

# Exploring Opportunities and Challenges of Using WhatsApp in Teaching Reading: A Malaysian Rural Primary School Context\*

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## Abstract

Through the lens of COVID-19, the loss of learning in Malaysia was apparent as the rest of the countries in the world. In an effort to mitigate the loss, Malaysia announced the Movement Control Order (MCO) which helped to facilitate the home-based learning (HBL) system. As the schooling system migrates to online environments, teachers face significant barriers such as inavailability or lagging internet connectivity especially in the rural areas. Thus, asynchronous learning via WhatsApp was done throughout the MCO period. Cognizant to the foregoing issue, the aim of this study is to identify the technical and pedagogical opportunities as well as challenges of using WhatsApp features in teaching reading. Adopting survey research, this study examined 123 Malaysian rural primary English as a Second Language (ESL) teachers during the COVID-19 school closure. Descriptive analysis revealed that WhatsApp is advantageous as teachers are already using it and it can be used anytime and anywhere. It was also revealed that the lack of handphones and inactive students provide novel challenges in teaching and learning of reading via WhatsApp. This study contributes toward understanding the challenges teachers face in asynchronous ESL teaching and learning, besides discussing the implementation of WhatsApp as a means for instructional reading skills during the pandemic. The use of WhatsApp before and during the pandemic in ESL teaching can be explored as well. As asynchronous learning is implemented widely in areas with limited access to the internet during MCO, this study is pertinent to understand teaching reading via WhatsApp is possible and enables students to learn reading successfully.

\*A survey research paper to explore the technical and pedagogical opportunities as well as challenges of teaching reading via WhatsApp throughout the implementation of Home-Based Learning (HBL) during the COVID-19 pandemic: A Malaysian primary school context.

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## Keywords

ESL School Teachers, Home-Based Learning, Pedagogical and Technical Opportunities and Challenges, Mobile Learning, WhatsApp

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## 1. Introduction

The COVID-19 pandemic has created tremendous changes to the education industry around the world. When UNESCO announced that the corona virus disease was a pandemic, educational institutions worldwide had to close their door to contain the proliferating virus. In Malaysia, Movement Control Order (MCO) was first implemented by the national government following the rise of COVID-19 infections in mid-March 2020. Following the imposition of MCO, the decision to close schools due to the rising of COVID-19 cases was made under the purview of the Ministry of Education (MOE) with the risk assessment consultations from the Health Ministry (Malay Mail, 2021).

Whilst the school organisation and teachers prepare for Home-based learning (HBL), the closing of schools has changed the dynamics of learning from in-class to home-schooling style. Teachers are finding ways and means to encourage learners to be effective readers and to be able to put good use of their reading habits. Bao et al. (2020)'s model predicted the appraised reading ability among young children to decline by 66% during COVID-19 in comparison to normal schooling session.

This paradigm shift has caused teachers and students both to undergo many unplanned and unprecedented changes in terms of teaching and learning. Teachers face significant obstacles in order to adapt to fully online teaching, maintaining a minimal interaction and assisting students' learning and development (Al Abiky, 2021; Kaden, 2020; König et al., 2020).

The main challenge is the inavailability or lagging internet access, especially in suburban and rural areas. This has caused many teachers to forgo online learning to teach asynchronously. Most schools facing the internet issues choose the offline learning method to ensure learning goes on. Communication channels such as WhatsApp and Telegram became the main source of teaching and learning medium. As such, teachers in rural areas view WhatsApp as a viable social networking site which can help in learning reading skills and the collaboration between students and parents to discourage learning loss.

Although many researches have been conducted regarding the issue of digital and educational inequalities among children in Malaysia (Ambali, 2009; Dawood et al., 2019; Soh et al., 2012), the situation did not reach a widespread coverage as the conventional, face-to-face schooling system was adequate to foster learning for students. Unfortunately, the unprecedented pandemic has made online learning crucial for everyone, and the digital and educational divide seems to be a very serious issue. Cognizant of the foregoing issue and due to the scarcity of re-

search conducted in the Malaysian teaching and learning context during the pandemic, the driving questions of this study are:

- 1) What are the technical and pedagogical opportunities for primary ESL teachers when using WhatsApp in teaching reading?
- 2) What are the technical and pedagogical challenges encountered by primary ESL teachers when using WhatsApp in teaching reading?

## 2. Literature Review

### 2.1. Mobile Learning (M-Learning)

Mobile learning, also known as M-learning, is learning which is accomplished by using small portable computing devices which includes smartphones and personal digital assistants (PDAs) (Behera, 2013). Besides, mobile phones, other portable devices used for learning language include tablets, digital audio players, electronic dictionaries, e-book readers and handheld game consoles (Kukulska-Hulme, 2018). Moreover, access to GPS (global-positioning system), Wi-Fi, 3G, 4G, and Long-Term Evolution (LTE) can multiply the prospect of learning on the move, especially when there is a chance for accessing Internet and social media, and the location-based-software and application (Ali et al., 2020; Kukulska-Hulme, 2018). On this last aspect, M-learning could be delivered in three different ways: 1) pure connection (online use of materials with internet), 2) pure mobility (download and use of materials offline), and 3) Intermittent connection (a mixture of online and offline). Nevertheless, Trifonova (2006) did warn of the cases of mobile devices having certain periods of disconnection either intentionally (when the connection is too expensive) or not (when the infrastructure is provided).

