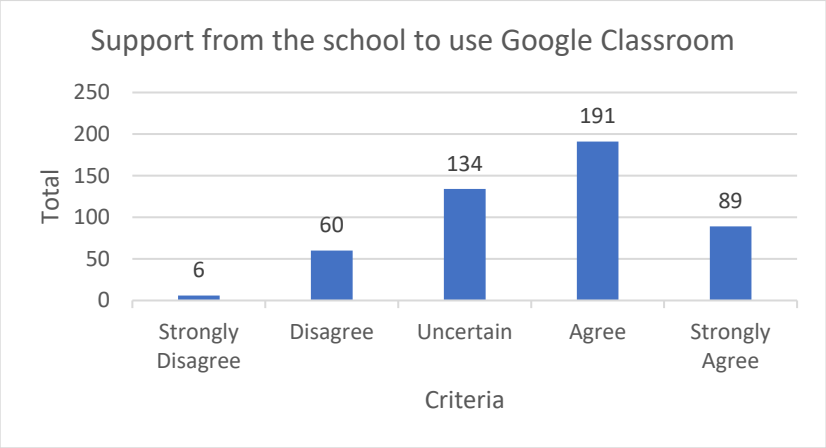


**Figure 15. Respondent's support from the school to use Google Classroom**

From Figure 15, 191 of the respondent agree, 134 of the respondent uncertain and 89 of the respondent strongly agree. From this figure that conclused that respondent support from the school to use Google Classroom. Students are ready to use various applications including the Google Classroom application which can improve student achievement and the use of various teaching media integrated with ICT equipment can also improve the development of student knowledge

**Issues and Challenges of Using Google Classroom in PdPR**

**a. Google Classroom Has Not Been Fully Explored**

The arrival of the Covid-19 epidemic has changed the education pattern of the country where the Google Classroom platform has become the choice and priority for teachers and students in carrying out Teaching and Learning at Home (PdPR) through online learning. Although there are many digital learning platforms that other such as Edmodo, Zoom Education, Microsoft Teams, Prezi and so on, the Google Classroom platform has become the main choice for teachers and students because KPM has provided a digital account which is one of the initiatives offered through the Digital Educational Learning Initiative Malaysia platform from KPM or DELIMa KPM for short. Each student, teacher and school will be given an account that allows them to access all facilities on Google Classroom individually free. Due to the lack of exposure and information about Google Classroom before, various parties are facing problems in use it especially to log into Google Classroom for the first time through a DELIma account. The use of the Google Classroom application as a history learning media is still new and has not been fully explored in the context of secondary school education, although its benefits and potential have been recognized in supporting the virtual learning process based on the use of ICT . Although Google Classroom is still considered new in the national education pattern, many studies and issues have been discussed recently regarding the implementation of PdPR through this platform.

**b. Lack of Support and Exposure**

Before the pandemic, Google Classroom records only recorded a low amount of use among teachers and students. Some teachers and students are not familiar with using Google Classroom, and some do not even know it exists This Google Classroom. This is due to the lack of exposure and support regarding Google Classroom either among teachers, students and parents. After the implementation of PdPR, Malaysia is among the countries that recorded the highest Google Classroom word searches in the world. Announcement of all educational institution closures including the primary school level, due to the sudden spread of the Covid-19 epidemic, all parties, whether teachers, students and parents, experienced difficulties and there was no preliminary preparation regarding

PdPR which had to be conducted online, especially through the Google Classroom learning platform.

**c. Teacher readiness**

The aspect of teacher readiness is seen in the context of implementing PdPR through the Google Classroom platform. The knowledge, skills and attitude of the teacher are important in the success of any implementation because the teacher is the main pillar in shaping the event students Awang et al. (2019) stated that what needs to be emphasized in realizing the Malaysian Ministry of Education's desire to promote online learning is the level of knowledge and willingness of teachers to use the Google Classroom platform.

However, a study by Noor Desiro Saidin & Hazrati Husnin.(2021) found that the level of knowledge of rural high school teachers about Google Classroom is at a low level. The results of the study by Khodijah et al. (2018) also stated that the level of teacher readiness in the PdP process by using technology applications is very high, but there are still weaknesses in terms of knowledge, skills and school infrastructure. This is supported by the study of Alruwais et. al, (2018), states that most teachers have basic computer knowledge, but less skilled in providing digital learning materials. Meanwhile, Saienko & Chugai, (2020). also stated that teachers who do not have skills sufficient technical skills will feel stressed in handling Google Classroom. The study of Rahmi Ramadhani et al. (2019) stated that training can encourage teachers to improve knowledge and understanding related to the development process (Learning Management System) LMS-Google Classroom, teachers can create LMS-Google Classroom up to upload teaching and assessment materials using Google Form, as well as teachers able to improve skills in integrating technology in the process (Learning Management System) LMS-Google Classroom, teachers can create LMS-Google Classroom up toupload teaching and assessment materials using Google Form, as well as teachers able to improve skills in integrating technology in the teaching process using LMS-Google Classroom. Therefore, teachers need to be proactive to develop knowledge, skills and improve professionalism with mastering the skills of today, which is technological literacy.

