Social networks as instructional tools beyond a classroom

Sara Asmawati Shariffuddin *, Wan Raihan Wan Shaaidi, Shahirah Mohd Hashim

Centre of Preparatory and General Studies, TATIUC, 24000 Kemaman, Terengganu, Malaysia

ARTICLE INFO

Article history:
Received 20 December 2016
Received in revised form 25 September 2017
Accepted 18 October 2017

Keywords:
Whatsapp
English language learning
Instructional tool
Social network
English language teaching

ABSTRACT

English teachers always seek new and interesting approaches to teach English which are relevant to today's digital native students. WhatsApp Application (WA) has been suggested by many to be used in ESL classrooms. Therefore, this paper reports a study on the use of WA features (text, image and video) as an instructional tool beyond a regular classroom, students' perception towards the use of WA in teaching and the benefits and drawbacks of using WA in promoting English language learning. A mix-method research design was utilized to obtain detailed information about the use of WA out of the confined classroom. The instruments include observations on WA exchanged messages, semi-structured interviews and survey questionnaire. The outcomes of the study suggest an instructional tool which can be used “in the real world” and help lecturers to understand the prospective benefits of WA to enhance the teaching and learning process.

© 2017 The Authors. Published by IASE. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).

1. Introduction

With 500 million users worldwide since its first launched in 2009, WhatsApp a mobile instant messaging application (WA) has managed to replace Short Messaging Service (SMS) among mobile users. WA has facilitated for easier and faster communication and distribution of multimedia messages among users. WA offers real-time texting or communication including the ease of sharing information e.g. contact list or media content e.g. audio, video files, images, location data, etc. (Ahad and Lim, 2014). Through WA messenger, communication via mobile phone has become faster, cheaper and easier. It is considered extremely cheaper compare to SMS as no global chargers have been incurred for an individual who wants to chat with family and friends overseas at any given time.

WA embedded features offer powerful learning and teaching tools (Thang et al., 2016) that trigger anticipation from students and teachers alike through its contents (either video or photos). This may provide better results of teaching effectiveness compared to traditional teaching methods. It creates a healthy environment regardless of time, place and pace which lead to self-study autonomous learning where language is always described as a self-study subject (Ibrahim et al., 2015). Besides that, WA messenger can also become a platform for students and teachers to design ideas particularly relevant additional learning materials and allow the students to build their own communities to collaborate with each other. Moreover, this application can assist language teachers to reach out to students in order to understand and teach them better. This has been supported by a research carried out by Ibrahim et al. (2015) who stated that social networks serve as a platform for teacher-student and student-student communication inside and outside the classroom.

In recent year, with the growing of WA use, few investigations have been carried out on utilizing WA as an instructional tool to promote English language teaching and learning at Malaysian tertiary institutions particularly outside the classroom. A study by Musa et al. (2012) suggested that more researches on the students' practices of English language outside of the classroom should be carried out as many previous researches on English language teaching and learning in the classroom have been conducted. Thus, this study attempts to explore how WA features can be utilized as a tool in English language teaching particularly after the classes have ended students' perception to the use of WA in learning English language and to examine the benefits and drawbacks of WA in promoting English language learning. This current study aims to investigate the utilization of WA in teaching and learning English language in a Malaysian private higher learning institution. The study was conducted in TATI University College situated in the East Coast of Malaysia which is a privately owned by
Terengganu state government. This study intends to answer by the following research questions:

i) How WA features are utilized by English lecturers as an instructional tool in English language teaching?

ii) What is the students’ perception towards the use of WA in English language teaching?

iii) What are the benefits and drawbacks of WA in promoting English language learning?

2. Literature review

2.1. Technology in language teaching and learning

Learning has been associated with technology as a tool to enhance or improve the quality of learning since 1960’s. However, the introduction of technology in teaching and learning in the early years had stirred the education world with a notion that technology would conveniently replace teachers with its existence. Certainly, there is no truth in that notion. Hence, technology application is mere a tool that can be utilized by teachers as one of many methods available to vary their approaches of language teaching to achieve students’ optimal learning efficiency; but not in any manner to replace face-to-face classroom teaching.