However, what makes M-learning different from other forms of technology-dependent learning is the ability to mediate and facilitate learning experiences (Melhuish & Falloon, 2010). Far from being a theoretical possibility, mobile learning is an on-the-ground reality (Kraut, 2013). In an effort to eradicate illiteracy and support learning pedagogies, governments in major region in the Middle East, South Africa, Latin America, North America, Colombia, Cambodia, and Pakistan have launched initiatives and mobile-learning projects in remote areas even before the emergence of COVID-19 pandemic (Aluko, 2017; Khan et al., 2015; Kraut, 2013).

The ever-increasing ubiquity of mobile devices has allowed the reconceptualization of learning with the inclusion of technology. As such M-learning has many potential benefits such as the ability to facilitate personalized learning (Huang et al., 2012); provide immediate feedback and assessment (Hwang & Chang, 2011); enable anytime and anywhere learning (Ozdamli & Cavus, 2011). Besides, M-learning also ensures the productive use of time spent in the classroom or at home in the case of the COVID-19 pandemic. M-learning also helps to support situated, just-in-time learning opportunities (Pfeiffer et al., 2009); enhancement of seamless learning with the use of Internet and Wi-Fi (Wong, 2012). Kraut

(2013) also added that M-learning potentially acts as a bridge to formal and informal learning, build new communities of highly-digitized, technologically savvy learners, the ability to expand the reach and equity for education especially to students in remote areas, improve communication and administration as well as maximize cost-efficiency.

Besides, learning with mobile devices is affordable and easy to access. Educational applications such as WhatsApp, Zoom, Google Meet and Telegram are free for teachers with educational account, and it is free for students as well. With the assistance of M-learning, there is an immediate access to information and situation-dependent knowledge (Nyíri, 2002) which increases the chances for successful language learning. The social interactivity and connectivity of M-learning also offers a unique scaffolding (Peters, 2009) that can be customized to the teaching of a certain theme and topic. Students' engagement increases in the lesson as they access the devices and lesson modules independantly from others (Traxler, 2005), thus decreasing the sense of distraction in learning.

Although UNESCO previously stated that mobile learning may not be an educational panacea (Kraut, 2013), given the ubiquity of mobile learning and its relevance due to the pandemic, the onus rests on the countries including Malaysia to take initiative to conduct mobile-based learning to ensure continuity of learning for their students. M-learning has the ability to reach those who have missed out the opportunity to learn, in turn creating an inclusive learning for all especially in the wake of the COVID-19 pandemic.

## **2.2. The Opportunities in Using WhatsApp in Teaching Reading Skills during COVID-19**

COVID-19 has brought in the widespread use of online learning including mobile learning opportunities. Mobile learning applications such as WhatsApp have been used as a pedagogical tool in recent years. Prior to COVID-19, there were not many technological applications that are used both by teachers and students correspondingly. Nonetheless, WhatsApp has been used by many educators for technical reasons including cost-free, simplicity, availability, downloadability and indubitably many are already using it in real life (Gon & Rawekar, 2017).

Pedagogically, there is emerging proof that WhatsApp supports ESL teaching and learning. In the English as an Additional Language (EAL) intensive English classroom, the Indonesian undergraduate students practiced online literature circles and successfully completed integrated reading tasks such as infographic posters, sharing sessions via voice notes and summary writing via WhatsApp (Ferdiansyah et al., 2020). Similarly, Tangiduk et al. (2021) found that WhatsApp helps in optimizing student's reading comprehension via descriptive texts. They added that by providing opportunities to reach out personally, teachers were able to have a positive impact on the final learning outcome of reading comprehension.

Moreover, research also indicated that WhatsApp helps in learning reading, and coincidentally writing (Fujiono et al., 2021; Susanti, 2020) as well whereby

students are able to comprehend new vocabularies from a reading text and use those words in the discussion forum in the WhatsApp group. WhatsApp features such as sharing of materials, uploading and downloading of videos, and audios has enforced a positive learning aptitude among among the undergraduates in Indonesia and consequently, improved their reading comprehension as well (Afriyeni & Masbiran, 2021; Fujiono et al., 2021)

In Malaysia, [Chai and Basri \(2020\)](#) asserted that teachers employ multiple strategies for reluctant readers in primary school to read extensively. Some of the WhatsApp reading activities conducted were tongue twister and reading aloud via voice or video messages; extensive reading, information transfer, book-cover analysis, and true or false statements via picture, document or video sharing. The research evidently proves WhatsApp as an effective medium to encourage learners to have meaningful reading experiences provided teacher's produce interesting activities for them.

As compared to total dependence on teachers to help in their reading, WhatsApp allows students to be independent. [Ahmed \(2019\)](#) concluded that WhatsApp helps in providing space for natural communication especially in chats, learning to correct their errors by observing other students as well as increasing read, comprehend and interpret articles. As students are no longer confined to their classrooms, [Hazaea and Alzubi \(2016\)](#) also mentioned the use of WhatsApp, mobile cameras and mobile note making encourages students to participate in reading texts, using texts functionally as well as critically analysing the text. [Wahyuni et al. \(2020\)](#) also added that the lack of physical barrier as well as time constraints help the students to less likely feel the psychological pressure from peers, which in turn helps in learning the reading materials flexibly.

