Utilizing WhatsApp-Driven Learning during COVID-19 Outbreak: EFL Users' Perceptions and Practices

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Abstract

The COVID-19 pandemic required an abrupt shift to online education. In Indonesia, where WhatsApp is a popular communication tool, teachers moved from face-to-face delivery to sharing teaching materials via WhatsApp. This study investigated teachers' and learners' perceptions, practices, and challenges of utilizing WhatsApp as a primary teaching and learning tool amid the COVID-19 pandemic. A mixed quantitative and qualitative method was used to identify 119 EFL teachers' and 198 learners' perceptions, practices, and challenges of using WhatsApp in East Java senior high schools. The findings revealed discrepancies in perceptions between EFL teachers and learners regarding WhatsApp's overall perceptions, ease of use, and usefulness. Results indicate that WhatsApp can be a suitable primary tool for teaching and learning, rather than being limited to its more traditional role as a supporting tool. Considerations for increasing the effectiveness of WhatsApp for teaching and learning are discussed.

Keywords: WhatsApp, EFL teacher and learner, perceptions, practices, COVID-19 outbreak

Introduction

The COVID-19 pandemic forced universities to pivot rapidly to online teaching delivery throughout the world. In Indonesia, as elsewhere, this unplanned and unprecedented disruption to society and education suddenly changed teachers' work (Bailey & Lee, 2020; Cruickshank, 2020; Kaden, 2020). This paradigm shift required teachers to quickly identify, adopt, and implement digital teaching methods that provide flexibility and meet student needs. Although digital learning and instruction have been well established, many teachers were challenged to quickly learn new technologies for e-learning and m-learning (mobile) while working remotely. Because m-learning via smartphone technology is readily available to students, as smartphones are ubiquitous, WhatsApp is a logical application choice. A powerful and popular smartphone application, WhatsApp, can text, call, and share video, audio, documents, and images (Arifani, 2019; Klopfer, et al., 2002; Susanti & Tarmumji, 2016). Studies focused on students' perceptions of WhatsApp for teaching and learning have revealed that the application of mobile phones contributes to positive attitudes for fostering learner's autonomy,

encouraging cooperation, and intensifying motivation towards specific academic goals (Arifani, 2019; Bere, 2013; Dehghan, et al., 2017; Fattah, 2015; Lu, 2008). In Malaysia, a neighbor to Indonesia, Binit Mistar and Embi (2016) and Zulkanain et al. (2020) note that WhatsApp is a virtual platform for students' needs.

Recent data from statista.com (Clement, 2020) indicates that WhatsApp is the most popular mobile messenger app worldwide, with over 2 billion active monthly users. WhatsApp enjoys a high penetration rate in Indonesia, making Indonesia one of the world's largest social media markets. Due to its popularity, instructors adopt WhatsApp for educational purposes, including second language teaching and learning contexts (Cetinkaya, & Sütçü, 2018; Dashtestani & Stojković, 2016; Hwang & Fu, 2019; Kennedy & Levy, 2008; Manca, 2000).

Although previous studies have identified WhatsApp's positive impacts in various educational contexts, Kacetl and Klimova (2019) caution that WhatsApp's role is most useful as a supporting tool for teaching and learning. Furthermore, these studies were conducted within the traditional face-to-face teaching delivery framework, where time and planning allow for effective instructional design. The pandemic created an immediate 'new-normal' environment; where administration, teachers, and learners may not have been equipped with an e-learning platform. Therefore, because of its wide use and availability, WhatsApp-driven teaching and learning developed into the 'new normal.' WhatsApp fills the immediate need and shifts from its traditional supporting role to serving as the primary teaching and learning tool. While some recent studies have examined online teaching within the 'new normal' through a Computer Assisted Language Programs (CALL) perspective (Bailey & Lee, 2020), they have not explicitly focused on WhatsApp. Therefore, this paper aims to examine EFL teachers' and learners' perceptions of utilizing WhatsApp-driven learning as a primary teaching and learning tool and uncovering their practices in an EFL setting.