It is essential to note that the development of technology have influenced pedagogy ever since it was first introduced. As more and more students become information technology savvy and using the Internet have become trendy and hip, language teachers ought to consider technology application, in this particular case, is mobile technology, as an option in diversifying instructional method of teaching language particularly beyond the four walls of their classroom. Marfisi and George (2014) suggested that language teachers should not only actively participate in the utilization of the application, but also involve in the development process of designing the application so that the application meets the objectives of language learning and the ends as well as the abilities of the language learners.

Through various “communicative and interactive activities”, technology can assist second language learners to develop "their linguistic skills, affect their learning attitude, build self-instruction strategies and self-confidence" (Lai and Kuo, 2007). This is supported by Brown (2000) who claimed that “intrinsic motivation is a powerful incentive for learning, successful language learners make a strategic investment in their learning and self-confidence is an important precursor to success in language learning”. Nevertheless, these technology applications should be carefully designed, planned and implemented as Bromfield et al. (2001) found in their research that poor task design, system failures, teacher knowledge and control differences, missed classes and lack of communication created implementation problems.

2.2. Mobile learning

Current trend of utilizing mobile phones among the youth to connect and interact with people of common interest, shared relationship and life experiences has transformed the means the students seek information and learn. Mobile learning can be considered as the best approach to tap into this trend. This is due to the fact that mobile learning offers anywhere/anytime feature which favors today’s modern society. Apart from that, mobile learning is regarded as the most reliable learning alternative to resolve the problems caused by the constraints of the facilities in the classroom and lack of access to available PCs on campus (Srivastava and Gulati, 2014), hence helping teachers with limited resources.

Srivastava and Gulati (2014) stated that mobile learning promotes various learning opportunities. First, learners can improve their understanding on lecture comprehension and assessment using recorded information/sessions via mobile phones. Second, learners are able to monitor their learning progress via various kinds of assessment provided by the teacher. Third, learners can learn via images for example pictures, videos, graphics and animations to better comprehend difficult concepts. Fourth, teachers and learners are able to participate in collaboration via SMS, chat, networking, discussion forums and email. Fifth, learners are learning via games, simulations and other interactive applications related to the course content determined by the teachers.

Sixth, learners can study compressed reading materials in forms of small reading files, anecdotes or reading examples planned by the teacher for outside classroom readings. Seventh, learners can enhance their comprehension on course content via audio files which contain short explanations, podcast, research discussions and many more. Eighth, learners can better grasp the information required for class by searching information online which is easily available with the search feature offered by mobile phones. Ninth, mobile phones feature e.g. calendar can be utilized to arrange learners’ learning schedule which include reminders and due dates of assessments as well as assist the teachers to monitor attendance and performance. Tenth, mobile learning enables learners and teachers to facilitate support and co-ordination required to obtain additional information about the course and the course content. Finally, mobile learning is embedded with numerous free applications and some may be purchased with reasonable price by the provider such as dictionaries, calculators, spelling checker and many more.

2.3. WhatsApp as an instructional tool in language teaching and learning

WA has been integrated into teaching as an instructional tool for language teachers to promote fun and interesting language activities to stimulate
active language teaching and learning (Fisher, 2006; Susilo, 2014; Wilson and Boa teng, 2014). Various WA features are available such as text, message, video and voice messages and can be utilized to teach literature (Muhamad et al, 2015) writing, vocabulary (Alsaleem, 2013), speaking particularly debating skill and discussion (Susilawati and Salam, 2015), reading (Niveen, 2016) as well as research skills, technology proficiency skills and communication skills (Sunil, 2015).

A study by Barhoumi (2015) proved that the use of WA as a tool of learning English is more effective than traditional classroom interaction, as it improves students’ achievement and foster positive attitudes towards language learning and teaching. This is supported by another study by Aicha (2014) on the impacts of WA on students’ achievement and attitude which again proves that the utilization of WA in language learning has a positive impact on students’ test performance and attitude as they favor the learning activities conducted via WA.

