



# WhatsApp in emergency remote learning: The students' perception

Eka Wulandari,\* Yuyun Putri Mandasari

Nursing Department, Poltekkes Kemenkes Malang, Indonesia

The emergency remote learning due to COVID-19 pandemic and the government strategy to move the lesson into online mode make language learning technologies play an important role to help students achieving the goals of learning. WhatsApp application as one of learning media offers some benefits that can be utilized by the students and teachers to achieve this goal. This study aimed at knowing the midwifery and nursing students perspective regarding WhatsApp use as the media of English teaching and learning process of Emergency Remote Learning (ERL). This paper presented data survey towards 183 students of nursing and midwifery departments at Poltekkes Kemenkes Malang. To collect the data this study employed a questionnaire and it was designed based on the literature review and administered to the participants through class's WhatsApp Group. There were 25 items in the questionnaire and the content was conveyed the demographic data and students' perception towards the use of WhatsApp application that helped them mastering four English language skills and components as well as getting scoring and feedback. The data were presented in the percentage data and analyzed using descriptive explanation. The finding showed that students' perception on WhatsApp as learning media in English online learning in ERL context gained highly positive perception on all items. Based on this result, teachers can utilize all features on WhatsApp to design meaningful learning during this emergency remote teaching and learning period.

**Keywords:** Emergency Remote Setting, WhatsApp, Students' Perception

## OPEN ACCESS

ISSN 2503 3492 (online)

\*Correspondence:

Eka Wulandari

[ekawulan09@gmail.com](mailto:ekawulan09@gmail.com)

Received: 20th May 2021

Accepted: 28th September 2021

Published: 29th September 2021

Citation:

Wulandari, E. & Mandasari, Y. P.

(2021). WhatsApp in emergency

remote learning: The students'

perception.

*J. Eng. Educ. Society.* 6:2.

doi:10.21070/jees.v6i2.1402

## INTRODUCTION

COVID-19 was coming up with unprecedented impacts in many sectors of human life including education. The pandemic has changed the nation's schools and universities from brick-and-mortar centers of students' lives to ghost towns with right of entry restricted only to important staffs. The school closure was one of the best policy taken by the government to cut off the spread of Coronavirus and it impacted to the sudden change of learning method from face-to-face classroom moved to internet-based instruction setting. All teachers have started teaching their students through e-learning applications by uploading PDF, sending text or chat, video, or audio (Raheem & Khan, 2020; Atmojo & Nugroho, 2020). The students have to access and download all courses materials from home using mobile learning tools, such as smart phone, laptop, or personal computer. Following this policy, the English language learning for specific purposes also split its learning method to the virtual learning in the context of emergency remote setting due to Coronavirus pandemic.

According to the recent data, nationwide school closure began on March 23, 2021 and it has affected 60.2 million students and 2.3 million teachers who study or teach at 425,451 educational institutions from early childhood to higher education ([Rahiem, 2020](#)). This fast and sudden instructions from the government within 48 hours and had to be responded causing some challenges among the stakeholders of education institutions. The internet-based instruction made it possible for the students to easily access the materials provided through any platforms, but such kind changing mode during the pandemic is very unprecedented and overwhelming. ([Hodges, et al, 2020](#)). They stated that this virtual learning are in the situation of emergency or crisis and it is called as emergency remote teaching (ERT) defined as a temporary change of instructional distribution to another delivery mode as a result of crisis situations. [Rahiem \(2020\)](#) used another term, namely emergency remote learning (ERL) to illustrate the education took place during school closure, synchronous or asynchronous, and the materials were delivered in response to crisis and [Milman \(2020\)](#) called it as pandemic pedagogy. In other words, the process of online classroom was conducted in the middle of urgent situation with no prior notices and preparations of the students, teachers, institution, as well as parents. [Manfuso \(2020\)](#) argued that the terms of online learning and remote learning have been used interchangeably and it caused different perceptions during this pandemic. We surely cannot expect ERTL to be like face-to-face education, nor should we believe it to resemble the sort of well-planned and designed online instruction that many have spent years learning to provide ([Milman, 2020](#)). So, it was said that the process and outcome of learning in the context of emergency remote setting might be different from online learning designed in normal situation and well-planned preparation.

All of educational institutions have called off the traditional classes, including laboratory skill classes and clinical practices for nursing and midwifery students, and moved them to the virtual classes to cut off the spread of COVID-19. In the early year of 2020, COVID-19 case in Indonesia was determined as a national crisis situation, ESP teaching in higher education institutions is no exclusion, succeeding the national government's demand to employ an online mode of teaching. Online setting was considered to be the best choice of government policy to keep the learning process still going on even though it is in the times of pandemic. Some studies pointed out that there were lots of challenges faced by the students and teacher during remote setting due to Coronavirus disease ([Archambault & Borup, 2020](#)), but online learning became the best alternative of education setting since the students have already equipped with basic tools to access the online courses, fostered students' autonomous learning, as well as reduced the spread of COVID-19 at schools ([Firman & Rahman, 2020](#)). It was also in line with statement that E-learning had the capacity to offer and share materials in the format of e-mails, slide show, word documents, webinars, or communication through chat messages ([Raheem & Khan, 2020](#)). In the mode of internet-based instructions, it needed digital technologies or

mobile devices support, such as smart phone or laptop ([Gikas & Grant, 2013](#)) and also online learning platforms to create a virtual connection and communication ([So, 2016](#)) in order to build up students' engagement in the context of ERL.