The success of reading groups is also linked to ranking and reward systems from teachers ([Akyıldız & Çelik, 2021](#)). Students tend to respond to feedback that triggers positive emotional connection such as gratefulness for an explanation. **Table 1** below summaries the challenges into 2 main elements: pedagogical and technical.

**Table 1.** Technical and pedagogical opportunities of using WhatsApp application.

Technical	Pedagogical
Straightforward and simple ( <a href="#">Gon &amp; Rawekar, 2017</a> )	Supports in ESL reading ( <a href="#">Tangiduk et al., 2021</a> ; <a href="#">Fujiono et al., 2021</a> ; <a href="#">Afriyeni &amp; Masbiran, 2021</a> ; <a href="#">Ferdiansyah et al., 2020</a> ; <a href="#">Susanti, 2020</a> )
Free of charge ( <a href="#">Gon &amp; Rawekar, 2017</a> )	Ranking and reward system ( <a href="#">Akyıldız &amp; Çelik, 2021</a> )
Easily available and downloadable ( <a href="#">Gon &amp; Rawekar, 2017</a> )	Provides interaction between teacher and students ( <a href="#">Ahmed, 2019</a> ; <a href="#">Chai &amp; Basri, 2020</a> )
Already using it ( <a href="#">Gon &amp; Rawekar, 2017</a> )	Correcting mistakes and clearing doubts ( <a href="#">Ahmed, 2019</a> )
	Easily accessible ( <a href="#">Hazaea &amp; Alzubi, 2016</a> )
	Anytime and anywhere ( <a href="#">Wahyuni et al., 2020</a> )

### 2.3. The Challenges in Using WhatsApp in Teaching Reading Skills during COVID-19

Most of the studies conducted during the pandemic reported barriers in using WhatsApp in teaching and learning. In a technical aspect, WhatsApp is limited due to constraints such as slow-speed internet connectivity (Fujiono et al., 2021; Yulianawati et al., 2021) longer loading periods, vague learning instruction (Md Yunus et al., 2021). Technical limitations such as the lack of smart phones, signal towers and the costs to purchase quotas were also reported by Ubaedillah and Pratiwi (2021).

Some other major hindrance factors in learning online are students' hailing from low-income family background (Lukas & Md Yunus, 2021), and eye strain by over-using technical appliances such as laptops and handphones (Gon & Rawekar, 2017). Research conducted by Gupta et al. (2021) proves that the age group significantly increases the risk of getting a higher computer vision syndrome (CVS) score among school children. As viewership and average time spent increases, complex eye and vision problems such as difficulty in focusing, eye pain, headache and blurred distance vision occur.

Besides that, the challenges of an overloaded curriculum with a lot of courses to handle at a time and the manual searching of old posts has made using WhatsApp a laborious process (Mwakapina et al., 2016). In that case, as teachers are expected to be available all the time pass their working hours (Gon & Rawekar, 2017), the ability to evaluate and give feedback for each and every student also becomes cumbersome for teachers.

Other than feedback, teachers' presence is important in establishing a relationship with their students, whether synchronously or asynchronously. Rapanta et al. (2020) added that there are three main teacher presences: 1) cognitive, where a teacher takes into consideration students' readiness and willingness in participating in an online class; 2) social, which refers to the communication between teachers and students; and 3) facilitatory; which embodies teachers resources and activities. Other than that, the most challenging part of transitioning from face-to-face to mobile learning is the difficulty in assessment.

Rapanta et al. (2020) also agreed that the continuous assessment model must be adopted to the current learning situation to avoid burn-out among teachers due to continuous engagement with students. In that sense, Maslan and Mohd Nor (2020) show that although the practicality is moderate, generally, there is a high feasibility in conducting the classroom-based assessment also known as Pentaksiran Bilik Darjah (PBD) by teachers in another district in Malaysia during the MCO.

On the other hand, Amin and Sundari's (2021) study revealed that all three digital learning platforms; Cisco WebEx Meeting, Google Classroom and WhatsApp received lowest scores in the impact at group-participants indicating face to face learning is still much preferred than fully online and digitalised learning systems. Similarly, Darkwa and Antwi (2021) also stated that teachers' pedagog-

ical knowledge is more effective in the classroom as compared to online context. Furthermore, [Darkwa and Antwi \(2021\)](#) stated that teachers' presence is very much needed to help students with a more profound level of cognition.

[Rahmadi \(2020\)](#) also states that although students are active users of WhatsApp in real life, the situation is reversed in a learning circle. They are passive, unprepared to learn actively, cooperatively and independently via WhatsApp. Students who read the reading materials given before class and those who reread materials after class are very less. Majority does not answer or ask questions in the WhatsApp group. Similarly, [Akyıldız and Çelik \(2021\)](#) also added that students tend to be active individually but lack collaborative learning among peers. Students who are active in WhatsApp discussions also consist of those high-performing ones as compared to low-performers who are mostly quiet.