Literature Review

Challenges with fully online learning

The novel coronavirus disease (COVID-19) has had an unprecedented global impact. The World Health Organization (WHO) coordinates the global efforts to manage the impacts, and it declared COVID-19 as a global pandemic on March 11, 2020 (Djalante et al., 2020). As the fourth most populous country globally, Indonesia is predicted to suffer significantly over an extended time compared to other less-populous countries (Djalante et al., 2020). The first confirmed case of COVID-19 was recorded in Indonesia on March 2, 2020. On September 9, 2020, more than 200,000 cases were confirmed, and 8,230 deaths were reported by the New York Times. To address the quick spreading Coronavirus throughout Indonesia, a Presidential Directive was issued on March 20, 2020. It described rapid and active strategies for multiple sectors, including the education sector. The directive changed teaching delivery by suspending face-to-face classes and replacing them with online learning to protect learners from possible risks of contracting COVID-19 (Djalante et al., 2020).

The urgency to move to online learning during the middle of the semester created new challenges for teachers and students. Recent studies provide insight into adopting

digital technology during the COVID-19 pandemic. For example, Dempsey and Burke (2020) present specific measures to be implemented during the COVID-19 school closure period, including 1) maintaining communication with students, parents, and teachers, and 2) maintaining access to learning materials, digital applications, or social media tools. While in agreement with these measures, Agnoletto and Queiroz (2020) address the emergency nature and the complexities of moving to a digital platform that includes teacher and student readiness to deal with online learning tools, digital fluency, and the necessity of dealing with wide-ranging emotions. Thus, due to the COVID-19 outbreak, teachers have been forced to learn digital teaching methods and deliver content to students. According to Mulenga and Marban (2020), who explored COVID-19 as a gateway to digital learning within math education, COVID-19 has become a catalyst to embrace digital devices, online resources, social media technology, and e-learning, as well as m-learning.

Mobile-Learning

Mobile technologies and mobile applications are becoming an indispensable part of learning, including foreign language learning (Gangaiamaran & Pasupathi, 2017). This trend is referred to as m-learning, which expands e-learning by promoting independent and active learning and creating educational institutions (Kuimova, et al., 2018). In a recent study, Kacetl and Klimova (2019) explored original, peer-reviewed English studies to determine whether mobile applications used in English as a foreign language are beneficial and useful. They describe key features of m-learning for supporting learning efficiency: 1) enhancing cognitive activity, 2) encouraging learner independence, 3) individualized learning, 4) collaboration with peers and teachers, and 5) increased learner motivation as described in studies by Gangaiamara and Pasupathi (2017) and Klimova (2019). Furthermore, Kim et al. (2014) claimed that mobile learning provides students with unlimited opportunities to achieve their learning goals through learning situations in real-time and authentic interaction that makes learning meaningful, useful, and different from those decontextualized traditional classrooms.

Kuimova et al. (2018) view m-learning as an essential step forward and valuable support to traditional learning. Jamaldeen et al. (2018) echoed this view as they consider mobile learning to be one of the major developing areas in education. However, their findings suggest that m-learning would be more effective as a supporting medium of learning than the primary medium. In the 16 articles included in Kacetl and Kilmova's (2019) literature review, the majority acknowledges that "m-learning is becoming a salient feature of education and should therefore be supported, albeit with caution and only as a supporting tool (p.839)." With this focus on a support tool, So (2016) examined the rapidly growing mobile instant messaging (MIM) as a support for teaching and learning in higher education and found students are more inclined to communicate using various synchronous and asynchronous communication tools such as WhatsApp, Line, Viber, WeChat, and others. So concluded that the ubiquitous nature and the unique features of these MIM apps could foster an excellent environment to support teaching and learning.

Studies of WhatsApp-driven teaching and learning

WhatsApp can support spontaneous communication, exchanging images, and sharing captured video clips in teaching and learning activities. The mobile connectivity and quick services provide an opportunity to offer new ways of teaching and learning that can ultimately improve student performance (Alshammari, et al., 2017, Basal, et al., 2016; Lai, 2015). This capability is parallel with Vygotsky's Constructivist Learning Theory, which suits WhatsApp's use. The theory aims to develop the students' social interaction and raise and share information (Mistar & Embi, 2016; Vygotsky, 1978). Indeed, the functionalities supported by WhatsApp can widen opportunities for pedagogical rethinking (Conole & Alevizou, 2010). Using the unique features offered by WhatsApp, purposeful activities can help students learn more effectively (Beetham & Sharpe, 2013).

Several studies have examined the use of WhatsApp in the ELL context, reflecting the popularity of WhatsApp for English language learning (Alqahtani, et al., 2018; Alshammair, et al., 2017, Arifani, et al., 2020; Dashtestani & Stojković, 2016; Li & Cummins, 2019; Manca, 2000; Rahaded, et al., 2020). The studies have examined WhatsApp's role in communication, engagement, and learning and the effects on specific English language skills within short experimental designs. Results are primarily positive, with some negative findings as well.

