

Impact of E-Learning in Learning Mandarin in Bina Kusuma Elementary School During COVID-19

Yi Ying^{1*}, Paulina², Yorika Rovemia Mulyadani³, and Krystl Marie O. Lim⁴

^{1–3}Chinese Department, Faculty of Humanities, Bina Nusantara University
Jakarta 11480, Indonesia

⁴Department of Applied Foreign Languages, Cheng Shiu University
Kaohsiung, Taiwan

Email: ¹yi_ying@binus.edu, ²paulina138874@gmail.com, ³yoricarovemia99@gmail.com,
⁴krystl0926@gmail.com

Abstract—In the teaching and learning process, the roles of teachers and students will be balanced if there is good communication between them. However, learning methods from face-to-face to e-learning suddenly prompt the teachers to look for various alternatives to convey the material due to COVID-19 pandemic. The research analyzes the impact of COVID-19 on the learning process, especially Mandarin, in an elementary school. The research uses a descriptive-analytical method with questionnaires. The questionnaires are filled out by 34 students from the fifth grade in Bina Kusuma Elementary School, Jakarta. The research finds the positive impacts of e-learning in the school regarding Mandarin learning. First, the subject is more interesting and easier to understand. Second, students can learn the right notes and pronunciation independently. Third, using WhatsApp and Zoom can help students recall previously learned vocabulary. Fourth, students can learn new vocabulary independently. Fifth, e-learning can motivate students to learn and gain experience from new learning methods. Sixth, students can manage their time in learning, so they become more independent. Last, students can study anywhere and anytime without time and space limits. However, the weakness of e-learning is the speed of the internet. It affects the students in obtaining the provided subject by the teachers.

Index Terms—E-Learning, Learning Mandarin, Elementary School, COVID-19

I. INTRODUCTION

IN the process of teaching and learning activities, teachers do not only require to have the knowledge to teach the students but also to improve students' learning activities and achievement in learning. The

teachers should encourage the students to become creative and innovative individuals [1]. Through the teachers' learning process, they can see students' learning attitudes to accept, respond, and appreciate the learning process [2]. The factors that support the success of a learning process are students' interpersonal skills, experiences, and active participation. These factors will support the success of the learning process. However, teachers must also have a strong influence in supporting the learning process [3].

In the teaching and learning process, the roles of teachers and students will be balanced if there is good communication between them. The interaction between teachers and students is very necessary for the learning process [4]. The delivery of material using easily understood language makes the learning process run effectively [5]. However, learning methods from face-to-face to e-learning suddenly prompt the teachers to look for various alternatives to convey the material due to COVID-19.

E-learning is an education system that uses electronic applications to support teaching and learning using the internet, computer networks, and stand-alone computers. The use of the internet makes it easy for students to study at any time. Even though students and teachers use e-learning, the interaction between students and teachers is still carried out with various online learning media. E-learning is needed to improve the teaching and learning process. It is expected that students can understand better the material provided by the teachers [6].

Moreover, e-learning can improve foreign language skills in reading, listening, speaking, and writing [7]. The use of e-learning is a new learning process which can provide a new experience and convenience for

Received: Aug. 25, 2020; received in revised form: Jan. 11, 2021; accepted: Jan. 11, 2021; available online: March 08, 2021.
*Corresponding Author

students to motivate them to continue learning [8]. One of the e-learning examples is teaching and learning foreign languages by watching and sharing interesting YouTube videos [9]. The purpose of the research is to see the impact of COVID-19 on learning Mandarin in an elementary school.

II. RESEARCH METHOD

The research applies a descriptive-analytical method. The research was conducted from March to June 2020 at Bina Kusuma Elementary School, Jakarta. The researchers distribute the questionnaires to 34 students from the fifth grade. The respondents are chosen by the researchers who also teach them. Hence, they are research samples. Besides, the respondents have experienced changes in their Mandarin textbooks before e-learning is implemented. Then, they have just started to learn and have not mastered the newly learned material. It is necessary to find interesting ways to convey material during e-learning so that it can easily comprehend. The questionnaire is filled out with the guidance given by the teachers. It is done by sharing all questions in PowerPoint using Zoom. The goal is to make it easier for students to understand the questions.