WhatsApp groups also create the issue of students being distracted, the tendency to copy and paste their friend's work as well as limited time in conducting lessons ([Niah, 2021](#)) due to mobile fatigue. [Wahyuni et al. \(2020\)](#) further assert that the lack of direct explanation of teachers makes it harder for students to understand the materials given. As some students prefer listening and not reading the materials to understand. Furthermore, other research also found out there are confusion in using the right tenses and vocabularies when answering reading questions ([Susanti, 2020](#)) as well as lexical richness, misspellings and non-standard orthographic details ([Verheijen & Spooren, 2021](#)).

Moreover, there is evidence that students lose motivation and focus after some weeks of online learning indicating low productivity and low achievement in the ESL reading lessons ([Yulianawati et al., 2021](#)). The research further pointed out that students mostly stayed in lower order of thinking (LOTS) such as expressing opinions on a reading question instead higher order of thinking (HOTS) such as providing examples or elaborating more on certain topics.

In the midst of COVID-19, where WhatsApp is used to conduct ESL classes, the difference in students' language proficiency ([Asmara, 2020](#)) and age levels ([Verheijen & Spooren, 2021](#)) are also noted to be a hindrance for teachers in the teaching process. **Table 2** below summaries the challenges into 2 main elements: pedagogical and technical.

### 3. Methodology

#### 3.1. Research Design

This study employed quantitative descriptive research using the survey method. The data collected provided an investigation on two aspects: the opportunities and the challenges of using WhatsApp features to teach reading during HBL in Malaysia.

#### 3.2. Research Sample

As the researchers are involved in using WhatsApp as the primary tool in teaching, the need to observe the particular issue of using WhatsApp in teaching and

**Table 2.** Technical and pedagogical challenges of using WhatsApp application.

Technical	Pedagogical
The lack of smart phones, due to low-income family background (Gon & Rawekar, 2017; Lukas & Md Yunus, 2021)	Some students prefer face-to-face learning than learning in groups (Amin & Sundari, 2021)
Manual searching of old posts (Mwakapina et al., 2016)	Difference in student's language proficiency (Asmara, 2020; Susanti, 2020; Verheijen & Spoooren, 2021)
Slow speed internet connectivity and the resulting slow loading problems (Fujiono et al., 2021; Md Yunus et al., 2021)	Vague learning instructions from teachers (Wahyuni et al., 2020)
	Distracted students (Niah, 2021; Yulianawati et al., 2021)
	Copy and pasting friend's homework (Niah, 2021)
Digital eye-strain (Gupta et al., 2021)	Limited time in conducting lessons (Niah, 2021)
	Teachers' curriculum overload (Mwakapina et al., 2016)
	Laborious process of assessment and feedback (Gon & Rawekar, 2017; Maslan & Mohd Nor, 2020)

learning during the pandemic arises. Thus, a specified method of purposive sampling; homogeneous sampling, is used (Etikan et al., 2016). The respondents are ESL primary school teachers who are chosen based on three parallel qualities that they possess which reflects the HBL situation in a district in Malaysia. As this study aims to investigate the opportunities and challenges of using WhatsApp in teaching reading skills during the HBL, essentially they are chosen based on a few criteria as follows; 1) English lesson is conducted asynchronously with the students via WhatsApp; 2) WhatsApp is used as the main teaching and learning tool; and 3) information and discussions regarding the reading lessons are communicated via WhatsApp as well. This study excludes primary ESL teachers who use synchronous learning applications such as Zoom or Google Meet with their students.

The number of respondents is 150 and the return responses from the survey are 123 (82%). This is in line with Fincham (2008) who highlighted that response rates approximating 60% must be the goals of researchers for survey research. Based on the results of the questionnaire, the demographics of the participants are shown in **Table 3**.

Based on the sample collected through the distribution of questionnaires, the majority of the respondents, 78%, are from an English option background and 22% are from a non-English option background.

The respondents also vary in their English language teaching experience. The silent majority are with 5 years and less experience (37%) and 6 to 10 years of experience (24%). The rest of the respondents fall under 3 other categories namely, 11 to 15 years (16%); 16 to 20 years (7%) and finally 21 years and above (15%). 81% of respondents are currently teaching in national-type schools (Sekolah Kebangsaan); while 14% in national-type Tamil schools and 4% in national-type Chinese schools.



**Table 3.** Participants' demographics.

Variable	Category	Frequency, n	Percentage, %
Teaching option	English option	96	78
	Non-English option	27	22
	Total	123	100
English language teaching experience	5 years and less	46	37
	6 - 10 years	29	24
	11 - 15 years	20	16
	16 - 20 years	9	7
	21 years and above	19	15
	Total	123	100
Which type of school you are currently teaching in?	Sekolah Kebangsaan (SK)	100	81
	Sekolah Jenis Kebangsaan Tamil (SJKT)	18	14
	Sekolah Jenis Kebangsaan Cina (SJKC)	5	4
	Total	123	100

### 3.3. Research Instrument and Procedures

In this research, a questionnaire was used to identify the opportunities and challenges of using WhatsApp to teach reading during the pandemic. There are 28 items across three sections: demographics, opportunities, and challenges of using WhatsApp for teaching reading. Section A in the questionnaire contains 5 questions on participants' background information: gender, teaching option, highest academic qualification, English language teaching experience and school type. Section B contains 10 items on opportunities to use WhatsApp in teaching reading. This section mainly states the advantages of using the WhatsApp application in teaching reading skills to the students. Section C contained 13 items on the challenges faced by the teachers when using WhatsApp to disseminate and enhance their teaching. **Table 4** lists these descriptions.