Three recent Indonesian studies addressed WhatsApp's impact on communication, engagement, and learning. Rahaded et al. (2020) conducted student learning process research with undergraduate EFL students. Although the number of participants was limited, the results indicate that WhatsApp makes learning easy and encourages problem-solving; that it helps students collaborate and improve their communication as they prepare to learn. Another Indonesian study by Manan (2017), in a university setting, found that WhatsApp's use could fully support and improve learners' communicative skills. Manan found students use the application in a relaxing manner as there are no barriers and communication errors can be minimized. Besides, Manan noted that students could increase their vocabularies via WhatsApp. The third study, conducted by Arifani (2019), indicates that WhatsApp helps EFL students improve their collocation within three months. Besides, he also noted that students showed positive attitudes towards the implementation of group works via WhatsApp. Beyond Indonesia, Alqahtani et al. (2018) designed a study to determine if Saudi Arabian EFL university students consider WhatsApp a powerful learning platform to develop and support their language learning skills. The results indicate that language students consider WhatsApp a supportive learning platform when class materials are presented with a set of objectives and outcomes explicitly focused on learning a language.

In contrast, two studies indicating the attributes of utilizing WhatsApp for effective communication, engagement, and learning, two studies provide insight into WhatsApp's concerns, especially in terms of student performance. In the first study, Mbukusa (2018) explored WhatsApp as learning in an English language class at the University of Namibia within the short implementation under the specific topic. Results indicate that WhatsApp can negatively impact tertiary students' performance, especially those who do not own smartphones. Furthermore, the results indicate a struggle to balance online activities (WhatsApp) with academic preparation as students become distracted and struggle to complete assignments on time. Next, Irfan and Dhimmar (2019) found that although WhatsApp makes communication more comfortable and faster by enhancing the sufficient flow of information, idea sharing, and connecting people easier,

results mirror those of Mbukusa's, since WhatsApp interferes with study time, results in procrastination related problems while destroying grammar and spelling.

As previously mentioned, several studies have evaluated WhatsApp's impact on specific English language skills, including reading, writing (Andujar, 2016; Awada, 2016; Caruso, et al., 2019, Lu, 2008), and vocabulary (Bensalem, 2018; Dashtestani & Stojković, 2016; Li, & Cummins, 2019) within a short-term experimental design. The studies have identified and described the attributes of using WhatsApp as a supporting teaching and language tool within the traditional teaching context. However, the immediate need to move to digital technology for teaching and learning due to the COVID-19 pandemic has created an opportunity to fill a gap as there are no studies that explicitly focus on EFL teachers and students' perceptions and practices towards the use of WhatsApp within the Indonesian context. Furthermore, this study evaluates WhatsApp as a primary teaching and learning tool during the COVID-19 outbreak within the English language teaching and learning context, rather than as the more commonly accepted use as a supplementary tool. Also, drawing upon both teachers' and learners' perspectives, practices, and challenges may lead to more robust results than examining a single perspective.

Research Questions

This study attempts to address the following research questions:

1. What are EFL teachers' and learners' perceptions towards using the WhatsApp application in English language learning?
2. Are there discrepancies between the teachers' and learners' perceptions towards WhatsApp's use in English language learning?
3. What are EFL teachers' and learners' practices in implementing WhatsApp-driven teaching and learning?

The Study

Context and participants

This mixed-methods study investigated EFL teachers' and learners' beliefs and practices in utilizing WhatsApp-driven learning at Islamic state-run senior high schools during the Covid-19 outbreak in East Java, Indonesia. Of the 89 Islamic senior high schools, 58 implemented WhatsApp-driven learning during the outbreak, and 42 of those schools participated in the study's survey, which represented more than 70% of the total schools. The teachers and learners reported using WhatsApp for their daily communication outside of the classroom context for approximately four years. The learners' ages ranged from 16 to 17 years old. In the Indonesian education system, the Islamic state senior high schools, commonly called *Madrasah Aliyah Negeri* (MAN), are managed under the Ministry of Religion. This school curriculum emphasizes many Islamic subjects, although they have the same regular subjects from the Ministry of

Education. We obtained 119 valid teachers' responses out of 138 received and 198 valid learners' responses out of 218 respondents.