**d. Student readiness**

Readiness plays an important role in ensuring the level of student involvement to learn Yusoff et al. (2019). In implementing PdPR through the Google Classroom learning platform, readiness students are also taken into account especially in the aspect of influencing student motivation student involvement in PdPR. The success of online learning for students can influenced by motivation and involvement factors Surani & Hamidah (2020). The motivation and involvement of students is closely related to the willingness of students to undergo PdPR via Goosle Classroom. This is supported by the findings of Ugartini & Zamri (2021). stated that a few students were lazy and did not attend PdPR online especially among students from backward classes due to lack of self-motivation. Based on the results of the study Buja et al. (2020), students cannot give full focus on PdPR because some of them need to help their families in daily affairs, living in a residential environment is not conducive and not have electronic devices that support technology for learning.

Various issues involving student readiness, including the issue of students not being proficient using computers or online learning and need to undergo training in the early stages of implementation. There are also previous studies that reveal that students struggle to concentrate during online learning because they are not familiar with learning through their devices Mishra & Sharma (2020). This difficulty of online learning can cause students feeling stressed and unmotivated to get involved in PdPR. In addition, the readiness of students from high-income families is better from low-income families reinforces that socioeconomic linkages family affects online learning during MCO Andrew et al. (2020). Other constraints that we cannot deny especially for the students themselves who are less experienced with computers or online processes, computer and internet accessibility and constraints technical infrastructure in some areas Alruwais et

al. (2018). Study by Kaviza (2020) found the level of students' readiness to use the Google platform Classroom is at a moderate level and the results of this study are in line with the study conducted by Fitrinintiyas et al. (2018) who have reported that as many as 85 percentage of students in the field of history education still do not know and have not use the Google Classroom application extensively in the teaching process and their learning. Ugartini & Zamri (2021). explain the issue of student readiness as well include the ability and cooperation of parents in preparing the device.

**e. Internet access**

Online learning depends on the convenience of the internet to access learning material. The education sector has now prioritized the use of computers with a broadband Internet network that functions as a communication tool in the system information processing. The use of technology in education is not only applied in the clerical system, but also applied as a medium for convey knowledge. In this context, internet facilities that are internet access stable and sufficient internet data is needed by teachers and students to conduct PdPR through the Google Classroom platform. A study by Abdul Aziz et al. (2020) stated four main elements that are challenges and pressures to students during the new norm. The element is self-adjustment, problem internet access, time management weaknesses and financial issues to purchase data Internet. Hasnah (2020), explains 70 percent of students from socio-cultural backgrounds low economies feel burdened by the need for online learning. Pupils from B40 families were found to be more affected because they had to subscribe internet data to enable them to participate in classes, exams and submit assignment. In going through PdPR, internet access is a must-have priority apart from devices such as laptops or mobile phones. Whereas, for using the Google Classroom application, does require internet access stable and sufficient data quota. The high cost of internet is a burden to poor families. A study by Mishra & Sharma (2020) stated that the problem of internet access and the cost of data is a burden to students who cause their absence to online learning.

In addition, the issue of internet access problems is especially for rural areas and The interior needs attention. Poor technical infrastructure development makin the use of technology in the field of education difficult to implement (Alruwais et al. ,2018). This is also supported by Ugartini & Zamri (2021) which states that internet access should be taken into account to avoid gaps equal access to students.

**f. Device Tools**

Brilliannur et al. (2020) explained that PdPR is online for school students is less effective due to the existence of economic constraints in terms of means and infrastructure as well as teacher preparation in terms of knowledge level is also emphasized. Economic constraints have caused students to not be able to provide devices digital, less comprehensive broadband network speed, difficulty accessing internet and so on. Erick (2020) in his study stated that the absence devices may cause students to be unable to follow online learning further hindering students' opportunities to access this online learning. This statement is supported by Mazlan et al. (2020), students who come from families who less able will experience problems in undergoing PdPR because the possibility of not having a digital device for learning considering economic priority is more to the need for food, to support life.

A study conducted by Buja et al. (2020) found that most students facing constraints in PdPR because students share devices with parents and other siblings. When parents are working, students cannot engage in PdPR due to the problem of device unavailability. This can cause student motivation to be affected and disturb the students' readiness in PdPR which needs to be given attention by all parties. Buja et al. (2020) also stated the problem of students not being able to give full focus on PdPR because some do not have electronic devices that support technology for learning.

