

Students' Perception of WhatsApp as an Effective Medium for Enhancing Listening Skill in Foreign Language Learning

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ABSTRACT

WhatsApp is a popular social network application which is used for social communication and as a learning platform. The purpose of this study is to investigate whether university students learning Mandarin as a foreign language consider WhatsApp as a useful medium that enhances and/or improves their listening skill. This is a pilot study which was carried out at the Kedah branch of Universiti Teknologi MARA (UiTM), Malaysia during the September 2017-January 2018 semester. Convenience sample was used for this study. There were only 38 undergraduate students who were learning Introductory Mandarin II during that semester. As such, all the students were invited to participate in the study. The students downloaded a series of Mandarin learning podcasts through WhatsApp throughout the study semester. At the end of the semester, a survey was administered to the students. The result shows that the students believed WhatsApp can be utilized as a useful medium for developing listening proficiency in Mandarin. The result implicates

that instructors should be encouraged to use WhatsApp as a listening tool to promote more listening exercises. It is also suggested that future research should focus on the effectiveness of WhatsApp on students' listening proficiency.

ARTICLE INFO

Article history:

Received: 17 January 2018

Accepted: 17 January 2019

Published: 28 June 2019

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Keywords: Foreign language, listening skill, Mandarin, WhatsApp

INTRODUCTION

The rapid development of the Information Communication Technology has revolutionized the educational world. The educators today are not talking about the shift from teacher-centred to student-centred learning anymore. They are now emphasizing the idea that student-centred approach should be in tandem with a blended approach that integrates technology into the teaching and learning methodology. This recent development has resulted in a new pedagogical novelty: podcasting.

The innovations in podcasting and the advancements in mobile and portable technologies including smart phones and other media players have made possible a new way of learning which is different from the traditional forms of classroom and distance education (Song & Kidd, 2008). Podcasting has been used to assist and enhance access to learning materials since 2005 throughout the world (Oloruntoba, 2006). This includes those teaching second and foreign languages. However, all of the podcasts were delivered through designated websites.

For this study, instead of delivering podcasts through a website, the Mandarin learning podcasts were delivered through a social media messenger, WhatsApp. Responses of students especially on their views towards the delivering of podcasts through WhatsApp were obtained. Although the samples in the study involved Malay students from Malaysia, the findings can be used as a comparison to the findings of similar studies which have been done or

will be carried out in the near future and will certainly fill the research gap with some additional information which may benefit foreign language teaching.

This study was carried out at the Kedah branch of Universiti Teknologi MARA (UiTM), Malaysia during the September 2017 - January 2018 semester. The university in which this study was carried out only caters for Malaysian indigenous students. The university also requires its undergraduates to study a foreign language as an elective course for a period of three semesters. Students learn a foreign language two hours a week for a duration of 14 weeks in each semester. Mandarin is one of the most popular foreign languages among the students. As the allotted teaching and learning time is merely two hours per week, lecturers generally focus on imparting the contents in as little time as possible. This has led to the sidelining of listening and speaking skills.

In the world today, almost all students have a smart phone, or have access to one (Beger & Sinha, 2012 cited in Kumar et al., 2016; Uys et al., 2012 cited in Kumar et al., 2016) also claimed that undergraduates spent a significant amount of time on social networking sites. The university in this study allows students to bring along their handphone when attending lectures. The campus has Internet and Wifi coverage as well. Furthermore, the use of social messaging applications is very common in Malaysia's university campuses. This shows that utilizing social media application as a learning tool is not impossible.

As listening skill has been considered the receptive skill which is the most common communication activity in daily life (Prasetyo et al., 2014), instructors have continuously striven to find ways to overcome the limited teaching time in improving students' communication skills especially listening skill. Previous studies have utilized WhatsApp to improve reading, speaking and writing skills (Andújar-vaca & Cruz-Martínez, 2017; Nanan, 2017; Plana et al., 2016; Salem, 2013), but there are no known research on using the application to improve listening skill. Thus, this novel study was carried out using podcast-based learning through WhatsApp to improve listening skill. In this paper, we discuss our findings pertaining to the views of the students regarding the use of WhatsApp as a useful medium for developing listening proficiency. It is hoped that the results of this study will serve as an informative reference for further development of podcast-based learning.