Instruments

A quantitative questionnaire addressing perceptions of using WhatsApp proposed by Chen (2017) and an open-ended qualitative survey on EFL teachers' practices and challenges in implementing an online English course using WhatsApp adapted from Chen (2017) were consecutively administered.

The questionnaire has been developed using relevant theories, including reasoned action, preferences, perception, planned behavior, technology, and innovation diffusion acceptance theories (Ajzen 2005; Davis & Venkatesh 1996; Moore & Benbasat 1996; Venkatesh & Davis 2000). Some amendments were made to fit the context of this study. For example, in the first category, the ten in-class technological use indicators were omitted during the COVID 19-outbreak, all instructional activities were completed through mobile applications. An extract from the WhatsApp group was presented in the following figures.

Figure 1
WhatsApp instructional activities
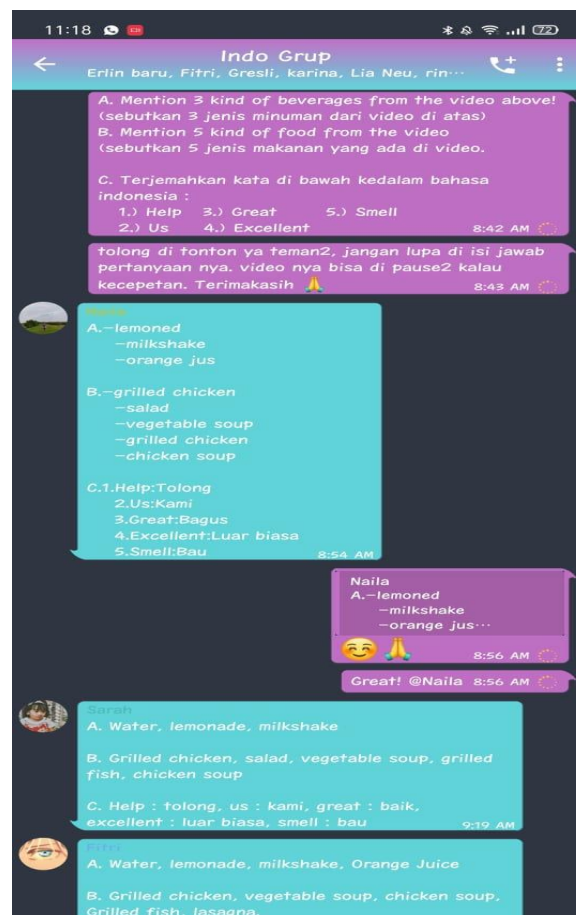
In the above example of extracts, the teacher gave learners' questions to write what they had already learned from the video sent to their WhatsApp. Modifications were also applied within the second category. In the original version, questions such as "M-learning can simplify English learning" and "M-learning makes English learning more fun" were amended into "WhatsApp-driven learning can simplify English learning" and "WhatsApp makes English learning more fun than other mobile applications." This questionnaire was reduced to 3 categories of perceptions-out of class, usefulness, and ease of use totaling 37 items, with Cronbach alphas of .927, .960, and .960. The 48 items were extrapolated to refine and rationalize the items. It was tried out to 25 EFL teachers and 50 students who were not included in the study samples. The questionnaire was translated into Indonesian, with ten questions on the participants' perceptions of WhatsApp, 17 questions on usefulness, and ten questions on ease of use. A 5-point Likert scale, ranging from ''strongly agree'' to "strongly disagree," was applied for all question items.

Data Collection and Analysis

Data were collected at the beginning of the COVID-19 outbreak from March 2020 to June 2020. During those periods, the questionnaires were sent to the 58 institutions, and each randomly selected two classes of the first grade who just began the course. The researchers invited all teachers from those schools to participate in the survey through the EFL teachers forum. At the end of the semester program, open-ended questions were administered to all participants to draw their practices and challenges in utilizing WhatsApp driven learning.

Data derived from the research participants were analyzed using descriptive statistics to identify how participants evaluated their beliefs and practices of utilizing WhatsApp-driven teaching and learning during the pandemic. An independent sample *t*-test using SPSS version 22.0 was then applied to determine whether there were any significant differences in their responses and any discrepancies between students' and teachers' beliefs and practices.