During the pandemic of COVID-19, the selection of appropriate tool or learning media in the process of online learning in the context of ERL still found to be challenging. Teachers and students had to try and adjust to the many options of mobile learning devices that suit to the learning needs. [Ramdhan et.al \(2020\)](#) stated that there were five considerations taken by the teachers to select online learning platforms, (1) instructions; (2) content; (3) motivation; (4) interpersonal relationship; and (5) mental health. At Poltekkes Kemenkes Malang, there were some platforms used to deliver English instructions, such as Zoom, Google Meet, Google Classroom, Virtual Learning of Poltekkes (Vilep), and WhatsApp (WA). Among those popular platforms, it was needed to look into them regarding the benefits, the utilizations, and the perceptions to find out more about the strengths and drawbacks as an evaluation. Based on this, teachers were expected to be able to select proper technology and learning tool that met students' needs to help them accomplish abrupt online tasks during the pandemic.

One of the possible platforms that offered flexibilities and other advantages to support students' access in the time of crisis during Coronavirus was WhatsApp (WA) application. It was considered to be popular, familiar, and worldwide used among students ([Bouhnik & Dshen, 2014](#)). Some research found that the use of WA in the language learning significantly improve students' language skills and components. Most students reported that not only their willingness to read in English increased, but the experiences had also had a positive impact on their reading habits, resulted in more regularity and confidence ([Plana, et al, 2013](#)). [Fattah \(2015\)](#) and [Wijaya \(2018\)](#) also argued that WA provided opportunity to practice language for free, build up close relationship between teachers and students that helped them to develop reading and writing skill. A study also reported that students' perceptions on the use of WA for vocabulary learning were extremely positive and very best alternative tool to help them enhancing language components ([Wijayanti & Gunawan, 2018](#)).

Following the report on the above paragraph, [Susilawati & Suprayitno \(2020\)](#) concluded that there was an increase in online learning in the era and post-pandemic COVID-19 by using WA application. Another result also added that WA was used as a complement platform of synchronous learning mode with the use of Zoom or Google Meet and minimized the drawbacks of live streaming platforms ([Naserly, 2020](#)). Supporting those results, [Rambe & Chipunza \(2013\)](#) pointed out that WA had potential features to bridge information between educators and students. It bridged access to peer-generated resources. Increased on-task behavior, and promoted meaningful learning. According to [Prajana \(2017\)](#) WA was one of mobile phone application and web-based social network used to communicate with others, ranging from entertainment to education needs.

Shortly, WA application provided lots of beneficial features and forms to support the mobile learning method particularly in the context of ERL due to the COVID-19 pandemic with many challenges faced by stakeholders.

This application offered the students to have an opportunity to feel a sense of real connection and the basis for learning community to share knowledge both formal and informal as the substitution of face-to-face meeting. All teachers can utilize WhatsApp features such as texting/chatting, calling, sending videos, audios, documents, pictures in the process of online learning. Those features, moreover, are considered to be easier, faster, and lower in cost compared with other platforms. Some facts related to the strengths of WA application has been elaborated and many research under discussion of WA for language learning have been conducted, but there was still not enough information and recommendation in the use of this application for ESP especially in the context of ERL. It needed serious attention from higher education institutions in conducting ESP online teaching (Iswati, 2020) during this pandemic as it requires not only technical preparedness, but also most importantly the human aspect involved in it. Therefore, this study aimed to find out the students' perception on the use of WA application to support students of Nursing and Midwifery Department at Poltekkes Kemenkes Malang in the Emergency Remote Learning (ERL) in the time of COVID-19 pandemic.

## METHODS

The purpose of the study was to figure out the point of view, perspective, and preferences of a large group of nursing and midwifery students on the use of WhatsApp as the media of online instruction during the emergency remote teaching and learning due to Coronavirus, so that a survey research method was employed. Survey research is commonly used to portray opinions, attitudes, preferences, and perspective of big population of interest to the researcher (Latief, 2011). Through the survey research, the writer would catch a descriptive data of large population and objectively simple to tabulate and analyze.