Questions in Section B and C were adapted based on the research findings on the use of WhatsApp by [Gon and Rawekar \(2017\)](#). Both sections B and C are created based on M theory: the ubiquity of mobile devices has allowed the reconceptualization of learning with the inclusion of technology. Section B and C consist of questions that include the use of a 4-point Likert scale to provide an understanding of the respondents' choices when it comes to choosing technical and pedagogical opportunities and challenges. Based on the given statements, respondents were required to choose from 1 (Never used), 2 (1 - 2 times per week), 3 (3 - 4 times per week), 4 (more than 4 times per week).

Prior to administering the survey, an expert opinion, whose background is from TESL, was sought for Face Validity to evaluate the presentation of the questionnaire. Aspects such as feasibility, readability, consistency in style and formatting and clarity of the language are considered ([Taherdoost, 2016](#)). Ambiguous statements are changed as per the reviewer's request. The questionnaire is considered valid after the appraisal.

**Table 4.** Distribution of Items.

Section	No. of Items	Type of Information
A	5	Demographics
B	10	Opportunities
C	13	Challenges

Besides carrying out the Face Validity check, another most used internal consistency measure is the Cronbach Alpha coefficient (Taherdoost, 2016). The reliability of the survey items in the questionnaire was done via Cronbach's alpha analysis. The collected data from the Google form was exported to an Excel and thereafter, transferred to the SPSS Version 26 system. The compound reliability range must exceed the recommended reliability coefficient of 0.70 to be considered as acceptable in most social science research (Md Yunus et al., 2021). Based on Table 5, the Cronbach alpha exceeds the recommended value of 0.70, thus the survey items were considered reliable.

The modified and updated survey questionnaire was then converted to a Google form and administered online due to constraints of the COVID-19 pandemic. The link of the form was shared via social applications such as WhatsApp and Telegram. The "required" function in Google form was used to allow complete responses from the participants (Md Yunus et al., 2021). The data were collected in 3 weeks as the respondents, who are working adults, needed some time to complete the questionnaire. Data from the e-questionnaire was then analyzed in Excel and SPSS Version 26.

## 4. Findings and Discussion

For the purpose of this research, the mean (M) score was used to evaluate the frequency of agreements and disagreements to the opportunities as well as challenges of using WhatsApp application to teach reading during HBL. The M score interpretation table constructed are adapted from Pimentel (2019) and Wiersma (2000) which was integrated in this study. The M score interpretation table can be referred to Table 6 below.

### 4.1. Opportunities of Using WhatsApp to Teach Reading Skills

The researchers conducted a survey to identify the opportunities of using WhatsApp features in teaching reading among ESL teachers, which involved 123 respondents. The opportunities are divided into two constructs, which include: 1) technical, 2) pedagogical opportunities.

#### 4.1.1. Technical Opportunities of Using WhatsApp to Teach Reading Skills

Table 7 summarizes the respondents' technical opportunities when they are using WhatsApp to teach reading skills. Based on Table 7, it can be noted that these data are statistically significant towards agreements as compared to disagreements. More than 50% of respondents have agreed that there are technical

**Table 5.** Cronbach's alpha.

Reliability Analysis		
Cronbach's Alpha	Number of items	Interpretation
0.951	28	Reliable

**Table 6.** Interpretation of M score as adapted from Pimentel (2019) and Wiersma (2000).

M Value	Level of Interpretation
1.00 - 2.00	Low
2.01 - 3.00	Moderate
3.01 - 4.00	High

**Table 7.** Technical opportunities of using WhatsApp features in teaching reading.

Num	Technical Opportunities	Frequency				M	Interpretation
		(SD)	(D)	(A)	(SA)		
B1	Straightforward and simple	5 (4%)	17 (14%)	82 (67%)	19 (15%)	2.93	Moderate
B2	Free of charge	12 (10%)	28 (23%)	65 (53%)	18 (15%)	2.72	Moderate
B3	Easily available and downloadable	5 (4%)	22 (18%)	75 (61%)	21 (18%)	2.91	Moderate
B4	Already using it	4 (3%)	16 (13%)	76 (62%)	27 (22%)	3.02	High

(SD) = Strongly Disagree, (D) = Disagree, (A) = Agree, (SA) = Strongly Agree.

opportunities in using WhatsApp to teach reading. Notably, the M value for items B1 to B3 presents medium score values. This indicates the opportunities are neither too simple nor too challenging in the respondents' experiences.

67% of respondents agreed that using WhatsApp to teach reading lessons and activities is quite straightforward and simple ( $M = 2.93$ ,  $SD = 0.674$ ). However, a small number of respondents, 14%, disagreed on that item. Although WhatsApp is evidently not modelled as an educational tool, teachers have been able to re-conceptualize the application for education. Nevertheless, the use of WhatsApp itself is probably arduous and effortful while teaching reading to their students. The lack of separate platforms for comments and discussion; checking and marking student's assigned works and checking on student's attendance may prove to be strenuous for some respondents.