LITERATURE REVIEW

Podcast is a tool that is used in Web2.0 (Taylor & Clark, 2010). It is a series of audio and/or video files that can be uploaded on designated websites, and users can access and download these podcasts onto their personal computers, mobile phones, or other portable devices. Podcasts are usually updated on a regular basis and distributed in "push and pull" mode or via audio/video files feeds - Real Simple Syndication (RSS) (Barlow, 2008).

According to Côté and Allahar (2010), podcast is a good tool that can be used to reinforce students' learning. Students can download and utilize the podcasts at anytime and anywhere. As a teaching tool, podcast allows teachers to provide the learning materials through audio/video files that students can play on their portable and mobile devices.

The use of podcast has also attracted the attention of second and foreign language instructors. Podcasts have been adopted in their language learning classrooms to promote better language skills, such as pronunciation (Ducate & Lomicka, 2009), oral and aural skills (Abdous et al., 2009; Chan et al., 2011) and listening (O'Bryan & Hegelheimer, 2007; Tan et al., 2013). Although these projects have generally met with positive reactions, the podcasts did not reach the users as quickly as possible. This happens if the students do not subscribe to RSS feeds or they did not follow the subscription instructions correctly. The users, therefore, have to access the website then download the podcast onto their devices. With the rapid development of Internet and mobile technologies, we believe that there are other mediums such as WhatsApp which are able to deliver podcasts to the users more quickly, without distribution in "push and pull" mode or via RSS feed.

WhatsApp is one of the commonly used social network applications especially for social communication. It was incorporated in 2009 (Wikipedia.com), emerging a few years later than podcast. It is a cross-

platform instant messaging application for smartphones. It enables users, both individuals and groups to send and receive location information, images, video, audio and text messages in real-time at no cost. Given the availability of WhatsApp across multiple mobile platforms, it provides educators with an excellent opportunity to adopt it for educational usage. In second/foreign language teaching and learning, WhatsApp was used to improve oral skills (Andújar-vaca & Cruz-Martínez, 2017; Nanan, 2017), reading (Plana et al., 2016), and writing (Salem, 2013). All the aforementioned studies reported significant improvement in results except Salem's study which showed contradicting result. Obviously, WhatsApp is not only used for social communication, but is also suitable as a learning platform. Since WhatsApp is a relatively new technology, further investigations to explore the effectiveness of its application in language teaching and learning should be conducted.

METHODS

Participants

Convenience sample was used for this study. There were only 38 undergraduate students who were learning Introductory Mandarin II at the Kedah branch of Universiti Teknologi MARA (UiTM) during the September 2017-January 2018 semester. As a quantitative survey study exploring students' general view of using WhatsApp to deliver podcasts was to be carried out, all the students were invited to participate in the study.

UiTM is a university which only caters for indigenous students in Malaysia. The students in this university are required to learn a foreign language as a compulsory elective to meet the university's foreign language requirement. Besides Mandarin, Arabic, French, German, Italian, Korean, and Japanese are offered to the students. The assessments of the foreign language course are the same for every language which include role play, simulation, listening and writing tests. The Mandarin course consists of three levels (Levels One, Two and Three). Each level consumes two hours per week per semester. The students learn Mandarin through "Hanyu Pinyin" (Romanised Chinese) but not Chinese characters. They learn very limited Chinese characters at each level.

During the study, only one class of 38 students were learning Introductory Mandarin II in UiTM Kedah branch. They were chosen as participants as they had experienced listening to Mandarin podcasts through a designated website (<http://uitmkedahbmd401.pbworks.com/>) while they were studying Introductory Mandarin I in the previous semester. Before studying in the university, the students had learnt English in school as a second language for twelve years. English is the medium of instruction of the university.