The participants of this study were 183 students of Midwifery and Nursing Diploma IV at Poltekkes Kemenkes Malang participating in this survey research. There were 78 students of midwifery in the third and fourth grade and 105 students of nursing in the first grade. The participants were spread in some regions of East Java Province (Malang, Probolinggo, Pasuruan, Tulungagung, Blitar, Kediri, Nganjuk, Sidoarjo, Banyuwangi, etc). The main instrument of this research to collect the data was online questionnaire administered to the nursing and midwifery students of Diploma IV Program of Poltekkes Kemenkes Malang in the first, third, and fourth year of 2020/2021. There were 26 items of questions employed in the questionnaire and were categorized into some aspects, they were demographic data

(item 1 - 4) and students' perceptions (item 5 - 26). All items were selected and adopted from previous related research. The instrument was constructed in Indonesian language to make the participants easily understood each of items. In addition to that, most items of questionnaire were constructed in the form of closed questions (multiple choice, tick box, and linear scale) regarding time effectiveness of the participants filling out the form and easy analysis. Here is the link of the questionnaire:

<https://docs.google.com/forms/d/1qTI-9AAWcLzASo1w-GbkOOlBvu1x9IGy4uDNyrqNo1A/edit>. Data collected from the questionnaire were analyzed using percentage and description, showing the proportion of the group in the population (Latief, 2011). The proportion of data was described in the form of descriptive explanation and drew a conclusion in the last.

## RESULTS AND DISCUSSION

Previous studies found that WhatsApp application for language learning had a positive impacts among the students, not only for language components but also language skills such as writing, reading, listening, and speaking (Fattah, 2015; Plana, et al, 2013). Based on this result, this paper attempted to find out the students' perception in nursing and midwifery department towards the use of WhatsApp application and its features to deliver English language course where the remote teaching and learning process is implemented, in the event of COVID 19 emergency.

### Demographic Data

The responses of questionnaire associated with demographic data were 78 students of midwifery students in the third and fourth year and 105 students of nursing in the first year. According to the data on Figure 1 it showed that they were spread in some cities around East Java Province and most of them come from Malang, Probolinggo, Pasuruan, and Nganjuk with the total number of 10 or more students in those cities and less than 9 students in other cities, as shown in Figure 1.

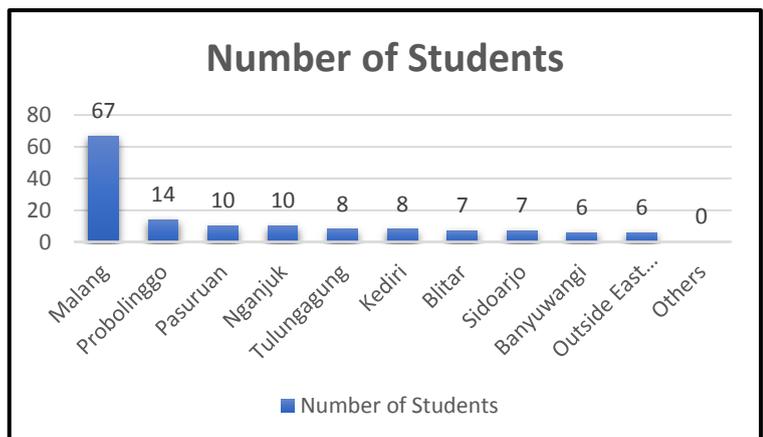


FIGURE 1 | Demographic Data of Cities

During the emergency remote learning due to Coronavirus outbreak, one of the challenges faced by the students was dealing with internet connection. It was in line with the statement that as a student joining online learning mode, internet-based-material was really difficult to adjust to since it had not been prepared through practice in advance. Students' challenge such as internet access, motivation, and involvement are always associating with the success of online learning (Hodges et al., 2020). Another survey study also found that the biggest challenge of web-based learning for nursing students (74%) was internet access (Mandasari & Wulandari, 2020). Below in Figure 2 was the result of internet access for the students of nursing and midwifery during emergency remote learning.

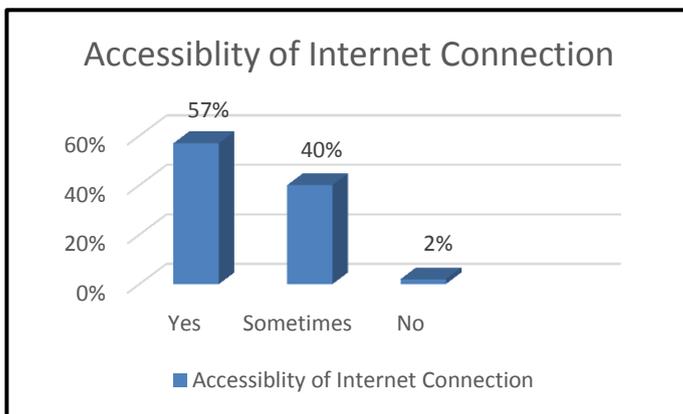


FIGURE 2 | Internet Access Data

### Students' Perception

Finding student's perception of nursing and midwifery department regarding online learning media in the times of emergency during Coronavirus outbreak was very essential. It was such kind of evaluation form for a better teaching and learning process as Smart, et al (2006) and Armstrong (2011) stated that taking students' point of view affecting some approach of learning and raising some considerations to set up online learning instruction. According to the data of questionnaire responses, 78.7% students had very high preference in the use of WhatsApp as an alternative learning tool to learn English in the time of crisis due to COVID-19. This preference was supported by the data focused on the items in figuring out nursing and midwifery students' perceptions on WhatsApp in online English language learning. It was portrayed in Table 1 as follows:

According to the Table 1 above, the result showed that all items on questionnaire regarding the students' perception on WhatsApp as online learning media alternative resulted in high or positive responses. Most of the students agreed and strongly agreed that this application was very helpful in the process of of learning English during COVID 19 time. Item number 6, students agreed (48.6%) and strongly agreed (35%) that WhaysApp could encourage their enthusiasm in English learning language in the emergency remote learning due to COVID-19. It meant that among the abrupt assignments of other courses, students were really motivated and excited to have English online learning through

WhatsApp. This finding supported Hamid (2020) that considering students' happiness and flexible space and time to join online instruction were commonly emphasized to promote students' motivation, particularly in the times of emergency or crisis during pandemic. A study revealed that WhatsApp increased students' motivation in the era and post-pandemic COVID-19 (Susilawati & Suprayitno, 2020; Awada, 2016).

Another data also showed a positive result in line with the high perception on enthusiasm in joining the online English lesson during crisis. Students were not getting bored in English language learning through WhatsApp (agree 33.9%; strongly agreed 37.7%) and actively participated in the online activities through WhatsApp features (agreed 36.1%; strongly agree 35.5%). When the students were highly motivated and enthusiastic in joining English online lesson during emergency remote learning, the level of boredom would be lower and elevated students' participation in all online activities. Brown (2001) in his book stated that motivation lead the people seem to be more involved and engaged in the activities for their own sake. There were some reasons that the students had a high encouragement and extremely excited in participating the English online setting using WhatsApp. It offered the students useful features to support education and learning in English (Hamid, 2020) particularly in the framework of remote teaching and learning in an emergency. According to the nursing and midwifery students' perception, they agreed (40.4%) and strongly agreed (41%) that WhatsApp had very effective and efficient features to support web-based English instruction during COVID-19.

Based on the table, students agreed (35.5%) and strongly agreed (41%) that WhatsApp provided them a pair and group work activities in English lesson, besides that according to the students' point of view it was very simple, effective, and efficient (agree 26.2%; strongly agree 54.6%). In relation to the data internet data package, WhatsApp needed low-cost data, and the students were really interested in this advantage (agree 18.6% and strongly agree 71.6%) and in addition to that it had adequate storage data to support online setting in the context of emergency (35% and 45.9%). Some of beneficial features offered by this application could help the students of nursing and midwifery department to have successful online English learning during COVID-19 and deal with some challenges during online setting such as (1) pairing and working collaboratively, (2) ensuring students' engagement, (3) keeping self-motivated (Sun, 2014).

This study also attempted to find the students' point of view focusing on the impact of language process with the use of WhatsApp as learning media. Some items on the questionnaire tried to reveal the nursing and midwifery students' perception regarding the use of WhatsApp that helped them understanding the English instructions, improving their English language components (grammar and vocabulary), improving English language skills, effective scoring and feedback, as well as delivering the reward during the online setting when emergency remote learning and teaching must be applied. The students (85.3%) agreed and strongly agreed that this application could help them

effectively in understanding the English instruction during the COVID-19 outbreak. In addition to that, 73.2% and 71% students absolutely agreed their vocabulary and grammar was improved in the process of English language learning in the emergency remote

context. This positive response were followed by the result of students' high perceptions on four language skills, namely listening (77%), speaking (66.1%), reading (86.3%), and writing (85.8%) during the web-based instruction in the times of crisis due to Coronavirus disease.