Similarly, 53% of respondents agreed that WhatsApp is free of charge ( $M = 2.72$ ,  $SD = 0.833$ ) and 61% agreed that it is easily available and downloadable ( $M = 2.91$ ,  $SD = 0.713$ ). Nevertheless, 18% of respondents disagreed that WhatsApp is easily available or downloadable as well as 23% stayed less informed on WhatsApp being free of charge indicating some challenges of using the application for free. It can be deduced that the unavailability of school's common Wi-Fi system and the cost to purchase personal internet data plans (Gon & Rawekar, 2017;

Ubaedillah & Pratiwi, 2021) is what makes the respondents to think of it as a paid application.

Other than that, 62% of respondents agreed that they are already using WhatsApp applications prior to the HBL ( $M = 3.02$ ,  $SD = 0.695$ ). This is the highest recorded  $M$  score as compared to the other items which indicates that most of the respondents (84%) agree and strongly agree to the fact that they have been using it as a way of communication with others hitherto.

#### 4.1.2. Pedagogical Opportunities of Using WhatsApp to Teach Reading Skills

**Table 8** outlines the construct which involved six items representing pedagogical opportunities on respondents whilst using WhatsApp to teach reading to their students. Items B5 to B9 are interpreted as moderate and item B10 as high in their  $M$  values respectively.

Only 47% of respondents agreed that WhatsApp provides a conducive environment to teach reading to their students ( $M = 2.58$ ,  $SD = 0.758$ ). Almost equally, 44% of respondents disagreed and strongly disagreed on that said matter. The low  $M$  score provides evidence that the WhatsApp application is only conducive to some and not to others. Evidently, this finding shows that learning via WhatsApp is conducive up to a certain level only. Factors such as student's proficiency (Asmara, 2020) as well as age and learning levels (Verheijen & Spooren, 2021) are always at stake when dealing with online lessons, be it synchronous or asynchronous. The missing human factor is complex and hard to be replicated via WhatsApp. Contrarily, the conduciveness of the environment can also be the physical classroom itself. On one hand, the lack of a physical barrier reduces psychological stress (Wahyuni et al., 2020) and encourages students to participate in reading texts (Hazaea & Alzubi, 2016). On the other hand, the lack of a teacher's presence may cause the students to be indolent and inactive in participating in activities given.

Next, more than 50% of respondents agreed that WhatsApp creates a sense of belonging to the class ( $M = 2.71$ ,  $SD = 0.686$ ), which in turn provides an excellent interaction between the teacher and students ( $M = 2.89$ ,  $SD = 0.617$ ). As WhatsApp groups provide a simple social networking among teachers and students, this proves that students' social interactivity and engagement with teachers are still seen similar to the real-life classroom situation. Besides, 69.9% of respondents agreed that doubts, if there are any, are cleared immediately during the class hours or during feedback ( $M = 2.84$ ,  $SD = 0.632$ ). This finding supports Tangiduk et al. (2021) wherein by providing opportunities to reach out personally, the chances for successful language learning increases among students.

More than 60% of respondents agreed that WhatsApp helps make teaching reading easily accessible ( $M = 2.96$ ,  $SD = 0.619$ ); and can be conducted anytime and anywhere ( $M = 3.12$ ,  $SD = 0.622$ ). The use of mobile devices such as hand-phones allows freedom of movement as well as portability (Melhuish & Falloon, 2010) for both teachers and students.

**Table 8.** Pedagogical opportunities of using WhatsApp features in teaching reading.

Num	Pedagogical Opportunities	Frequency				M	Interpretation
		(SD)	(D)	(A)	(SA)		
B5	Conducive environment	9 (7%)	45 (37%)	58 (47%)	11 (9%)	2.58	Moderate
B6	A sense of belonging	5 (4%)	37 (30%)	70 (57%)	11 (9%)	2.71	Moderate
B7	Provides an interaction between teacher and students	3 (2%)	22 (18%)	84 (68%)	14 (11%)	2.89	Moderate
B8	Doubts are cleared	5 (4%)	21 (17%)	86 (70%)	11 (9%)	2.84	Moderate
B9	Easily accessible	2 (2%)	20 (16%)	82 (67%)	19 (15%)	2.96	Moderate
B10	Anytime and anywhere	2 (2%)	11 (9%)	80 (65%)	30 (24%)	3.12	High

(SD) = Strongly Disagree, (D) = Disagree, (A) = Agree, (SA) = Strongly Agree.

## 4.2. Challenges of Using WhatsApp to Teach Reading Skills

Similar to the opportunities' constructs, the challenges are also divided into two constructs, which include: 1) technical, 2) pedagogical challenges.