III. RESULTS AND DISCUSSION

The Mandarin teachers at Bina Kusuma Elementary School are more comfortable using WhatsApp, Zoom, and YouTube. Therefore, in e-learning, they choose to use these three learning-media. From the answered questionnaire data, the research explains the elementary school level students' opinions on the effect of learning Mandarin through the WhatsApp, YouTube, and Zoom applications. The results of the analysis regarding e-learning in learning Mandarin are as follows.

A. WhatsApp

The Mandarin teachers provide the learning materials and assignments via WhatsApp to the students. The given materials and assignments are based on the Mandarin textbooks. The Mandarin teachers also record audio in the form of voice recordings. It teaches the students how to read vocabulary in the book. Then, the teachers also give the assignments via text in the WhatsApp chat. The assigned tasks are also collected there.

The teachers and students need to change the language on the mobile phone keyboard to type Mandarin characters. 简体中文 is a keyboard used for typing. Students type the character based on pinyin. Pinyin is a way of writing Mandarin. Its spelling is based on Mandarin pronunciation. The writing of pinyin

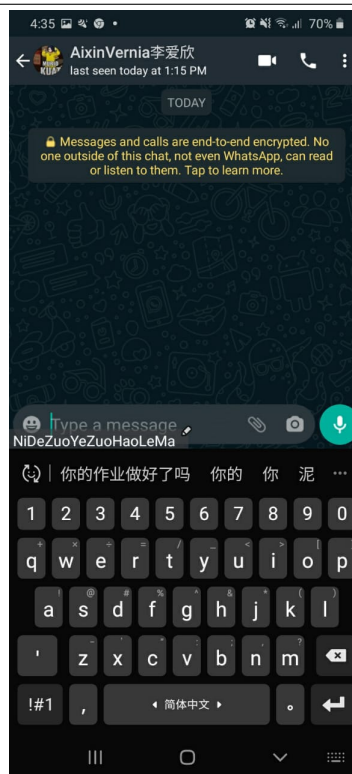


Fig. 1. How to type Mandarin characters.

is similar to the English alphabet. For example, the sentence of 你的作业做好了吗, which means "is your homework done?", in pinyin is "ni de zuo ye zuo hao le ma" (see Fig. 1). Then, the teachers deliver the assignment via WhatsApp, and the students reply in Mandarin too (see Fig. 2).

Based on the analysis result of questionnaires regarding WhatsApp, there are 14 respondents (41%) who strongly agree that learning Mandarin through WhatsApp makes it more interesting. Then, 12 respondents (35%) agree that learning Mandarin via WhatsApp makes the learning materials easier to understand. It shows the advantages of e-learning in helping students understand the presented material. The result is in line with previous research findings on e-learning in Mandarin [10]. E-learning helps students to understand learning material in Mandarin since the students can often reread the material

Moreover, 20 respondents (59%) agree that learning how to read Mandarin characters through WhatsApp helps them to learn the correct tone and pronunciation. Similarly, there are 21 respondents (62%) who mention that learning Mandarin via WhatsApp helps them to recall vocabulary that has been learned in the class. Then, the other 12 respondents (35%) think that learning Mandarin through WhatsApp makes them learn

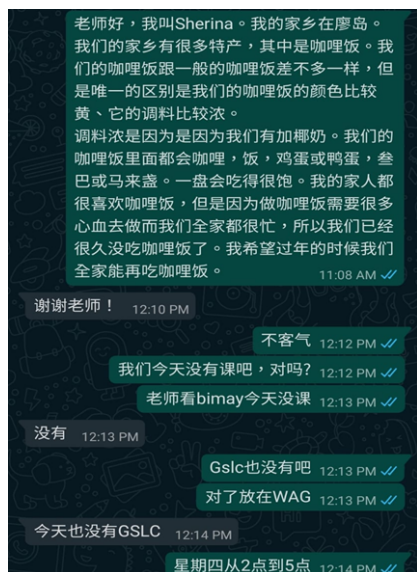


Fig. 2. The example of WhatsApp chat for Mandarin conversation assignments.