**TABLE 1** | Students' Perception

No.	Items of Students Perception on <i>WhatsApp</i> in Emergency Remote Learning (ERL) of COVID-19	Scale					Note
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	
6.	It encouraged students' enthusiasm to learn English during ERL	0.5%	2.2%	13.7%	<b>48.6%</b>	<b>35%</b>	
7.	The students were not getting bored learning English using <i>WhatsApp</i> during ERL	0.5%	8.2%	19.7%	<b>33.9%</b>	<b>37.7%</b>	
8.	It encouraged students to more actively participated during ERL	0.5%	7.1%	20.8%	<b>36.1%</b>	<b>35.5%</b>	
9.	It provided a pair and group work activities	0%	4.9%	18.6%	<b>35.5%</b>	<b>41%</b>	
10.	It was simple, effective, and efficient	1.6%	3.8%	13.7%	<b>26.2%</b>	<b>54.6%</b>	
12.	It helped the students to understand the English course instructions during ERL	0%	2.2%	12.6%	<b>43.2%</b>	<b>42.1%</b>	
13.	It had effective and efficient features to support English language learning during ERL	0%	3.3%	15.3%	<b>40.4%</b>	<b>41%</b>	
14.	It used low-cost internet data package	1.6%	3.3%	4.9%	<b>18.6%</b>	<b>71.6%</b>	
15.	It had enough storage data to support English language learning during ERL	0.5%	3.3%	15.3%	<b>35%</b>	<b>45.9%</b>	
16.	It encouraged students' achievement in English language learning during ERL	0.5%	3.8%	19.8%	<b>44.5%</b>	<b>31.3%</b>	
17.	It helped students to improve English vocabulary during ERL	0%	6%	22.4%	<b>37.7%</b>	<b>35.5%</b>	
18.	It helped students to improve English grammar during ERL	0.5%	6%	22.4%	<b>42.6%</b>	<b>28.4%</b>	
19.	It helped students to improve listening skill during ERL	1.1%	4.4%	17.6%	<b>37.4%</b>	<b>39.6%</b>	
20.	It helped students to improve speaking skill during ERL	1.7%	6.7%	25.6%	<b>38.9%</b>	<b>27.2%</b>	
21.	It helped students to improve reading skill during ERL	0.5%	1.6%	11.5%	<b>30.6%</b>	<b>55.7%</b>	
22.	It helped students to improve writing skill during ERL	0%	2.7%	11.5%	<b>37.4%</b>	<b>48.4%</b>	
23.	It provided simple and direct feedback or scoring during ERL	0.5%	1.6%	14.2%	<b>36.1%</b>	<b>47.5%</b>	
24.	It provided attractive reward given to students during ERL	0%	2.7%	13.2%	<b>38.5%</b>	<b>45.6%</b>	
25.	Cheating is still possible through <i>WhatsApp</i> application for online setting during ERL	2.7%	5.5%	21.3%	<b>36.6%</b>	<b>33.9%</b>	

Previous study explained that *WhatsApp* are used for main purposes: communicating with the students; nurturing the social atmosphere; creating dialogue and encouraging sharing among students; and as a learning platform (Bouhnik & Deshen, 2014). The result of this survey research on students' perception of nursing and midwifery department towards the use of *WhatsApp* in the emergency remote learning was in line with the previous statement. Positive responses of the students of nursing and midwifery department would be one of the successful indicators of English language learning in the time of emergency remote learning due to COVID-19.

Through *WhatsApp* the students experienced pair/group work, shared ideas through *WhatsApp* chat, and promote their motivation in online communication. Figuring out their perceptions towards online learning platform was very important to the teachers to evaluate their online lesson plan and minimizing some drawbacks. During COVID-19, everyone needs a quick resilience in the process of home-based learning to help students achieving learning goals, particularly encouraging students to master four language skills, listening, speaking, reading, and writing. *WhatsApp* was considered more effectively improving language skills and had positive feedback from the students in the setting of

web-based learning ([Linda & Ri'aeni, 2018](#); [Wijaya, 2018](#); [Mbukusa, 2018](#); [Wijayanti & Gunawana, 2018](#); [Soria et al. 2020](#)).

Another result of students' perception regarding the feedback or scoring and reward in English online learning showed that it also had positive response. More than 80% students said that the feedback or scoring were very effective and the reward was very attractive in English online instruction during the emergency remote learning process. In the online setting, giving effective feedback or scoring were extremely important. They were one of the replacements of face-to-face communication or interaction between teachers and students. WhatsApp provided the nursing and midwifery students with fast and effective feedback as well as interesting reward through various features, such as emoticon, voice note, text, or mixed of them. Results pointed out that the most widespread form of feedback among young learners were smileys and images and not written feedback. Upper-primary students reflected the written feedback more interesting, since they received more language-related details with this type of feedback than with a simple image ([Soria, et al. 2020](#)).

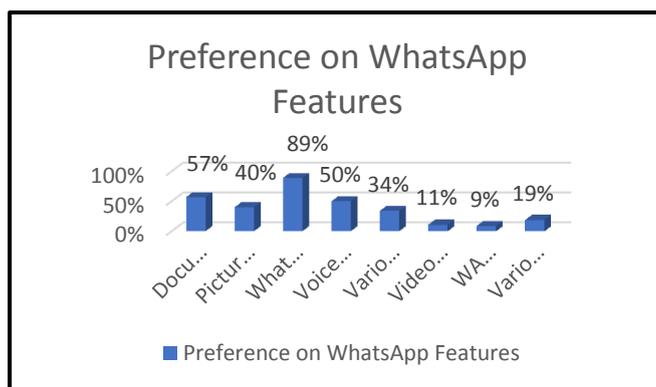


FIGURE 3 | Preference on WhatsApp Features

Regarding the preference on WhatsApp features ([Figure 3](#)), this study found that WhatsApp Group feature was the most favourite one. 40% students of nursing and midwifery stated that they liked to use WhatsApp group as one of the media for English online learning during the emergency due to COVID-19. There were some research results concerned on the use of Whatsapp Group as one the learning media alternative for online instruction. The findings showed that WhatsApp group was quite useful and preferable to help students in the process of both online and blended learning ([Amal, 2019](#); [Anhusadar, 2020](#); [Bouhnik et.al. 2014](#); [Etim et.al. 2016](#)). In line with this finding, the result of questionnaire response in association with students' perception of nursing and midwifery department in the use of WhatsApp as the learning media in the framework of remote teaching and learning in an emergency during the pandemic era.