Furthermore, the educational benefits are highlighted by another study conducted by Bansal and Joshi (2014). The results indicate that WA grants access to instant feedback and guidance from the lecturers on learning problems they experience, provides the option of learning on-the-go, enables to gauge in discussion for better comprehensibility on class lessons, enables review on previous lessons learnt, indirectly promotes learning from fellow students’ problems, enables access to learning materials regardless of time and place as well as improves students’ social communication with their classmates and teacher. While Rambe and Chipunza (2013) discovered from their study that WA can be utilized as an immediate platform for learning materials, providing peer and teacher support, encouraging “on-task behavior” and enriching “context-free” learning experience. On additional note, Trenkov (2014) mentioned that the interaction between teacher and students motivates students on on-going activities, reduces the need for direct consultations; develop good rapport with students and offers comprehensive scale of responses.

Nevertheless, Bansal and Joshi (2014) also pointed out the negative effects of WA used in learning process on married students as they think WA feature of enabling access from any place and time is intrusive and considered as an invasion of private time with family. Rambe and Chipunza (2013) noticed that students’ learning process is interrupted by slow internet connection which restricts the retrieval of WhatsApp contents containing lesson materials. Another study by Salem (2013) discovered that WA has negative effects on students’ vocabulary, spelling and grammar as students tend to utilize abbreviations, clippings and acronyms which violate grammar rules and are incorrect. Apart from that, Šedivá (2014) claimed that the findings of his study highlight two major limitations of learning via mobile applications which are the facility and service are not always available to all students (technical) and teaching staff need to acquire the skill to use the applications (personnel). The results of Gabarre et al. (2013) study disclosed the problems associated with the use of mobile phones for language teaching and learning such as the mobile phones are considered impractical compare to notebooks for its limited technical capabilities and posing greater threat of being stolen which impinge on their learning process. As a result, it demotivates the students from English language learning.

Bouhnik and Deshen (2014) who conducted a study on the utilization of WA between teachers and students categorized their findings on the advantages and disadvantages of WA in learning pertaining to technical, educational and instructional categories respectively. Technical advantages include the simplicity of WA use, free (at no cost), immediate availability regardless of place and time as well as students’ and teacher’s familiarity of WA technical aspects in comparison to email, short-messaging and Facebook. Meanwhile, educational advantages refer to the closer connection teacher’s feel with the students and vice-versa, enjoyable learning setting, feeling of being integrated into the group, effective communication between WA group members, the positive attitudes of the group members in assisting one another and sharing resources, closer connection with the teacher and extended interactions among group members beyond course completion. On the other hand, instructional advantages involve easy retrieval process of lessons materials, easy access to teacher support, on-the-go learning process, immediate corrective feedbacks and offer pleasant learning atmosphere.

They also elaborate on the disadvantages of the use WA in learning. Technical disadvantages of the use of WA are referred to the limited availability of smartphones and WA to all students, swarming of messages for perusal and the teacher’s affective management and control of the WA groups. Next are educational disadvantages which involve students’ high expectation on teacher’s availability, unsuitable words used in the messages and excessive disclosure of students’ private life. Finally, the instructional advantages which highlight the incorrect use of words and grammar in WA messages and the lack of efforts by some students.

3. Methodology

3.1. Research design and instrument

Mix-method research design was employed to obtain data required to answer the research questions. Combination of the features from both qualitative and quantitative methodologies offers findings which assist in presenting better conception on the problem/s investigated rather than the individual method on its own (Creswell, 2013).