Instrument and Data Analysis

For this study, the researchers designed audio Mandarin podcasts with contents based on the syllabus. The podcast series included new vocabulary and phrases, short

dialogues, and listening exercises. The new vocabulary and phrases were taken from the syllabus word and phrases list, the short dialogues were taken from the text book, and the listening exercises were prepared by the researchers and the instructor who recorded all the contents into audio files as podcasts. Thus, 12 podcasts were developed and were released from time to time throughout the semester via the WhatsApp group of the students. Each podcast started with a short snippet of Chinese traditional music which was then followed by the content which lasted between five to seven minutes. The podcast concluded with a short snippet of Chinese traditional music as well. The students can listen to the podcasts through WhatsApp at any time and at any place at their convenience. Indirectly, mobile learning was promoted.

The instrument used in this survey was a questionnaire that consisted of three sections. Section A solicited demographic information of the students. The demographic information collected were gender, age and race. Section B comprised items regarding the students' view on using WhatsApp as their Mandarin podcast medium. Items in section B which used a 5-point Likert scale of "strongly disagree" to "strongly agree", had a moderate Cronbach alpha score of 0.60, and was developed by the authors based on the questionnaire on the perception of students regarding accessing Mandarin podcast through a designated website (Tan et al., 2013). There were 10 items in total whereby 4 of the items carried negative descriptions (see Appendix A).

The questionnaire had undergone expert judgement to determine the content validity of the questionnaire. The questionnaire was checked by two Mandarin lecturers from another branch campus. They were asked to carefully review the items in the questionnaire. Any ambiguity or unsuitable content was subsequently corrected. Section C consisted of three structured items (1. Do you have WhatsApp in your handphone? A: Yes, B: No; 2. How do you want to practise your listening? A: Podcast, B: CD attached in the text book; 3. Which medium do you prefer to use for listening to your podcasts? A: Website, B: WhatsApp), and an open-ended item (Did WhatsApp assist you in improving your listening in Mandarin? Why do you say so?). Section C was included to gain more explanations to the quantitative data. The questionnaire was administered to the 38 students one week after their listening test.

For the analysis of the demographic data, frequency and percentages were used; whereas for the description of items in the questionnaire, mean scores, frequency, percentages and standard deviation of descriptive statistics, and sample errors of means of inferential statistics were employed to describe the students' perception of using WhatsApp as a medium for Mandarin podcasts.

As for the structured items and open-ended item in section C, the students' answers and/or views were analysed through persistent reading and rereading of the transcripts, a method suggested by Ary et al. (2006). The answers and/or views

were categorized into emerging themes and were cited and identified by the students' respective codes. These qualitative data were used to support and give meaning to the quantitative data analysis, and for systematic analysis and presentation, each student was coded S1, S2, S3...S38, respectively.

FINDINGS AND DISCUSSION

The findings are presented in three sections. First, the demographic data are presented followed by the discussions on whether WhatsApp can function as a medium for Mandarin podcasts that facilitate listening proficiency in Mandarin. Lastly is the discussion about the findings. Three themes emerged from the qualitative data analysis: (1) acceptance of WhatsApp as the medium of Mandarin podcasts; (2) improvement in language skills; and (3) mobility of WhatsApp. These themes are discussed accordingly in the sub-sections.

Demographic Data

During the study duration, the Introductory Mandarin II course was offered to only one class. The entire class with 38 students participated in the study of which 35 (92.1%) were female and 3 were male (7.9%). The data did not represent the gender distribution in this university which was around 70% female and around 30% for male. However, it shows that Mandarin is gaining popularity mostly among female students. Most of the male students prefer other foreign languages such as Arabic. All these 38 students were Malays aged 21. Almost half of them (18, 47.3%) were students from the Faculty of

Information Management, 13 (34.2%) were from the Faculty of Administrative Science and Policy Studies, and the remaining 4 students (10.5%) were from the Faculty of Accounting.