Fig. 3. Proverbs in Mandarin.
(Source: <https://youtu.be/Uu14UZ8Zsco>)

new vocabulary. The more vocabulary is mastered, the easier it is to understand and apply the language in spoken and written communication [11]. Around 9 respondents (38%) agree that learning Mandarin via WhatsApp depends on the speed of the internet to get lesson material. This statement is in line with previous research [12]. The availability of internet network speed for easy access in e-learning is very needed.

B. YouTube

The Mandarin teachers also provide the lesson and assignments through YouTube. They give the materials and assignments through video links from YouTube. The teachers have selected the videos based on the used textbooks. For example, it is proverbs in Mandarin (see Fig. 3).

Then, the teachers give the video about the story behind the proverb of 失败是成功之母 meaning “failure

is the beginning of success” (see Fig. 4). There are audio, pinyin (how to read), and English translation in this online material. The video is chosen as the source because of the studied topics. Previously, the teachers also consider the other videos on YouTube that are more interesting and animated. However, the other referred video does not provide how to read and the meanings of the words. Hence, the teachers choose the first source, as shown in Fig. 4. The given task is that the students retold the content of the video to determine the level of their understanding of that video.

The following are the analysis result of questionnaires on learning Mandarin via YouTube. Around 17 respondents (50%) agree that learning Mandarin via YouTube makes it more interesting. The result is in line previous research [13]. Elementary school students like learning with pictures and motion media. Then, 20 respondents (59%) think that learning Mandarin via YouTube makes it easier to understand, and 14 respondents (41%) mention that using YouTube helps them to learn the correct tone and pronunciation. Tone and pronunciation are very important in learning Mandarin. The accuracy of the tone and pronunciation will determine the accuracy of the conveyed information [14].

Around 14 respondents (41%) agree that learning Mandarin via YouTube helps them to recall vocabulary that has been learned in class. The less a person masters vocabulary, the more difficult it will be to communicate. A sentence cannot be made without vocabulary. However, 10 respondents (42%) disagree that learning Mandarin via YouTube can make them learn new vocabulary. They feel that learning vocabulary through YouTube is less clear and effective. Similar to WhatsApp, 9 respondents (38%) agree that learning Mandarin via YouTube depends on the speed of the internet to obtain lesson material. The result strengthens the previous research result [15]. E-learning is dependent on internet access for learning.

C. Zoom

Mandarin teachers directly explain the subject through Zoom to the students. They also communicate with the students using this application. Hence, the students can understand more clearly the content of the material and assignments. The teachers explain the subject according to the Mandarin textbooks. Figure 5 shows the example of the lesson. Meanwhile, Fig. 6 presents the learning process using Zoom.

From the students’ opinions on Zoom, it can be seen that 17 respondents (50%) agree that learning Mandarin through Zoom makes it easier to understand the lesson. Then, 14 respondents (41%) strongly



Fig. 4. The proverb of failure is the beginning of success. (Source: <https://www.youtube.com/watch?v=Wn9SB0xfmY0>)



Fig. 5. The example of teaching materials.



Fig. 6. The learning process using Zoom.

agree that learning Mandarin through Zoom is more interesting. Compared to YouTube, more respondents think that Zoom helps them to learn the correct tone and pronunciation (17 respondents or 50%). Around 19 respondents (56%) agree that learning Mandarin through Zoom makes them recall vocabulary that has been learned.

Around 15 respondents (44%) mention that they learn new vocabulary through the class in Zoom. Learning vocabulary is very important for international students who learn Mandarin as a second language. Mastery of Mandarin vocabulary can be marked by mastering aspects of sound, meaning, form, and basic usage. Similar to WhatsApp and YouTube, 22 respondents (65%) agree that learning Mandarin through Zoom requires the internet to obtain the subject.

D. Impact of E-Learning on Students in Bina Kusuma Elementary School during COVID-19

One of the e-learning benefits for students during COVID-19 is the unlimited time and place for students to access knowledge. This benefit is in line with previous research [10, 16]. The learning process through the applications can help students to learn Mandarin anytime without being limited by time. Students also think that through e-learning, they can use self-learning materials anytime. This idea is the same as the findings from previous research [15] about the characteristics of e-learning.