The authors' research team analyzed qualitative data from 119 EFL teachers' and 218 learners' responses to the open-ended questions. A coding table with three main categories was created based on the questionnaire's perspectives, namely (1) teachers' attempts in fostering learning via WhatsApp, (2) challenges in implementing WhatsApp for teaching, and (3) the frustration experienced in applying WhatsApp-driven teaching and learning. To establish a valid coding process, the authors applied the coding process initiated by Lin and Reinders (2017). In the coding process, Lin and Reinders (2017) suggested scrutinizing the first five EFL teachers' and learners' excerpts to identify coding themes and subcategories. The team then worked independently to interpret the coded themes to derive a valid interpretation.

To explain EFL teachers' actual online classroom teaching practices, an open-ended question to gauge teachers' practices and challenges in EFL teaching using. In this case, teachers were asked to describe their successful and unsuccessful practices, challenges, and frustrations in teaching English using WhatsApp. The reliability of this category was estimated between .96 to 1.00.

Table 1
Comparison of teachers' and students' perception of the six subcategories

Category	Subcategory	Kappa
Teachers' attempts in fostering learning via WhatsApp	1.1 Successful reports	1.00
	1.2 Unsuccessful reports	1.00
Learners' learning attempts via WhatsApp	2.1 Successful reports	.98
	2.2 Unsuccessful reports	.98
Challenge in implementing WhatsApp teaching and learning	3.1 Students' problems	.98
	3.2 Teachers' problems	.98
The frustration experienced in applying WhatsApp-driven teaching and learning	4.1 Teachers' frustration problems	.96
	4.2 Learners' frustration problems	.96

Results

Before addressing the study's research questions, a normality test using the Kolmogorov-Smirnov test was applied as the requirement for running the *t*-test. The result of the normality test yields impressive results. The results indicated that the data from the participants' perceptions were normally distributed since the obtained values .000 were above the alpha value of .05.

The first research question identified teacher and learner perceptions towards using WhatsApp as a primary learning tool.

To address the distributions of the mean scores of the two different subjects, EFL teachers' and learners' perceptions towards the use of WhatsApp-driven learning. Descriptive statistics were applied. The mean gain of the two different subjects is described below.

Table 2
Descriptive statistics

	N	Mean	Std. Deviation	Skewness	Kurtosis
Teachers' acceptance of WA	119	4.42	.71	-1.524	3.067
Teachers' acceptance of the usefulness	119	4.41	.87	-1.832	3.237
Teachers' acceptance of ease of use	119	4.29	.94	-1.551	1.913
Learners' acceptance of WA	198	3.41	1.35	-282	-1.436
Learners' acceptance of the usefulness	198	3.17	1.40	.014	-1.557
Learners' acceptance of ease of use	198	3.53	1.35	-.488	-1.224
Valid N (listwise)	119				

Table 2 reveals that EFL teachers' perception scores towards the use of WhatsApp-driven learning hold higher mean perception scores than the EFL learners' perception scores. The category of EFL teachers' Perception of WhatsApp holds the highest mean scores (4.42), followed by the WhatsApp usefulness category (4.41) and ease of use (4.29). Meanwhile, the EFL learners' acceptance of the ease of use category showed the highest mean scores (3.53) compared to the other two categories: acceptance of WhatsApp (3.41) and usefulness (3.17).

The second research question identified the discrepancies between teachers' and learners' perceptions of WhatsApp as a primary learning tool.

To identify the significant perception differences of the two participant groups, a one-sample *t*-test was applied. The results of the analysis are described below.

Table 3
Independent sample t-test

	t	df	Sig. (2-tailed)	95% Confidence Interval of the Difference	
				Lower	Upper
Teachers' Perception of WA	67.06	118	.000	4.29	4.55
Teachers' perception of usefulness	54.86	118	.000	4.25	4.57
Teachers' perception of ease of use	49.73	118	.000	4.12	4.46
Learners' Perception of WA	35.34	198	.000	3.22	3.60
Learners' perception of usefulness	31.82	198	.000	2.98	3.37
Learners' perception of ease of use	36.58	198	.000	3.34	3.72

Table 3 presents the result of the *t*-test to assess significant discrepancies in participants' perception towards the utilization of WhatsApp-driven learning between EFL teachers and learners. The results indicated a significant difference between EFL teachers' and learners' perception of the implementation of WhatsApp-based learning as the primary learning tool. Among the three categories of perception from both EFL teachers' and learners' views, the obtained significant values (p = .000) were below the alpha coefficient (p < .005).

The third research question identified the EFL teachers' and learners' practices and challenges in implementing WhatsApp-driven learning as a primary learning tool.

To address the third research question, a thematic analysis was used to explain EFL teachers' and learners' practices, challenges, and problems in applying the WhatsApp-driven learning tool in EFL instruction. The results of the qualitative analysis were presented below.