Suitability of WhatsApp as a Podcast Medium

From the responses of the three structured items, it was found that among the 38 participants in this study, all of them (100%) had the WhatsApp messenger in their smart phone. None of them preferred practising listening using the CD attached in their textbook, but all participants opted to listen to the podcasts instead.

All participants (100%) also chose to listen to the podcasts through WhatsApp rather than from a website. These data show that WhatsApp is a popular messenger among the students: they prefer using it to listen to the podcasts compared to the CD, as "to play the CD, I need to use CD-ROM to play it, and the content is continuously playing until it ends" (S23).

Some of the reasons given by the participants who preferred listening to the podcasts through WhatsApp rather than a website are as follows:

(1) Using WhatsApp is more effective (S1, S33) as podcasts are delivered faster (S23)

(2) Using WhatsApp is easy (S14, S17) as it is unnecessary to download but just save/keep the podcasts in the phone/WhatsApp (S17, S30) and listen to them directly at anytime (S9, S30)

(3) Using WhatsApp means never missing the podcasts as I read my messages many times a day”(S2, S10, S34)

The result shows that WhatsApp not only functions as a social media, but it is also a suitable medium to deliver podcasts due to its user friendly functions.

Acceptance of WhatsApp as the Medium of Mandarin Podcasts

As shown in Table 1, items 1 and 2 are positive items; whereas items 3, 4, 9, and 10 are items with negative descriptions (see Appendix 1). Though the mean scores for items 1 and 2 did not reach 4 (3.97 and 3.95 respectively), the total percentage of students who agreed and strongly agreed exceeded 70% (71% and 73.7% respectively). The students in this study show strong acceptance for the use of WhatsApp as a medium of their Mandarin podcasts as 73.7% of the students liked listening to the podcasts through WhatsApp. It was found that 71% of the students listened to all the podcasts released by their lecturer.

In addition, all the mean scores for items 3, 4, 9 and 10 were below 2.52. The total percentage of students who agreed and strongly agreed was below 15.8% which shows that majority of the students disagreed with the negative descriptions. In other words, it reveals that majority of the students willingly listened to the podcasts through WhatsApp. They felt that it was not burdensome for them to listen to the podcasts through WhatsApp. Listening to podcasts via the application was not a waste of time, and neither was it in vain too.

Improvement in Language Skills

In terms of improving language skills, as shown in Table 2, the mean scores for all the 4 items reached 4.00 and the total percentage of students who agreed and strongly agreed exceeded 71% for all items. The students in this study expressed the view that WhatsApp was a useful podcast tool for practising listening in Mandarin. It was found that 86.8% believed that it could improve their listening skill (mean score = 4.11) while

Table 1

Students' acceptance of WhatsApp as medium for Mandarin podcast

Item	Strongly disagree		Disagree		Slightly agree		Agree		Strongly agree		M	SD	SE _{x̄}
	f	%	f	%	f	%	f	%	f	%			
1	-	-	1	2.6	10	26.3	16	42.1	11	28.9	3.97	0.82	0.13
2	2	5.3	8	21.1	8	21.1	18	47.4	10	26.3	3.95	0.84	0.14
3	5	13.2	16	42.1	11	28.9	4	10.5	2	5.3	2.52	1.03	0.17
4	11	28.9	20	52.6	5	13.2	1	2.6	1	2.6	1.97	0.88	0.14
9	11	28.9	16	42.1	9	23.7	2	5.3	2	5.3	2.11	1.01	0.17
10	12	31.6	18	47.4	6	15.8	1	2.6	1	2.6	1.97	0.91	0.15

Table 2

Students' view of WhatsApp as medium for Mandarin podcast in improving language skills

Item	Strongly disagree		Disagree		Slightly agree		Agree		Strongly agree		M	SD	SE _x
	f	%	f	%	f	%	f	%	f	%			
5	-	-	1	2.6	10	26.3	16	42.1	11	28.9	4.11	0.70	0.12
6	-	-	1	2.6	4	10.5	23	60.5	10	26.3	4.11	0.70	0.12
7	-	-	-	-	5	13.2	16	42.1	17	44.7	4.32	0.71	0.12
8	-	-	-	-	10	26.3	18	47.4	10	26.3	4.00	0.74	0.12