### 4.2.1. Technical Challenges of Using WhatsApp to Teach Reading Skills

**Table 9** shows the descriptive analysis of the technical challenges in teaching reading via WhatsApp. As reported, in analysing the technical challenges that arise when using WhatsApp, Items C1 to C5 are seen to be more challenging as compared to item C6. 51% respondents also strongly agreed to conditions such as eye- and neck-strain by using WhatsApp compatible appliances such as laptops, handphones and tablets for more than 3 hours per day to teach reading ( $M = 3.42$ ,  $SD = 0.690$ ). As an emerging trend in learning through the lens of COVID-19, this result on adult respondents directly supports the study by [Gupta et al. \(2021\)](#) which shows the prevalence of digital eye strain as an impact from the upsurge of digital device exposure among school children.

Exploring further, 54% of respondents strongly agreed that they were informed about their students' condition at home whereby there were many of them without a personal handphone or those who share handphones with their siblings at home ( $M = 3.49$ ,  $SD = 0.606$ ). This is consistent with [Lukas and Md Yunus \(2021\)](#) who reported on low-income families facing financial adversity have low enrolment rates during HBL. The competing facets such as the pressure to be a child, helping parents and siblings at home; as well as a student, trying to learn at the same time is immeasurable. This finding sheds light onto the respondents, who are teachers to these marginalized students, that they do understand the adversity of COVID-19 on their students.

**Table 9.** Technical challenges of using WhatsApp features in teaching reading.

Num	Technical Challenges	Frequency				M	Interpretation
		(SD)	(D)	(A)	(SA)		
C1	Message flooding	3 (2%)	15 (12%)	72 (59%)	33 (27%)	3.10	High
C2	Students without a personal handphone or share handphones with their siblings at home	1 (1%)	4 (3%)	52 (42%)	66 (54%)	3.49	High
C3	Time consuming (more than 3 hours per day)	3 (2%)	14 (11%)	70 (57%)	36 (29%)	3.13	High
C4	Eye- and neck-strain (more than 3 hours per day)	3 (2%)	5 (4%)	52 (42%)	63 (51%)	3.42	High
C5	Utilizes a lot of internet data (more than 3 hours per day)	9 (7%)	11 (9%)	54 (44%)	49 (40%)	3.16	High
C6	Group maintenance	9 (7%)	31 (25%)	56 (46%)	27 (22%)	2.82	Moderate

(SD) = Strongly Disagree, (D) = Disagree, (A) = Agree, (SA) = Strongly Agree.

59% of respondents agreed that there are a copious number of messages flooding in the WhatsApp chat inboxes ( $M = 3.10$ ,  $SD = 0.694$ ). Similar to a teacher responding to his or her students in the physical classroom, the situation has been brought into the online learning platform as well. Whether in a group setting or individual, the teacher is responsible to facilitate discussions and further give feedback to the students' reading lessons and activities. In turn, 57% of respondents also agreed to the fact that using WhatsApp to teach reading for more than 3 hours per day is ultimately time consuming ( $M = 3.13$ ,  $SD = 0.701$ ) as the possibility of time boundary is blurred. Unlike the traditional way of teaching reading in the classroom or synchronous teaching method using Zoom or Google Meet, WhatsApp learning seems to overlook the time limit. This is partly due to reasons such as students having to wait for their siblings to finish their homework before lending the phone or the inaccessibility of network towers or lagging internet speed in the rural area.

Correspondingly, 44% strongly agreed that the use of WhatsApp for more than 3 hours a day utilizes a lot of internet data for the respondents; and this includes 45.5% who agreed that they must maintain the group chat during the HBL to ensure learning continuity. As an asynchronous learning session, the use of WhatsApp is challenging to many teachers. In her research, [Asmara \(2020\)](#) noted that one of the weaknesses of this application is the inability to check on each and every student in the WhatsApp group. Students' reply and response to their teacher's messages and instructions seem to be the only way to check their presence in the class.

#### 4.2.2. Pedagogical Challenges of Using WhatsApp to Teach Reading Skills

The constructs in **Table 10** involved seven items representing the pedagogical challenges on respondents whilst using WhatsApp to teach reading to their students. Items C8 and C11 show moderate M values while the rest of the items are high in their M values.

51% of respondents agreed that they have had a hard time replicating reading lessons and activities like the classroom setting ( $M = 3.29$ ,  $SD = 0.674$ ). Again, the present study conducted proves [Darkwa and Antwi \(2021\)](#)'s research whereby teachers' pedagogical content knowledge is more aligned towards teaching in the classroom as compared to online learning. This includes mobile learning as well. In the classroom, teachers model, demonstrate, explain and ask—essentially scaffolds—students for them to learn and perform ([Rapanta et al., 2020](#)) in the classroom. However, this does not happen quite naturally in the online setting, especially in mobile learning situations whereby different students learn at different pace and times. Therefore, to replicate a reading process or to help students find an answer to a comprehension question or to check students' pronunciation takes time and sometimes is not practical for every student at a given time in an asynchronous learning setting. This is supported by 48% of respondents who agreed that giving one-on-one feedback to students regarding their reading lessons is very challenging via WhatsApp ( $M = 2.97$ ,  $SD = 0.819$ ).