Table 4
EFL teachers' and Learners' open-ended responses

Category	Teacher (119 respondents)	Learner (198 respondents)
• Successful attempts in fostering learning via WA as a primary learning tool	• 61.15% of teachers (The teachers add videos for explaining English grammar, vocabulary tasks, and quiz. WhatsApp makes it easy to re-explain the previous topic, deliver homework, foster learners' confidence because they have no eye contact with their friends and teacher, create a video task for speaking class, and record group work presentations procedure text, to teach pronunciation and reading. Further, it provides individual drilling practice via zoom, recorded explanation, and listening practice using recording teacher voices and exercises). • Undecided teachers (0.92% of teachers)	• 46.17% of learners (Voice notes from teachers' WA help learners' comprehension, instruction, and task understanding. It can also be repeated; learners like to have direct writing and speaking practices via WA, submit writing tasks, do online recorded speaking projects, and make recorded conversation videos. They like interactive explanations and tasks using voice notes and video presentations; They like teachers' recorded voice for reading and listening tasks). • Undecided learners (0.17% of learners)

• Unsuccessful attempts in fostering learning via WA as a primary learning tool	• 37.34% of teachers (Teachers have failed to address the issues of incompatible videos/file sizes, learners' cheating issues, connection problems, to explain the extended concept of grammatical patterns; Learners' comprehension is not optimal just like in the traditional instruction). • Undecided teachers (0.59% of learners)	• 51.79% of learners (Learners feel challenging to understand teachers' explanation; it is sometimes hard to understand English teachers' pronunciation through the recorded voice notes; they do not like to receive a long word and PPT files from teachers' WA) • Undecided learners (1.97% of learners)
• Problems in implementing WA as a primary learning tool	• 67.31% of teachers (Teachers need much time to teach individual reading aloud practices, assess learners' recorded pronunciation practice needs, give timely online notes and comments, and give notes on students' online works. Video capacity sizes are sometimes incompatible with learners' mobile phones). • Undecided learners (0.45% of teachers)	• 47.21% of learners (Learners got too much homework; The teacher did not give on-time feedback to learners' tasks; teachers' interactions quality and intensity through WA are not optimum; Teachers give too much explanation; Only some students who are active in the WhatsApp session; and Teachers' PPT are sometimes to incompatible and hard to understand). • Undecided learners (0.86% of learners)
• Frustrations experienced in applying WA as a primary learning tool	• 30,52% of teachers (Teachers feel tired of commenting on learners' writing tasks. It takes time to comments on learners' speaking skills through voice notes. The written tests, cheating issues, inadequate responses in the question-answer session since only a few students are active in WA interactions are hard to handle. Not all students are ready to attend the online class on time. Sometimes they are late to open their WA, so some of them could not follow the topic, some students often copy another learner's answer in the WA class chats). • Undecided teachers (2.55% of teachers)	• 51.32% of learners (Leaners feel that they get a monotonous explanation, too many tasks, homework, and exercises; Teachers' pronunciation quality are unclear sometimes; Learners do not like to download a long reading file and read it individually; They feel hard to read a long English passage; The teachers do not monitor their comprehension and pronunciation. Learners' recorded speaking tasks are not assessed timely and comprehensively). • Undecided learners (0.61% of learners)

Table 4 illustrates the qualitative analysis from the study participants. The findings described successful, unsuccessful learning, problems, and frustrations in applying WhatsApp from teachers' and learners' perspectives. Most of the teachers, 61.15%, reported their successful attempts using WhatsApp learning in the form of adding video, explaining detailed lessons with clear examples, voice notes, and establishing learners' confidence to express their idea using voice and video calls. Meanwhile, the unsuccessful technical efforts 37.34% were reported, such as incompatible PPT sent to learners' WhatsApp, large video files, and low audio quality in teaching pronunciation practices. Conversely, from the learners' views, 46.17% asserted successful English learning from WhatsApp, including online writing talks and video-

making for speaking and project-based learning, while the remaining 51.79% disliked the monotonous online teaching, confusing PowerPoints, and receiving large files.

Regarding problems and challenges in applying WhatsApp-driven learning, 67.31% of the teachers described problems in applying WhatsApp-driven learning as a primary tool for commenting on learners' online tasks due to technical connectivity and compatibility issues. Frustrations shared by 30.52% of teacher participants included overwhelming online talks, passive learners, cheating, and low response rates. Learners' problems and challenges were varied from the teachers as 47.21% voiced concerns with a high volume of online homework and monotonous online teaching. Frustrations expressed by 51.32% of the learners included unclear pronunciation, low-quality recording, and timely teacher feedback delay.