71% of the students agreed that listening to podcasts through WhatsApp helped them to remember the words and phrases better (mean score = 4.11). Besides improving listening skill, 73.7% of the students also attested that listening to podcasts through WhatsApp improved their speaking skill (mean score = 4.00) too. Moreover, 86.8% of the students agreed that doing so helped them to improve their pronunciation (mean score = 4.32).

From the qualitative data gathered, it was found that students liked listening to podcasts via WhatsApp as it “can increase my Mandarin skills” (S21). This view is supported by other students, S4, S20, S27 and S29, for instance, stated that “Mandarin podcast help me to learn Mandarin better”, and “to improve my Mandarin”. S19 further explained how the podcasts could improve language skills: “I listen repeatedly and pronounce repeatedly the new words, I am sure my pronunciation is quite OK with the practice”.

Besides the participants mentioned above, many other students also revealed in the open-ended item how listening to

podcasts through WhatsApp benefited them in terms of improving their language skills:

- (1) Help me a lot to practise (S8)
- (2) Help me to memorise (S24)
- (3) Help me to remember the meaning of the word (S18)
- (4) I understand better because I hear it repeatedly at any time (S22)
- (5) Help me to listen to the pronunciation clearly (S31)
- (6) Help me to improve pronunciation and do exercises (S11)
- (7) Can revise pronunciation at any time (S16)
- (8) Have more listening exercises (S6)

Mobility of WhatsApp

From the qualitative data gathered, it was found that students not only revealed how the Mandarin podcasts through WhatsApp improved their language skills, but they also reiterated in the open-ended item that the mobility of WhatsApp enabled them to practise listening at any time (S9, S25), and at any place (S19). In addition, they repeatedly practised pronunciation anywhere and anytime too (S8, 16, S22).

As S22 stated, “I understand better because I repeat it at any time”. In short, one of the reasons that students like to listen to Mandarin, and practise their listening skill is due to the mobility of WhatsApp.

As mentioned earlier, the Mandarin class is taught for only two hours per week, so specific listening practices are frequently neglected. Delivering the lesson content is always the main concern of the instructors. Generally, listening practices take place mainly during reading and speaking activities in the classroom such as listening to the instructor reading aloud, participating in reading drills, carrying out speaking practices among students and listening to the CD after class. Thus, the lack of listening practices have resulted in poor scores in the listening test of some of students.

Although podcasts can be delivered through a designated website, it is easier and more convenient to use WhatsApp for the instructor and students. The instructor does not need to look for or design a website for the purpose. The students also do not need to create a username and password to log in to the website. In addition, if the students do not subscribe to the RSS feed, or do not follow the subscription instructions correctly, they will not get the podcast immediately once it is uploaded by the instructor. Moreover, some students may also forget to enter the website to “pull” the podcasts. As a result, it may reduce the opportunity for listening practices.

On the contrary, by using WhatsApp, it can avoid all the problems. The instructor

just needs to record the podcasts directly on the phone and then uploads them to the WhatsApp group. As students will be notified automatically, they can easily practise listening with just a touch of their finger. In this way, students are encouraged to improve their listening skills via listening practices and exercises found in the podcasts.

Discussion

The findings of this study show that most of the students (73.7%) liked to use WhatsApp for listening practice, and 71% of the students listened to all the podcasts released by their lecturer. They reported that WhatsApp was a suitable, effective, fast and easy to use medium to deliver the podcasts to them. More importantly, they believed that WhatsApp offered them opportunities for listening improvement. This finding is similar to the findings of other recent studies which also aimed to gauge the perception of learners in using WhatsApp for learning second or foreign languages (e.g. Hamad, 2017; Kumar et al., 2016; Wijaya, 2018; Yavuz, 2016). Majority of the students of all these previous studies showed positive response in using WhatsApp. They believed that they would be able to improve their listening skill through WhatsApp.