Quantitative method was applied to obtain the main data of the study. Questionnaire was deemed suitable to gauge into the ways on how WA features
such as test, image and video messages were utilized as a tool in English language teaching outside class. This self-administered survey with regard “WhatsApp as an Instructional Tool Beyond a Classroom in a Malaysian College” was posted on Facebook group of an English course at a higher learning institution in the East Coast of Malaysia. The items measuring was adapted from two studies by Alfaki and Alharthy (2014) and Aina and Ogundele (2014) in order to gauge into students’ perception about the use of WA in learning English at the university level. The questionnaire comprised of 2 sections (Section A and Section B). Whilst, Section A was developed to obtain information on demographic data; Section B was designed to measure students’ responses to the use of WhatsApp by their English lecturers in learning English. The researchers investigated 3 main constructs (in Section B) namely:

- text message via WA (TMWA)
- image message via WA (IMWA)
- video message via WA (VMWA)

Voice message via WA was not investigated in this study as it was discovered in preliminary discussion with the lecturers that they did not use voice message via WA in teaching English for their classes. The lecturers further explained that they noticed from another WA group for learning English that the responses from students with regard voice message via WA were not as encouraging as other methods. Apart from that, qualitative method was also utilized to collect data. The WA group exchanged messages between the students and their lecturers were discreetly observed by the researchers. Then, semi structured interviews were conducted with five selected participants via new WA group which consisted only these five participants, the lecturers and the researchers. These participants were selected using purposive sampling technique which is based on their active responses in order to explore how WA features were utilized and to determine the benefits and drawbacks of using WA as instructional tool beyond the classroom.

3.2. Participants

In gathering data for the study, two English lecturers were identified using the purposive sampling method before the semester began and were invited to participate in the study. Both lecturers were carefully chosen since they have created WA group for classes they have taught since early 2014 and had utilized WA technical features to facilitate learning in and outside of the classroom. Both also were initially selected because they would be teaching the same course for second year students from various programs of four different faculties. Apart from that, the researchers also have observed that majority of the second-year students possessed smart-phones compare to the first-year students. This is probably because many have obtained their study loan allowance from the respective loan provider e.g. PTPTN, MARA, Yayasan Terengganu and many others.

The lecturers were initially informed that the study would be conducted for one whole semester and their WA groups will be monitored for the entire semester. After obtaining their consents, the researcher requested the two English lecturers to set-up WA group for their classes in the first week of the semester. The lecturers then asked the class representatives to add their classmates and give the permission to the students to utilize the groups for disseminating information about the class and discussion. Nevertheless, both the researchers and the lecturers monitored the group. However, only the lecturer managed the groups so that the objectives of the study can be achieved. There were four WA groups for different groups created.

The number of participants in the study (N=55, 32 males and 23 females). The participants currently enrolling in Degree program from four different faculties have completed the study. These include students from Faculty of Chemical Engineering, Faculty of Electrical and Automation Engineering Technology, Faculty of Manufacturing Engineering Technology and Faculty of Computer, Media and Technology Management and all are Malays.

4. Results and discussion

Observations on the WA exchanged messages were first analyzed to examine the features of WA which were commonly utilized by the teachers for each WA group. Next, the responses by the respondents were calculated using descriptive analysis of which frequencies and percentages were tabulated in order to better comprehend the results. Finally, answers to the students’ interview on WA messages were studied to find the emerging trends in order to achieve the research aims.

4.1. Common WA features used as an instructional tool beyond classroom

Similar trends are emerging in WA messages from the observations of four different WA groups suggesting that the lecturers had utilized text message of WA features to promote discussions among the students, to disseminate additional information for assignments and project and to broadcast supplementary information and further instructions outside the classroom. They also had use image message feature to share information about the assignments and project given in class, display the images as notes and handouts for future references as well as facilitate discussion among students based on the images (function as discussion topic) received by WA. In fact, the lecturers also had manipulated video message feature e.g. videos from Youtube to describe topics taught in the classroom and encourage them to comment and discuss about the topic via WA beyond the class period. As
previously mentioned in research design and instrument section, voice message feature is not included in the present study due to the lecturers’ previous experience with students’ lack of responses to voice message tasks.

These results are further strengthened by the descriptive analysis from the survey which proves that text, image and video messages of WA features were utilized as an instructional tool to teach English language.

Table 1 below presents the results of the use of TMWA by their English lecturers in teaching English. It is obvious from the table that majority (54.5% response rate) agreed that their English lecturers sometimes used TMWA to explain and describe exercise and assignments (Q2-54.5% response rate), to explain notes and handouts (Q3-58.2% response rate) and to engage in discussion (Q4-38.2% response rate). An example of given assignment discussed via WA can be observed in Fig. 1. In fact, it was interesting to find that more than half (Q5-58.2% response rate) would almost always respond to TMWA for awarded marks.