The use of technology in online learning, especially in the times of crisis, brought not only positive responses, but it

had negative perceptions. Based on the questionnaire's response, the last data of the cheating probability through the use of WhatsApp in online learning showed high point of view. More than 50% students of nursing and midwifery students agreed and strongly agreed that cheating commonly existed. WhatsApp as one of the alternative media has both strengths and drawbacks. It depends on the teachers' innovation and creativity to design online activities minimizing the negative impact of this application during emergency remote learning ([Mandasari & Wulandari, 2020](#)).

## CONCLUSION

Emergency Remote Learning and Teaching during the COVID-19 outbreak that students had to adjust themselves to the mode of online or blended learning in a quick way came up with both positive and negative impacts as well as the utilization of technology-based learning media one of which was WhatsApp application. This study concluded that WhatsApp application on its use as one of alternative media had a high positive perception of students in nursing and midwifery department, even though it also had a few negative responses. Moving English course online could make teaching and learning accessible anywhere and at any time. After experiencing emergency remote learning and teaching for almost a year, it is a brilliant time to learn from multiple viewpoints, including students, about their perceptions.

Some of the feedbacks from this study are reinforcing the good sustainability of online instruction process for the unpredictable length of emergency learning, drilling lecturers on using blended sources with low-cost technology, supporting autonomous learning, and designing wide-variety of meaningful online learning activities using affordable technology. This study's finding cannot be taken a broad view as it was based on few number of university students from two departments. Still, we assume that this study presented students' point of views on the use of WhatsApp in emergency remote learning and teaching in several universities around the world, particularly for teachers and students with ESP during COVID-19 outbreak.

## ACKNOWLEDGEMENTS

The researchers would like to express their gratitude to the university, colleagues, lecturers, students, and other parties who had helped to complete this research on time.

## REFERENCES

- Amal, B.K. (2019). Pembelajaran Blended Learning melalui Whatsapp Group (WAG). *Prosiding Seminar Nasional Fakultas Ilmu Sosial Universitas Negeri Medan Vol. 3*, 700-702. <http://digilib.unimed.ac.id/37292/>