Discussion

This study aims to address three primary research purposes focused on Indonesian senior high school teachers and learners during the coronavirus pandemic: (1) to seek EFL teachers' and learners' perceptions towards the use of WhatsApp as a primary learning tool in English language learning, (2) to examine discrepancies between the teachers' and learners' perceptions towards the use of WhatsApp application in the English language, and (3) to seek EFL teachers' and learners' practices and challenges in implementing WhatsApp-driven teaching and learning. The quantitative results revealed that teachers' and learners' perceptions varied significantly as teachers' acceptance of WhatsApp, its usefulness, and its ease of use were higher than learners' acceptance in all categories. Meanwhile, the qualitative findings revealed that success in fostering teaching and learning via WhatsApp outweighed their unsuccessful attempts to provide on-time feedback on their learners' online tasks and tests. Conversely, learners' results indicated a higher ratio of unsuccessful learning via WhatsApp than successful learning. Teachers reported more problems using WhatsApp as a primary tool than students.

Linking the variance results to pedagogical strategies requires a comprehensive assessment of each participant group's perception category. Beginning with teacher participants, acceptance of WhatsApp, as well as acceptance of its usefulness, rank highly, with ease of use ranking just below the first two categories because they are familiar with the application, its simplicity, ubiquity, and ease of use in delivering the English courses (Hwang, & Fu, 2019; Li & Cummins, 2019; Manca, 2000; Rahaded et al. 2020). Because most Indonesian schools, teachers, and students were not prepared for robust e-learning, simplicity, ubiquity, and ease of use became the best alternative during the COVID-19 pandemic (Bailey & Lee, 2020).

Shifting to the learners, the results more or less vary from the teachers as their perception of ease of use is in a top position, followed by the Perception of WhatsApp, with the perception of usefulness in a final and distant position. The variances may relate to the participants' contrasting purposes: teaching and learning. Teachers view WhatsApp from a teaching angle as they prepare online lesson plans, material, media, tasks, and tests. Conversely, EFL learners' learning expectations are different from the usual traditional classroom. The learners perceive WhatsApp as a learning tool, but it does not meet their expectations. For example, learners hope WhatsApp can enhance their understanding of course content, but the different learning practices and the high volume of online tasks

lead to frustration. Narrowing these discrepancies require harmony between WhatsApp-driven teaching and learning activities. Sharing best practices of how WhatsApp is applied in EFL instruction will merit EFL teachers to improve their teaching qualities. Regarding this idea, Bailey & Lee (2020) suggests EFL teachers who have had limited access to online learning and have no online teaching experiences work with a mentor or participate in professional development to boost the quality of online teaching and learning can use WhatsApp as an effective teaching and learning tool.

The discrepancies of qualitative responses between the participants provide additional insight into perception differences. Regarding teacher participants, responses related to successful attempts in using WhatsApp as a primary tool signify the ease of use and WhatsApp's simplicity. Teachers can efficiently deliver their teaching course, media, video, online tasks, and audio through this application. They require minimal time to upload their teaching course, activities, and discussion forum. Therefore, as long as their students can learn, understand the course, and perform tasks. Teachers perceived success from utilizing WhatsApp.

Meanwhile, the unsuccessful practices of applying WhatsApp as a primary learning tool are technical. The technical aspects involve sending large video or other types of files via WhatsApp due to file size limitations and file compatibility with learners' WhatsApp, such as PowerPoint Presentation (PPT) files from the teacher. Some learners' mobile phone could not see the table and figure from the PPT. These technical issues become obstacles in applying WhatsApp if it does not fully support video, audio, and media. Therefore, some learners could not get full information from the shared files.

Interestingly, the learners' comments regarding successful learning using WhatsApp echo their teachers in some cases. For example, the learners describe the benefits of extended learning media via video and audio to support their listening and reading comprehension, although low recording quality could compromise learning, especially pronunciation. Besides, learners express positive opinions towards the variety of materials delivered via WhatsApp, such as videotaped tasks, projects, and presentations. The learners' dominant concern with learning via WhatsApp is teacher feedback delay. These results are similar to those described in Arifani (2019), and Klopfer et al. (2002) noted the implementation of WhatsApp-based learning via audio and video files could enhance learners' learning. However, their studies were not conducted and involved online teaching and learning experience.