However, some students did not respond positively to the use of WhatsApp. For this study, 26.3% - 29.0% of students indicated that they disagreed that they liked using WhatsApp for listening practices. The reasons why these students did not like to use WhatsApp for listening practices remain unknown as it was not the focus

of the study and the previous studies. It may be due to the reasons such as they lack motivation and enthusiasm in learning the target language. This is because they had to learn the language to fulfil their course requirement, and they did not care much whether they could listen/perform well in the language. Perhaps they viewed listening practice via WhatsApp as extra workload which burdened them. This to enhance the students' listening skill, besides employing any medium, the students' willingness, readiness, attitude and motivation are important aspects needed to be strengthened too. The lack of students' commitment to effective participation is the greatest challenge for the effective use of WhatsApp for learning purposes.

CONCLUSION

WhatsApp for listening practices helps to overcome the time constraints of the traditional classroom environment. In addition, students can listen to the podcasts as many times as they like, anywhere, anytime. Listening to drills, exercises and practices through podcasts via WhatsApp provides enrichment and remedial activities to the students. These will enhance especially those who always think that their pronunciation is poor, and their listening skill is weak. To ensure the students achieve these benefits, teachers need to carefully plan the podcasts/listening projects that utilise WhatsApp as the listening platform. They should have an outline and inform students regarding the objectives of the podcasts and the intended listening outcomes. Besides, teachers are

encouraged to create a mechanism to check whether their students actually listen to the podcasts via WhatsApp.

This study has some limitations. The first limitation is that this study focused on students from the Kedah branch of Universiti Teknologi MARA. The second is that this study only gauged the positive perception of students towards the application of WhatsApp as a listening medium.

As for the recommendations, it is suggested that future studies focus on the unwillingness of students in using WhatsApp as a listening medium, and also the correlation between using WhatsApp for listening and listening performance to show reliable proof regarding the effectiveness of using social media applications in teaching and learning.

ACKNOWLEDGEMENT

The study reported in this article was carried out at the Kedah branch of Universiti Teknologi MARA. The authors wish to thank the university and the Mandarin class students who were involved in the study. Last but not least, special thanks to Mandarin instructors who helped in the recording of the Mandarin podcasts.

REFERENCES

- Abdous, M., Camarena, M. M., & Facer, B. R. (2009). MALL technology: Use of academic podcasting in the foreign language classroom. *ReCALL*, 21(1), 76-95. <http://dx.doi.org/10.1017/S0958344009000020>