As many as 12 respondents (35%) agree that learning Mandarin through WhatsApp can allow them to learn without being bound by time and place. Then, 18 respondents (53%) think that learning Mandarin through WhatsApp makes them learn independently and gain new knowledge. Then, 7 respondents (21%) strongly agree that learning Mandarin via WhatsApp helps them to set their study schedule. There are 13 respondents (38%) who agree that learning Mandarin via WhatsApp helps them to set their study schedule. Around 13 respondents (38%) disagree that learning Mandarin through WhatsApp helps respondents to set their study schedule. Likewise, 1 respondent (3%) strongly disagrees that learning Mandarin through WhatsApp sets their study schedule. However, 14 respondents (41%) agree that learning Mandarin through the WhatsApp application makes them more enthusiastic.

For YouTube, there are 20 respondents (59%) who agree that learning Mandarin via YouTube makes them learn without being bound by time. Similarly, 15 respondents (44%) mention that learning Mandarin via YouTube can make them study without being bound by place. Besides, 6 respondents (18%) think that learning

Mandarin via YouTube makes them learn independently. Around 14 respondents (41%) disagree that YouTube causes them to be more enthusiastic about learning Mandarin. Moreover, 5 respondents (15%) strongly disagree that using YouTube makes them more enthusiastic about learning Mandarin.

Then, there are 18 respondents (53%) who agree that learning Mandarin through Zoom makes them more enthusiastic. Meanwhile, 5 respondents agree, and 11 respondents disagree about learning Mandarin uses Zoom. They still have problems with the internet network, so they prefer face-to-face learning.

Through e-learning, students can establish communication via the internet so that they can get more knowledge. Previous research also finds that students can learn in various ways to improve their communication skills through e-learning [16]. With e-learning through the applications that are connected to the internet, students can learn Mandarin and get information in the form of materials or assignments independently. The students will organize themselves in learning. From the students' opinions, it can be concluded that an essential component in the e-learning process is that students are required to be independent in learning with various appropriate approaches. Hence, the students can direct, motivate, and organize themselves in learning. This finding is the same as the previous research [17].

In addition, there are positive effects of e-learning on students. First, the subject is more interesting and easier to understand. Second, students can learn the right notes and pronunciation independently. Third, using WhatsApp and Zoom can help students recall previously learned vocabulary. Fourth, students learn new vocabulary. Fifth, e-learning can motivate students to learn and gain experience from new learning methods. Sixth, students can manage their time in learning, so they become more independent. Last, students can study anywhere and anytime without time and space limits. However, the weakness of e-learning is the speed of the internet. It affects the students in obtaining the provided subject by the teachers. Moreover, there should be cooperation from the school and parents to understand the conditions of the teaching and learning process during COVID-19 in the future.

IV. CONCLUSION

The research aims to see the impact of COVID-19 on Mandarin learning in Bina Kusuma Elementary School. Based on the results, the fifth-grade students of the Bina Kusuma Elementary School consider that e-learning during COVID-19 supports them in learning Mandarin. Even though they have never studied using

e-learning before, they enjoy it and are enthusiastic about learning. Using WhatsApp, YouTube, and Zoom in learning Mandarin, the teachers make the lesson more interesting, and students understand the materials more efficiently. Most students also agree that they can recall previously learned vocabulary. Not only that, but students can also learn new vocabulary. However, they find it challenging to learn new vocabulary using YouTube because their Mandarin language skills are still lacking. They cannot learn vocabulary independently just from watching YouTube videos. Moreover, e-learning requires the internet to access and acquire the materials.

The weakness of the research is the number of respondents. It is only limited to one fifth-grade class in Bina Kusuma Elementary School. If the research uses a larger number of respondents, it can compare the e-learning for the students at each level. Future research is expected to find out the e-learning process after a year of students studying at home. The result can be whether the internet network is still a problem in learning and what the solutions are carried out by the school. Besides, future researchers can search the efforts made by Mandarin teachers to make online learning materials taken from YouTube more understandable to students.