Moreover, Arifani (2020) reported similar results. He investigated elementary school learners' vocabulary enhancement and perception of using cartoon videos sent to their parents' WhatsApp. The findings indicated that cartoon videos with short English caption sent to the parent's WhatsApp regularly could enhance learners' incidental vocabulary learning. The findings of this study corroborate Arifani's. WhatsApp is a primary learning tool using additional video, texting, picture, and sound could facilitate learning. In this case, the optimal use of WhatsApp in L2 learning will be attained if combined with sound, text, picture, and video.

This last section explores participants' frustration in implementing WhatsApp as a primary learning tool. Teacher participants' key frustration is the challenge in assessing online writing tasks, recorded speaking videos, and reading fluency. Student cheating is also a reported frustration. Learners' principal frustration is the high-volume of online tasks. This is true since some of the teachers still rely on learners' tasks as media for checking their comprehension progress (Kulkusa-Hulme & de Los Arcos, 2011; Wang &

Tsai, 2020). Providing relevant and sufficient tasks to students is essential, but excessive learning tasks can be a boomerang for teachers to assess and create learner frustration. Therefore, balancing the harmony of teachers' and learners' learning needs in applying WhatsApp as a primary learning tool becomes the novelty of the study since other previous studies investigate WhatsApp's implementation through a single perspective. This study provides a more comprehensive perspective of applying WhatsApp from both EFL teachers' and learners' perspectives.

Limitations

There are limitations in this study. First, learner autonomy and style were not included in the evaluation factors. Therefore, we cannot conclude that learners with higher learning autonomy may perceive WhatsApp differently from our findings, although Lin & Reinders (2017) and Yıldırım (2012) argue that autonomy and online learning success are closely related to one another.

Secondly, the open-ended survey results may be biased since the participants' opinions may not reflect their actual instructional practices. A more in-depth qualitative longitudinal study is recommended to identify real-time teaching and learning practices using WhatsApp as a primary tool. Therefore, it is worth-pursuing for further researchers to examine the correlation between learners' autonomy levels and their learning effectiveness using WhatsApp as a primary learning tool.

Practical implications and Recommendation

The study results indicate that WhatsApp can be used as a primary teaching and learning tool. The application is simple, easy to use, and readily available. Teachers can share lessons that include video and audio files, PowerPoint presentations, tasks, and tests. Students enjoy the variety of materials to support their learning. Results also identify how WhatsApp can be used more effectively. For example, teachers and students express frustration with the high-volume of online tasks, tasks that create excessive work for students, and ongoing teachers' ongoing assessments. The assessment load then leads to a delay in timely student feedback. Teachers need to provide the right supporting materials balanced with targeted tasks carefully. Responding quickly with feedback is vital to avoid discouraging students.

Furthermore, teachers can reduce technical frustrations with WhatsApp by checking file size and compatibility. Per the WhatsApp webpage, the maximum file size allowed for all media (photos, videos, or voice messages) to be sent or forwarded through WhatsApp is 16 MB on all platforms. It will equal most phones from about 90 seconds to 3 minutes of video. Lastly, teachers need to ensure that their voice-recorded materials and PPT quality are sufficient to support students' comprehension.

Conclusion

This research's unique contributions are based on its rigorous mixed design, substantial sample size, and broad participation from high schools throughout East Java. The study adds explicitly to research by examining the use of WhatsApp as a primary teaching and learning tool, rather than as a support tool. WhatsApp can facilitate learners' learning by providing additional online sources such as videos, mobile dictionary, and learning activities. Teachers can explain learners' learning activities, online discussion forums, tasks, tests, and feedback more directly and straightforwardly than other learning applications such as Moodle and Google Classroom, which involve more technical and practical skills to operate. Through WhatsApp with audio, video, and texting facilities could facilitate the learning process. The study also encompasses WhatsApp-related perceptions from two participant groups: teachers and learners.

In summary, WhatsApp is a primary tool for teaching and learning can be useful if teachers do not provide too many online tasks for their students. Providing timely online feedback on their students' online tasks becomes another merit of learning. Because WhatsApp is already widely used by Indonesian teachers and students, it can be a suitable alternative for online teaching and learning. Effective practices of applying WhatsApp as a primary learning tool harmonize learners' needs and capabilities with targeted teaching materials and assessment, combined with timely feedback to support learners.

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