- Amry, A.B. (2014). The impact of Whatsapp mobile social learning on the achievement and attitudes of female students compared with face to face learning in the classroom. *European Scientific Journal*, 10(22). <https://eujournal.org/index.php/esj/article/view/3909>
- Anhusadar, La Ode. (2020). Persepsi mahasiswa PIAUD terhadap kuliah online di masa pandemi covid-19. *Journal of Islamic Early Childhood Education*. 3(01). <http://ejournal.uin-suska.ac.id/index.php/KINDERGARTEN/article/view/9609>
- Archambault, L., & Borup, J. (2020). Coming together as a research community to support educators and students in K-12 online and emergency remote settings. *Journal of Online Learning Research*, 6(1), 1-3.
- Armstrong, David A. (2011). Students' perceptions of online learning and instructional tools: A qualitative study of undergraduate students use of online tools. *The Turkish Online Journal of Educational Technology*, 10(3). <https://files.eric.ed.gov/fulltext/EJ944973.pdf>.
- Atmojo, A.E & Nugroho, A. (2020). EFL classes must go online! Teaching activities and challenges during covid-19 pandemic in Indonesia. *Register Journal*. 13(01). <https://journalregister.iainsalatiga.ac.id/index.php/register/article/view/4051/0>
- Awada, Ghada. (2016). Effect of Whatsapp on critique writing proficiency and perceptions toward learning. *Cogent Education*. (3). <http://dx.doi.org/10.1080/2331186X.2016.1264173>
- Bouhnik, D., Dshen, M., & Gan, R. (2014). WhatsApp goes to school: Mobile instant messaging between teachers and students. *Journal of Information Technology Education: Research*, 13(1), 217-231.
- Boyinbode, O. K., Agbonifo, O. C., & Ogundare, A. (2017). Supporting mobile learning with WhatsApp based on Media Richness. *Circulation in Computer Science*, 2(3), 37-46. <https://doi.org/10.22632/ccs-2017-251-89>
- Brown, H. D. (2001). *Teaching by Principles: An Interactive Approach to Language Pedagogy*. White Plains, NY: Longman.
- Etim, Paulinus J, et al. (2016). Utilization of Whatsapp and students' performance in Geography in Uyo Educational Zone, Akwa Ibom State. *International Journal of Innovation and Research in Educational Sciences*, 3(5). <https://www.ijires.org/index.php/issues?view=publication&task=show&id=194>
- Fattah, Said FESA. (2015). The effectiveness of using WhatsApp messenger as one of mobile learning techniques to develop students' writing skills. *Journal of Education and Practice*, 6(32). <https://files.eric.ed.gov/fulltext/EJ1083503.pdf>
- Firman & Rahman, S.R. (2020). Pembelajaran online di tengah pandemi covid-19. *Indonesian Journal of Educational Science (IJES)*. 2(02). <https://ojs.unsulbar.ac.id/index.php/ijes/article/view/659>
- Gikas, J., & Grant, M. M. (2013). Mobile computing devices in higher education: Student perspectives on learning with cellphones, smartphones & social media. *Internet and Higher Education*. <https://doi.org/10.1016/j.iheduc.2013.06.002>
- Hamid, Sitti M. (2020). Online digital platforms during covid-19 in EFL classes: Visual Impairment Student' Perception. *English Teaching Learning and Research Journal*. 6(2). <http://journal.uin-alauddin.ac.id/index.php/Eternal/article/view/17952>
- Hodges, C. B., Moore, S., Lockee, B. B., Trust, T., & Bond, M. A. (2020). The difference between emergency remote teaching and online learning. Retrieved from [https://er.educause.edu/articles/2020/3/thedifferencebetweenemergencyremoteteachingandonlinelearning?utm\\_source=Selligent&utm\\_medium=email&utm\\_campaign=tl\\_newsletter&utm\\_content=4720&utm\\_term=body\\_&utm\\_i=NcWN9rE9v0WAu1BSCHwDldQZyv3Hok3hCWF4XWN28kQs9%2BDV8iAh5OWfC6t5366n1t27PiSgdsEra8EKclfvz5e0v%2BJhSsIU8](https://er.educause.edu/articles/2020/3/thedifferencebetweenemergencyremoteteachingandonlinelearning?utm_source=Selligent&utm_medium=email&utm_campaign=tl_newsletter&utm_content=4720&utm_term=body_&utm_i=NcWN9rE9v0WAu1BSCHwDldQZyv3Hok3hCWF4XWN28kQs9%2BDV8iAh5OWfC6t5366n1t27PiSgdsEra8EKclfvz5e0v%2BJhSsIU8)
- Iswati, Luluk. (2020). When teaching must go on: ESP teachers' strategies and challenges during covid-19 pandemic. *Jurnal Pendidikan Bahasa Asing dan Sastra*, 5(01). <https://ojs.unm.ac.id/eralingua/article/view/16196>
- Latief, MA. (2011). *Research methods on language learning. An Introduction*. Malang: Malang University Press.
- Linda & Ri'ani, Ida. 2018. WhatsApp messenger as a mobile media to learn writing for EFL students. *Jurnal Ilmu Komunikasi Efek*. 1(2), <https://ejournal.umc.ac.id/index.php/jike/article/view/156>
- Mandasari, Y.P, & Wulandari, Eka. 2020. Online-English learning for nursing students in the times of covid 19 pandemic (perceptions and challenges in ERT context). *Prosiding Seminar Nasional Industri Bahasa 2020*. Jakarta: PNJ Press
- Manfuso, L.G. (2020). From emergency remote teaching to rigorous online learning. Retrieved from <https://edtechmagazine.com/higher/article/2020/05/emergency-remote-teaching-rigorous-online-learning-perfcon>
- Mbukusa, N.R. (2018). Perceptions of students' on the use of WhatsApp in teaching methods of English as second language at the University of Namibia. *Journal of Curriculum and Teaching*. 7(2). <https://eric.ed.gov/?id=EJ1198783>
- Milman, N. B. (2020, March 25). *Pandemic pedagogy*. Phi Delta Kappan. Retrieved from <https://kappanonline.org/pandemic-pedagogy-covid-19-online-milman/>
- Naserly, M.K. (2020). Implementasi Zoom, Google Classroom, dan Whatsapp Group dalam Mendukung Pembelajaran Daring (Online) pada Mata Kuliah Bahasa Inggris Lanjut. *Jurnal AKSARA PUBLIC*, 4(2). <https://aksarapublic.com/index.php/home/article/view/417>