REFERENCES

- [1] Fadhilaturrehmi, "Lingkungan belajar efektif bagi siswa sekolah dasar," *Jurnal Basicedu*, vol. 1, no. 2, pp. 61–69, 2018.
- [2] M. Z. Shiddiq, M. Marijono, and N. Imsiyah, "Pengaruh pembelajaran tatap muka terhadap kemampuan afektif warga belajar pendidikan kesetaraan Paket C di PKBM Suaka Anak Negeri Jember," *Learning Community: Jurnal Pendidikan Luar Sekolah*, vol. 2, no. 1, pp. 14–16, 2018.
- [3] S. D. Kristiansen, T. Burner, B. H. Johnsen, and G. Yates, "Face-to-face promotive interaction leading to successful cooperative learning: A review study," *Cogent Education*, vol. 6, no. 1, p. 1674067, 2019.
- [4] N. S. Hanum, "The importance of classroom interaction in the teaching of reading in junior high school," in *Prosiding Seminar Nasional Mahasiswa Kerjasama Direktorat Jenderal Guru dan Tenaga Kependidikan Kemendikbud 2016*, 2017.
- [5] A. Malik, "Fungsi komunikasi antara guru dan siswa dalam meningkatkan kualitas pendidikan (Studi kasus proses belajar mengajar pada SMP Negeri 3 Sindue)," *Interaksi: Jurnal Ilmu Komunikasi*, vol. 3, no. 2, pp. 168–173, 2014.
- [6] K. Ghazali, "Sistem e-learning untuk mendukung proses belajar mengajar (Studi kasus pada Uni-

- versitas Indo Global Mandiri Palembang),” in *Seminar Nasional Riset Inovatif*, vol. 2, Bali, Indonesia, Nov. 21–22, 2014.
- [7] N. A. Soliman, “Using e-learning to develop EFL students’ language skills and activate their independent learning,” *Creative Education*, vol. 5, pp. 752–757, 2014.
- [8] Y. Hari, D. Aspali, and B. Hermawan, “Interpretasi e-learning sebagai support media untuk pembelajaran Bahasa Mandarin bagi siswa sekolah dasar,” *Jurnal Informatika*, vol. 12, no. 2, pp. 77–83, 2014.
- [9] J. M. Terantino, “Youtube for foreign languages: You have to see this video,” *Language Learning and Technology*, vol. 15, no. 1, p. 10, 2011.
- [10] Y. Ying, X. Lin, Yetty, and T. N. Mursitama, “Mobile learning based of Mandarin for college students: A case study of international department’ sophomores,” in *2017 11th International Conference on Information & Communication Technology and System (ICTS)*. Surabaya, Indonesia: IEEE, Oct. 31, 2017, pp. 281–286.
- [11] H. G. Tarigan, *Pengajaran kosakata (Edisi revisi)*. Angkasa, 2011.
- [12] D. H. Sudaryanto, “Pemanfaatan e-learning sebagai media pembelajaran mandiri,” *Swara Patra*, vol. 6, no. 4, pp. 28–39, 2016.
- [13] W. Andreani and Y. Ying, ““PowPow” interactive game in supporting English vocabulary learning for elementary students,” *Procedia Computer Science*, vol. 157, pp. 473–478, 2019.
- [14] Y. Ying, T. N. Mursitama, and N. Novianti, “Suitability of textbook for the improvement of linguistic competence in Chinese by International Relations students in Indonesia.” *Pertanika Journal of Social Sciences & Humanities*, vol. 26, no. 3, pp. 1241–1252, 2018.
- [15] N. Nursalam and F. Efendi, *Pendidikan dalam keperawatan*. Salemba Medika, 2008.
- [16] G. Rahmasari and R. Rismiati, *E-learning pembelajaran jarak jauh di SMA*. Penerbit Yrama Widya, 2013.
- [17] L. Rohmah, “Konsep e-learning dan aplikasinya pada lembaga pendidikan Islam,” *An Nur*, vol. 1, no. 1, pp. 255–270, 2011.