## Conclusion

The issue of Google Classroom, which has not been fully explored, involves the lack of exposure and support, as well as the readiness of teachers and students, along with limited access to the internet and device constraints. There are some suggested solutions, including enhancing readiness through teacher training, raising awareness among parents and guardians, promoting collaboration between the government and private sector, and improving information and communication technology (ICT) facilities and infrastructure. The management provides a reasonable support system in terms of facilities and training. The use of Google Classroom for home-based teaching and learning necessitates commitment from teachers, students, and parents. The practical implications highlight the need for teachers and students to not only possess technical proficiency in using Google Classroom, but also to engage in further research. The Malaysian Ministry of Education (MOE) can conduct additional research by re-evaluating successful practices and making them more explicit and effective for elementary school students. Additionally, it is crucial to address other challenges that arise in the use of this platform in order to modify the training plan. Industry stakeholders must collaborate to ensure that primary school students have access to technology and receive support for online learning.

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## References

Abdul Rashid Abdul Aziz, Amin Al-Haadi Shafie, Zuraina Ali & Noor Dahiah Sulhana Dzainal. (2020). Pengamalan nilai agama dalam mengatasi kemurungan semasa pandemik COVID-19. *Malaysian Journal of Social Sciences and Humanities, 5*(12), 31-44

Abdullah, M. A. R., & Hussin, S. (2019). Sikap dan Persepsi Pelajar Terhadap Penggunaan Aplikasi Web 2.0 dalam Proses Pengajaran dan Pembelajaran Bahasa Jepun di Universiti Putra Malaysia. *Jurnal Linguistik, 23*(1).

Abdullah, M. Y., Hussin, S., & Ismail, K. (2019). Implementation of Flipped Classroom Model and Its Effectiveness on English Speaking Performance. International Journal of Emerging Technologies in Learning, 14, 130-147. https://doi.org/10.3991/ijet.v14i09.10348

Abdullah, Muhammad Alif Redzuan and Hussin, Sanimah (2019) Sikap dan persepsi pelajar terhadap penggunaan aplikasi Web 2.0 dalam proses pengajaran dan pembelajaran bahasa Jepun di Universiti Putra Malaysia. Jurnal Linguistik, 23 (1). pp. 51-57. ISSN 1823-9242

Ahmad Fkrudin Mohamed Yusoff, Wan Norma Wan Hamat & Nor Khayati Basir (2019). Penggunaan aplikasi web 2.0 dalam proses pengajaran dan pembelajaran kursus mata pelajaran umum (MPU) di politeknik. E-Bangi, 16(5), 1-13.

Al-Rahmi, Ali & Al-Rahmi, Waleed & Alturki, Uthman & Aldraiweesh, Ahmed & Almotairi, Sultan & Al-Adwan, Ahmad. (2022). Acceptance of mobile technologies and M-learning by university students: An empirical investigation in higher education. Education and Information Technologies. 27. 10.1007/s10639-022-10934-8.

Alruwais, N., Alshehri, M., & Alghamdi, R. (2018). Exploring Saudi science teachers' knowledge, attitudes, and technology use. *International Journal of Emerging Technologies in Learning (iJET), 13*(12), 120-133. doi: 10.3991/ijet.v13i12.8551

Andrew, A., Cattan, S., Dias, M.C., Farquharson, C., Kraftman, L., Krutikova, S., Phimister, A. & Sevilla, A. (2020). Learning during the lockdown: Real-time data on children's experiences during home learning.

Azmil, Hasan, Lubis., Muhammad, Darwis, Dasopang. (2021). Online learning during the COVID-19 pandemic: how is it implemented in elementary schools?. Performance Evaluation, doi: 10.25273/PE.V11I1.8618

Buja A., Paganini, M., Cocchio, S., Scioni, M., Rebba, V. & Baldo V. (2020). Demographic and socio-economic factors, and healthcare resource indicators associated with the rapid spread of COVID-19 in Northern Italy: An ecological study. *PLoS ONE,* 15 (12),https://doi.org/10.1371/journal.pone.0244535

Chamidah, N., Zaman, B., Muniroh, L., & Lestari, B. (2020). Designing local standard growth charts of children in East Java province using a local linear estimator. International Journal of Innovation, Creativity and Change 13(1): 45–67.

Fitrinintiyas, R. Y., Anwar, K., & Haryono, Y. (2018). The Development of GoogleClassroom-Based E-Learning Model in Historical Learning. *Journal of Physics: Conference Series*, *1097*(1), 012089. doi: 10.1088/1742-6596/1097/1/012089

Hapini Awang, Nor Hashimah Jalaluddin, Muhd Najib Abdul Kadir, & Raja Masittah Raja Ariffin. (2019). The Development of a History E-Learning Module through the Integration of Augmented Reality and Google Classroom. *Journal of Educational Technology & Society, 22*(4), 213–226.