Table 1: Respondents’ response distribution for text message questionnaire items

| Item | TMWA | Almost Never | In-frequently | Sometimes | Almost Always |
|------|------|--------------|---------------|-----------|---------------|
| Q1   | 6    | 10.9         | 10.9          | 54.5      | 13            |
| Q2   | 4    | 7.3          | 5.5           | 54.5      | 32.7          |
| Q3   | 3    | 5.5          | 12.7          | 32        | 58.2          |
| Q4   | 6    | 10.9         | 16.4          | 34.5      | 21            |
| Q5   | 1    | 1.8          | 14.5          | 25.5      | 32            |

*F = frequency

The responses to the use of IMWA were indicated in Table 2. It has been found that majority (Q6-47.3% response rate) stated that their lecturers sometimes used IMWA in class. As a matter of fact, majority of the respondents were in agreement on how lecturers utilize IMWA in classroom which were to explain and describe exercise and assignments (Q7-49.1% response rate), to explain notes and handouts (Q8-41.8% response rate) and to engage in discussion (Q9-60% response rate). Example of given handout discussed via WA is shown in Fig. 2. Meanwhile, Q10-41.8% of total respondents decided that they sometimes respond to IMWA for the purposes of learning English. The respondents (Q11-54.5% response rate) reported that they would almost always reply to IMWA to learn English if they were rewarded with marks which is suggesting that marks reward encourages students’ participation.

Table 2: Respondents’ response distribution for image message questionnaire items

| Item | IMWA | Almost Never | In-frequently | Sometimes | Almost Always |
|------|------|--------------|---------------|-----------|---------------|
| Q6   | 11   | 20.0         | 16.4          | 47.3      | 9             |
| Q7   | 10   | 18.2         | 8             | 27        | 49.1          |
| Q8   | 10   | 18.2         | 13            | 23.6      | 41.8          |
| Q9   | 6    | 10.9         | 12.7          | 33        | 60.0          |
| Q10  | 7    | 12.7         | 11            | 20.0      | 41.8          |
| Q11  | 4    | 7.3          | 7             | 12.7      | 25.5          |

*F = frequency

Table 3 provides the summary of the responses of VMWA use in English course enrolled. It has been discovered that the majority of the respondents (Q12-36.4% response rate) believed that their English lecturers sometimes utilized VMWA to explain and describe about certain topics of the lecture. An example of VMWA activity can be examined in Fig. 3. Whilst, majority (Q13-36.4% response rate) of the respondents stated that their lecturers instruct them to comments on the video,
close to half (Q14-45.5% response rate) responded that they would post a video related to the topic discussed in class.

Table 3: Respondents’ response distribution for video message questionnaire items

| Item VMWA | Almost Never | Infrequently | Sometimes | Almost Always |
|-----------|--------------|--------------|-----------|---------------|
| Q12       | 19 35 9 16.4 | 20 36.4 7 12.7 |           |               |
| Q13       | 18 32.7 8 14.5 | 20 36.4 9 16.4 |           |               |
| Q14       | 10 18.2 11 20 25 45.5 | 9 16.4 |           |               |

* f = frequency

4.2 Benefits and drawbacks of WhatsApp usage in language teaching and learning

Using purposive sampling technique, the two English lecturers posted interview questions via new WA group with regard the use of WA for teaching English to five participants labelled as S1 to S5 without looking specifically at their gender, program of study and level of English proficiency. As mentioned earlier, these participants were chosen based on their active responses to WA messages posted on their class WA group.

The findings of the study highlighted the similar trends of the benefits and drawbacks of the use of WA as an instructional tool as proposed by Bouhnik and Deshen (2014) which were identified via interview questions. Their responses are categorized into six main categories as shown in Table 4.

It was observed that all respondents emphasized on three main benefits of using WA for learning English namely technical, educational and Instructional.