- Plana, M.G.C et.al. (2013). Improving learners' reading skills through instant short messages: A sample study using Whatsapp. *World CALL*. Retrieved from [https://www.researchgate.net/publication/255718202\\_Improving\\_learners%27\\_reading\\_skills\\_through\\_instant\\_short\\_messages\\_a\\_sample\\_study\\_using\\_WhatsApp](https://www.researchgate.net/publication/255718202_Improving_learners%27_reading_skills_through_instant_short_messages_a_sample_study_using_WhatsApp)
- Prajana, Andika. (2017). Pemanfaatan aplikasi Whatsapp dalam Media pembelajaran di UIN Ar-Raniry Banda Aceh. *Jurnal Pendidikan Teknologi Informasi*. 1(2). <https://jurnal.ar-raniry.ac.id/index.php/cyberspace/article/view/1980/pdf>
- Raheem, B.R & Khan, A. (2020). The role of e-learning in covid-19 crisis. *International Journal of Crative Research Thoughts*. 8(3). [https://www.researchgate.net/publication/340999258\\_THE\\_ROLE\\_OF\\_E-LEARNING\\_IN\\_COVID-19\\_CRISIS](https://www.researchgate.net/publication/340999258_THE_ROLE_OF_E-LEARNING_IN_COVID-19_CRISIS)
- Rahiem, Maila D.H. (2020). The emergency remote learning experience of university students in Indonesia amidst the COVID-19 crisis. *International Journal of Learning, Teaching and Educational Research*. 19(6). <http://www.ijlter.org/index.php/ijlter/article/view/2368>
- Rambe, P & Chipunza, C. (2013). Using mobile devices to leverage student access to collaboratively-generated resources: A case of Whatsapp instant messaging at A South African University. *International Conference on Advanced Information and Communication Technology for Education*. Atlantis Press. [https://www.researchgate.net/publication/266645202\\_Using\\_mobile\\_devices\\_to\\_leverage\\_student\\_access\\_to\\_collaboratively-generated\\_resources\\_A\\_case\\_of\\_WhatsApp\\_instant\\_messaging\\_at\\_a\\_South\\_African\\_University/link/577d21ab08aeae3b27e2f96/download](https://www.researchgate.net/publication/266645202_Using_mobile_devices_to_leverage_student_access_to_collaboratively-generated_resources_A_case_of_WhatsApp_instant_messaging_at_a_South_African_University/link/577d21ab08aeae3b27e2f96/download)
- Ramdhani, D.F et.al. (2020). Tipologi belajar mahasiswa pada pembelajaran daring. *Digital Library UIN Sunan Gunung Djati*. Retrieved from <http://digilib.uinsgd.ac.id/30594/>
- Smart, KL & Cappel, JJ. (2006). Students' perception of online learning: A comparative study. *Journal of Information Technology Education*, (5), 201-219. <https://www.informingscience.org/Publications/243>
- So, S. (2016). Mobile instant messaging support for teaching and learning in higher education. *Internet and Higher Education*. Retrieved from <https://doi.org/10.1016/j.iheduc.2016.06.001>
- Soria, Sarra., Plana, M.G.C., & Frumuselu, Anca. (2020). Feedback and mobile instant messaging: Using WhatsApp as a feedback tool in EFL. *International Journal of Instruction*. 13(1). DOI: 10.29333/iji.2020.13151a
- [https://www.researchgate.net/publication/338066407\\_Feedback\\_and\\_Mobile\\_Instant\\_Messaging\\_Using\\_WhatsApp\\_as\\_a\\_Feedback\\_Tool\\_in\\_EFL](https://www.researchgate.net/publication/338066407_Feedback_and_Mobile_Instant_Messaging_Using_WhatsApp_as_a_Feedback_Tool_in_EFL),
- Stone, S & Logan, A. (2018). Exploring students' use of the social networking site Whatsapp to foster connectedness in the online learning experience. *Irish Journal of Technology Enhanced Learning*. 3(1). [https://www.researchgate.net/publication/324591003\\_Exploring\\_Students%27\\_Use\\_of\\_the\\_Social\\_Networking\\_Site\\_WhatsApp\\_to\\_foster\\_connectedness\\_in\\_the\\_online\\_learning\\_experience](https://www.researchgate.net/publication/324591003_Exploring_Students%27_Use_of_the_Social_Networking_Site_WhatsApp_to_foster_connectedness_in_the_online_learning_experience)
- Sun, S. Y. H. (2014). Learner perspectives on fully online language learning. *Distance Education*, 35(1), 18–42. <https://doi.org/10.1080/01587919.2014.891428>
- Susilawati, Samsul & Supriyatno, Triyo. 2020. Online learning through WhatsApp group in improving learning motivation in the era and post pandemic COVID-19. *Jurnal Pendidikan: Teori, Penelitian, dan Pengembangan*. 5(6). <http://journal.um.ac.id/index.php/jptpp/>
- Wijaya, Armeria. 2018. Students' responses toward the use of WhatsApp in learning. *Journal of Teaching & Learning English in Multicultural Contexts*. 2(1), <http://jurnal.unsil.ac.id/index.php/tlemc/article/view/489>
- Wijayanti, Anita & Gunawan, YB. 2018. Students' perceptions towards the utilization of WhatsApp for vocabulary teaching and learning. *ADJES (Ahmad Dahlan Journal of English Studies)*. 5(2). ISSN: 2477-2879. <http://dx.org/10.26555/adjes.v5i2.10462>

**Conflict of Interest Statement:** The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Copyright © 2021 Eka Wulandari & Yuyun Putri Mandasari. This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY). The use, distribution or reproduction in other forums is permitted, provided the original author(s) and the copyright owner(s) are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.