- Andújar-vaca, A., Cruz-Martínez, M.-S. (2017). Mobile instant messaging: Whatsapp and its potential to develop oral skills. *Media Education Research Journal*, 15(50), 43-52.
- Ary, D., Jacobs, L. C., Razavieh, A., & Sorensen, C. (2006). *Introduction to research in education* (7th ed.). Belmont, USA: Thomson.
- Barlow, T. (2008). Web 2.0: Creating a classroom without walls. Teaching Science. *The Journal of the Australian Science Teachers Association*, 54(1), 46-48.
- Chan, W. M., Chi, S. W., Chin, K. N., & Lin, C. Y. (2011). Students' perceptions of and attitudes towards podcast-based learning - A comparison of two language podcast projects. *Electronic Journal of Foreign Language Teaching*, Singapore, 8(1), 312-315.
- Côté, J., & Allahar, A. (2010). *Lowering higher education: The rise of corporate universities and the fall of liberal education*. Toronto, Canada: University of Toronto Press Incorporated.
- Ducate, L., & Lomicka, L. (2009). Podcasting: An effective tool for honing language students' pronunciation? *Language Learning & Technology*, 13(3), 66-86.
- Hamad, M. M. (2017). Using WhatsApp to enhance students' learning of English language "Experience to share". *Higher Education Studies*, 7(4), 74-87.
- Kumar, V. S., Lian, T. Y., & Vasudevan, H. (2016). UNiKL RCMP undergraduates' perception on using Whatsapp as a tool for Mandarin Language teaching and learning. *Language Education and Civilisation International Conference (LECIC)*, Ipoh, Malaysia. Retrieved December 18, 2017 from https://www.researchgate.net/profile/Vishalini_Selva_Kumar/publication/305137963
- Nanan, A. M. (2017). WhatsApp mobile tool in second language learning. *Indonesian EFL Journal*, 3(1), 97-103.
- O'Bryan, A., & Hegelheimer, V. (2007). Integrating CALL into the classroom: The role of podcasting in an ESL listening strategies course. *ReCALL*, 19(2), 162-180. <http://dx.doi.org/10.1017/S0958344007000523>
- Oloruntoba, R. (2006). Mobile learning environments: A conceptual overview. In A. Brown (Ed.), *Learning on the Move: Proceedings of the Online Learning and Teaching Conference 2006*, Queensland, Brisbane, Australia.
- Plana, M. G. C., Escofet, M. I. G., Figueras, I. T., Gimeno, A., Appel, C., & Hopkins, J. (2016). Improving learners' reading skills through instant short messages: A sample study using WhatsApp. In A. Gimeno-sanz, M. Levy, F. Blin, & D. Barr (Eds.), *WorldCALL: Sustainability and computer-assisted language learning* (pp. 266-284). London, England: Bloomsbury Academic.
- Prasetyo, M. D., Vianty, M., & Jaya, H. P. (2014). Using podcast to improve students' listening comprehension on descriptive test. *Journal of English Literacy*, 1(2), 93-99.
- Salem, A. A. M. (2013). The impact of technology (BBM and WhatsApp applications) on English linguistics in Kuwait. *International Journal of Applied Linguistics & English Literature*, 2(4), 64-69.
- Song, H., & Kidd, T. T. (2008) Multimedia integration in active online learning environments. In A. Cartelli & M. Palma (Eds.), *Encyclopedia of information communication technology* (pp. 569-575). Hershey, USA: Information Science Reference, IGI Global.
- Tan, T. G., Lim, T. H., & Goh, C. S. (2013). The relationship between students' satisfaction in using podcast and their achievement. *2nd UPAL International Conference on Languages*, UiTM Pulau Pinang, Pulau Pinang, Malaysia. Retrieved December 18, 2017, from https://www.researchgate.net/publication/254864278_The_relationship_between_students'_satisfaction_in_using_podcast_and_their_achievement

- Taylor, L., & Clark, S. (2010). Educational design of short, audio-only podcasts: The teacher and student experience. *Australasian Journal of Educational Technology*, 26(3), 386-399.
- Yavuz, F. (2016). Do smartphones spur or deter learning: A WhatsApp case study. *International Journal of Educational Sciences*, 15(3), 408-415.
- Wijaya, A. (2018). Students' responses toward the use of WhatsApp in learning. *Journal of Teaching & Learning English in Multicultural Contexts*, 2(1), 46-55.

APPENDIX

Appendix A

Item	Description
1.	I listen to all the podcasts through our Whatsapp group.
2.	I like to listen to the podcast through our Whatsapp group.
3.	I force myself to listen to the podcast through our Whatsapp group.
4.	I feel that listening to the podcast through our Whatsapp group is burdensome.
5.	I think that listening to the podcast through our Whatsapp group helped me to remember the words and phrases better.
6.	I feel that listening to the podcast through our Whatsapp group helped improve my listening skill.
7.	I feel that listening to the podcast through our Whatsapp group helped improve my pronunciation.
8.	I feel that listening to the podcast through our Whatsapp group helped improve my speaking skill.
9.	I feel that listening to the podcast through our Whatsapp group is in vain as I still need to read the words, sentence patterns, and dialogues in the book.
10.	I feel that listening to the podcast through our Whatsapp group is wasting time as the lecturer will repeat it in class too.