S2, S4 and S5 highlighted that there were several technical benefits of using WA as instructional tool beyond the regular classroom like the service is free of charge as S2 said WA is “free”; WA is available all the time as S4 described that it is “easy to get information” via WA and WA is already being used by lecturers and students as agreed by S5 “everybody uses WA nowadays”.

S1, S3 and S4 mentioned the educational benefit of using WA in learning English which is pleasant atmosphere as they described the experience is “our environment on study become more enjoy”, “interesting” and “fun” respectively. Hence, it is recommended for English lecturers to use this medium as teaching aid instead of the regular tool: chalk and board.

Table 4: Summary of the benefits and drawbacks of using WA as an instructional tool

| Respondent | Technical | Educational | Instructional | Technical | Educational | Instructional |
|------------|-----------|-------------|--------------|-----------|-------------|--------------|
| S 1        | •         | •           | •            |           |             |              |
| S 2        | •         | •           | •            |           |             |              |
| S 3        | •         | •           | •            |           |             |              |
| S 4        | •         | •           | •            |           |             | •            |
| S 5        | •         | •           | •            | •         |             | •            |

The respondents also stated other educational benefits such as sharing materials and personal relationship with lecturers while using WA for learning English as S2 said that “it easy to share information” and “can share with others in group” and S5 mentioned of having “good communication with lecturers”.

It was also noted that the respondents agreed that there were several instructional benefits experienced in learning English via WA. The first examined is accessibility to learning materials as S1 revealed that by using WA students “can keep notes permanently” and S5 supported that by saying “easy reference from their phone”. S3 further elaborated that: “... youtube videos such as mdm already did is unexpected and its really interactive and useful”.

Then, another instructional benefit was identified that is teacher availability as remarked by S5 “lecturers easy to contact”.

Majority of the respondents named one of the major drawbacks under technical category which is not all students possessed smart phones, the
essential tool needed to participate in learning via WA. This can be observed in their responses to the interview question asking about the major disadvantage of learning English using this tool. S1 said “(difficult to learn especially for) the student who does not have a smart phone”. S2 said that he is “strongly agree with S1 (problem for students don’t have smart phones)”, S3 stated “Quite good for those who have smartfon but not so suitable for those who didn’t have...” and finally, S5 mentioned that “disadvantage... not all students have smart phones”. It was also examined that the respondents identified time consuming as another technical disadvantage of using WA as an instructional tool beyond regular classroom such as S2 said “waste time scrolling for notes”; S3 mentioned “need to be online constantly” and “constant WA users can’t focus on lecture of other classes”. Apart from that, educational disadvantage such as students’ usage of inappropriate language was also noticed from the respondents’ interview answers as S4 highlighted that “friends posted not so appropriate words used” and S5 described friends who had used “not relevant responses from classmates for discussion”.

5. Conclusion

Today’s tertiary students are indeed IT savvy and technologically inclined as revealed in a survey by Ismail et al. (2012). They discover that the students prefer ESL learning via technology and propose that it should be extensively and constantly utilized by English teachers. Therefore, teachers must use these qualities to their advantages so that students participate in class discussions are encouraged to use the language in their everyday lives and are motivated to improve their English competency. This notion is also agreed by Ismail et al. (2012) who emphasize on the importance of an instructional tool (for example WA in this case) that can assist students in improving their language proficiency and at the same time is appealing to the students and able to maintain their interest in English language learning. English competency among Malaysian students is deteriorating and constantly mentioned on Malaysian primary newspapers. Thus, it is essential that English teachers apply all means necessary to improve English language usage among our students because English language will continue to be the international language of people around the globe. Therefore, our future generation will need to stand tall in the competition against other nations in facing the challenges brought by globalization.

References

Ahad AD and Lim SMA (2014). Convenience or nuisance? The “WhatsApp” dilemma. Procedia Social and Behavioral Sciences, 155: 189-196.

Aicha AB (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): 116-136.

Aina JK and Ogundele AG (2014). The use of technology for teaching and learning in science and technical education in Colleges of Education, Nigeria. Integrated Journal of British, 1(3): 57-64.