Hasnah Hussiin. (2020). Kesan COVID-19 kepada pelajar UMP: Satu kajian ringkas. Diakses dari: http://umpir.ump.edu.my/id/eprint/31654/1/Pandemik%20Covid19%20didik%20manusia%20tentang%20hidup%2 0beretika.pdf

Heggart, K. R., & Yoo, J. (2018). Online learning in the middle years: A critical synthesis of the literature. *Educational Research Review*, 25, 166-190.
https://ifs.org.uk/uploads/BN288-Learning-during-the-lockdown-1.pdf

Khodijah Abdul Rahman, Siti Zaharah Mohid dan Roslinda Ramli. 2018. *Kesediaan GuruMenggunakan Teknologi Multimedia Dalam Pengajaran Dan Pembelajaran Di Sekolah Rendah Agama Di Selangor.* Proceeding of 4th International Conference on Information & Society Selangor, Malaysia. (pp. 1-9). Kolej Universiti Islam Antarabangsa Selangor.

Krejcie, R.V. and Morgan, D.W. (1970) Determining Sample Size for Research Activities. Educational and Psychological Measurement, 30, 607-610.

*Maya dalam Kebiasaan Baharu Semasa Pandemik COVID-19*. Shah Alam: SIG: e-Learning@CS.

Mishra, P., & Sharma, S. (2020). Online Learning: A Study during Covid-19 Pandemic. *International Journal of Scientific Research and Management, 8*(8), 445–449. doi: 10.18535/ijsrm/v8i8.em02

Mishra, P., & Sharma, S. (2020). Online Learning: A Study during Covid-19 Pandemic. *International Journal of*

Muhammad Saiful Anuar Yusoff, Shahrizal Mahpol, & Muhammad Luqman Ibnul Hakim Mohd Saad. (2019). Determining the Acceptance Level of Google Classroom Among Teachers: A Technology Acceptance Model (TAM) Perspective. *Malaysian Journal of Learning and Instruction*, *16*(2), 1–22.

Muniroh Hamat, Siti Balqis Mahlan & Ch'ng Pei Eng. (2020). *Adaptasi Pengajaran dan Pembelajaran Secara*

Noor Desiro Saidin & Hazrati Husnin. (2021). Google Classroom Sebagai Pelantar MPembelajaran: Tahap Pengetahuan Dan Tahap Kesediaan Guru-Guru Sekolah Menengah Luar Bandar. *Jurnal Dunia Pendidikan*, *3*(2), 278-292

Rahmi Ramadhani, Rofiqul Umam, Abdurrahman Abdurrahman dan Muhamad Syazali. (2019). The Effect of Flipped-Problem Based Learning Model Integrated with LMSGoogle Classroom for Senior High School Students. *Journal for the Education of Gifted Young Scientists, 7*(2), 137-158

Rohaya Talib & Mohd Najib Abd Ghafar. (2008). Pembinaan dan pengesahan instrumen bagi mengukur tahap literasi pentaksiran guru sekolah menengah di Malaysia. Seminar Penyelidikan Pendidikan Pasca Ijazah 2008, 25-27 November 2008, Universiti Teknologi Malaysia.

Saienko, N., & Chugai, O. (2020). Quarantine: Teaching English from Home with Google Classroom, Class Time and Quizlet. Revista *Românească pentru Educație Multidimensională, 12*(1), 151-156. https://doi.org/10.18662/rrem/12.1sup2/258

*Scientific Research and Management, 8*(8), 445–449. doi: 10.18535/ijsrm/v8i8.em02

Selwendri, s & Rumyeni, Rumyeni. (2018). The Implementation of Technology Acceptance Models in the Online Shopping Activity Through Social Media Instagram Among University of Sumatra Utara Students. 10.2991/icosop-17.2018.98

Surani, A. B., & Hamidah, R. (2020). Faktor-Faktor Yang Mempengaruhi Penglibatan Murid Dalam Pembelajaran Atas Talian Semasa Perintah Kawalan Pergerakan (PKP) COVID-19 Di Malaysia. *Jurnal Psikologi Dan Kaunseling Perkhidmatan Awam Malaysia, 3*(2), 1-20.

Ugartini Magesvaran & Zamri Mahamod. (2021). *Aplikasi Google Meet sebagai Medium Pembelajaran Bahasa Melayu Secara dalam Talian di Kalangan Pelajar Sekolah Menengah*, Proceeding of International Conference of Business Studies and Education ICBE, 30-43