On top of that, a grand total of 95.9% of respondents; 51% agreed and 45% strongly agreed that students are not responding or completing any activities given by them via WhatsApp ( $M = 3.40$ ;  $SD = 0.597$ ). When teachers teach face-to-face, guidance is given to the students. Teachers are in a position to read students' verbal and non-verbal cues and monitor their students; thus, giving the students the motivation as well as autonomy in learning English. Teachers encourage students to read and respond in English, which may be absent or inadequate at home. Such finding establishes that without the visibility of teachers, students tend to be demotivated in the long run ([Rahmadi, 2020](#)) and the less-proficient ones are in the risk of creating minimal engagement and a strong sense of isolation [Akyıldız and Çelik \(2021\)](#) from the outer world.

Besides, 43% of respondents agreed to the problem of students duplicating or copying their friends' work ( $M = 3.05$ ,  $SD = 0.818$ ). Akin to coming to a class for the sake of attendance, students send in completed homework to avoid being noticed or being asked many questions by their teacher. In a reading class, the involvement of parents to "help" answer the questions and the availability of classmates to offer answers defeats the purpose of learning. This is also a leading problem in difficulty in identifying students' reading mastery as it is impossible to trace students' reading skills asynchronously.

Other than that, 51% and 31% of respondents agreed and strongly agreed that they were having difficulties in identifying students' reading mastery levels for PBD in Malaysia ( $M = 3.33$ ,  $SD = 0.551$ ). This finding does not support [Maslan and Mohd Nor \(2020\)](#) who has shown that generally, there is a high feasibility in

**Table 10.** Pedagogical challenges of using WhatsApp features in teaching reading.

Num	Pedagogical Challenges	Frequency				M	Interpretation
		(SD)	(D)	(A)	(SA)		
C7	Replicating reading lessons and activities like the classroom setting	2 (2%)	9 (7%)	63 (51%)	49 (40%)	3.29	High
C8	Confusion over large number of materials	2 (2%)	31 (25%)	59 (48%)	31 (25%)	2.97	Moderate
C9	Identifying student's mastery (for PBD records)	3 (2%)	19 (15%)	63 (51%)	38 (31%)	3.11	High
C10	High expectations of teacher's online availability after working hours	-	5 (4%)	73 (59%)	45 (37%)	3.33	High
C11	One-on-one feedback	6 (5%)	25 (20%)	59 (48%)	33 (27%)	2.97	Moderate
C12	Students duplicating or copying their friend's work	4 (3%)	26 (21%)	53 (43%)	40 (33%)	3.05	High
C13	Students not responding or complete any activities	1 (1%)	4 (3%)	63 (51%)	55 (45%)	3.40	High

(SD) = Strongly Disagree, (D) = Disagree, (A) = Agree, (SA) = Strongly Agree.

conducting the PBD assessment by teachers in another district in Malaysia during the MCO. This proves that there is a difference in perspectives in conducting the PBD assessment for students, especially in ESL reading. Fundamentally, teachers are equipped to pick up on students' nonverbal cues and their learning progress. At home, teachers are not capable of observing their students' aptitudes or learning progress. Parents or older siblings may be the ones completing the younger siblings', especially those who are in primary, homework, and tasks.

Meanwhile, 59% of respondents agreed that there were high expectations from the stakeholders (parents and school management) of their online availability after working hours ( $M = 3.33$ ,  $SD = 0.551$ ). Next, from respondents' point of view, their students are confused over a large number of materials that are being delivered via WhatsApp (2.97,  $SD = 0.757$ ). The high M value between both the confusion and message flooding are correlated. As the whirlwind of materials being shared in the WhatsApp chat group increases, the possibility for the students to be confused over the large number of materials also arises. This is more so if the WhatsApp group is being shared by other subject teachers as well.



## 5. Conclusion

This research sought the opportunities and challenges, in the aspects of technical and pedagogical, on the use of WhatsApp on teaching reading for primary students in rural Malaysia. Evidence suggests that WhatsApp is advantageous as teachers are already using it and it can be used anytime and anywhere. It was also revealed that the lack of handphones and inactive students provide novel challenges in teaching and learning of reading via WhatsApp.

In light of the findings of this research, this study has led to several recommendations to the Malaysian Ministry of Education (MOE) and ESL primary and secondary school teachers who are currently teaching from home. From the ministry's perspective, it is recommended that the MOE develops a policy to encourage asynchronous learning via WhatsApp or other suitable social applications among school students. This would pave a new way of borderless learning anywhere and anytime. Additionally, from the teachers' perspective, they may innovate their teaching by using M-learning, especially WhatsApp as a part of ESL learning pedagogy in rural Malaysia post-COVID 19 pandemic.

It should also be noted that this is a time-restricted, small-scale study which only focuses on one rural area in a district in Malaysia. Thus, for future research in this area of study, it is recommended to include a few primary rural schools in different states in Malaysia to gauge the effectiveness of using WhatsApp in teaching ESL reading. In terms of language skills, this research focuses solely on ESL reading. The use of WhatsApp in teaching other skills such as listening, speaking, and writing during HBL may be considered as well. Further research may also be done in comparing these four skills that are hardest to easiest to teach during HBL. This study is important as it sheds an in-depth experience of asynchronous teaching for rural students. Therefore, this study concludes that WhatsApp is indeed a suitable application to be used for asynchronous teaching method, especially during the COVID-19 pandemic. Teachers should be aware of the opportunities and challenges of using WhatsApp and be able to use it to their advantage in their own teaching and learning.

## Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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