Alkiki IM and Alharthy K (2014). Towards a digital world: using social networks to promote learner’s language. American International Journal of Contemporary Research, 4(10): 105-114.

Alsakeem BIA (2013). The effect of “Whatsapp” electronic dialogue journaling on improving writing Vocabulary Word Choice and Voice of EFL Undergraduate Saudi Students. Arab World English Journal, 4(3): 213-225.

Bansal T and Joshi D (2014). A study of students’ experiences of mobile learning. Global Journal of Human-Social Science, 14(4): 26-33.

Barhoumi C (2015). The effectiveness of WhatsApp mobile learning activities guided by activity theory on students’ knowledge management. Contemporary Educational Technology, 6(3): 221-238.

Bouhnik D and Deshen M (2014). WhatsApp goes to school: Mobile instant messaging between teachers and students. Journal of Information Technology Education: Research, 13: 217-231.

Bromfield LM, Clarke VA, and Lynch N (2001). Comparing alternate teaching styles to teach computing skills to girls in their English classes. Computer Education, 36(4): 285-297.

Brown HD (2000). Principles of language learning and teaching. Pearson Education, Inc., Upper Saddle River, USA.

Creswell J (2013). Research design: Qualitative, quantitative and mixed methods approaches. Sage Publications, Thousand Oaks, USA.

Fisher T (2006). Educational transformation: Is it, like ‘beauty’, in the eye of the beholder, or will we know it when we see it? Education and Information Technology, 11(3-4): 293-303.

Gabarre S, Gabarre C, Rosseni D, Parilah MS, and Aida AK (2013). Using mobile Facebook as an LMS: Exploring impeding factors. GEMA: Online Journal of Language Studies, 13(3): 99-115.

Ibrahim AA, Hafiz H, and Idris RG (2015). Psychometric properties of WhatsApp use and perceived academic performance: An exploratory factor analysis. Journal of Creative Writing, 1(4): 57-64.

Ismail N, Hussin S, and Darus S (2012). ESL students’ attitude, learning problems and needs for online writing. GEMA: Online Journal of Language Studies, 12(4): 1089-1107.

Lai CC and Kuo MM (2007). Gender difference in CALL programs for English as a second language acquisition. In the 18th Annual International Meeting of the Society for Information Technology and Teacher Education, San Antonio, USA: 1-6.

Marfisi SI and George S (2014). Supporting teachers to design and use mobile collaborative learning games. In the 10th International Conference on Mobile Learning, Madrid, Spain: 3-10.

Muhammad SH, Abdullah E, and Hamzah M (2015). The application of ICT in English literature classrooms. In the 1st Global Conference on Technology in Language Learning, Kuala Lumpur, Malaysia: 203-208.

Musa NC, Koo YL, and Azman H. (2012) Exploring English language learning and teaching in Malaysia. Journal of Language Studies, 12(1): 35-51.

Niween MZ (2016). Special designed activities for learning English language through the application of WhatsApp. English Language Teaching, 9(7): 199-204.

Rambe P and Chipunza C (2013). Using mobile devices to leverage student access to collaboratively-generated re-sources: A case of WhatsApp instant messaging at a South African university. In the International Conference on Advanced Information and
Communication Technology for Education, Atlantis Press, Hainan, China: 331-337.

Salem AAM (2013). The impact of technology (BBM and WhatsApp applications) on english linguistics in Kuwait. International Journal of Applied Linguistics and English Literature, 2(4): 64-69.

Šedivá Z (2014). Mobile applications support in the educational process. Systémová Integrace, 21(4): 81-89.

Srivastava S and Gulati V (2014). M-learning-on path to integration with organization systems. In the 10th International Conference on Mobile Learning: International Association for Development of the Information Society, Madrid, Spain: 26-33.

Sunil S (2015). Survey of the current use of social networking sites to develop English language skills of GTU students. International E-Journal for Research in ELT, 1(2): 60-69.

Susilawati E and Salam U (2015). Voice chat to develop students’ skills in online debate and discussion. Jurnal Pendidikan dan Pembelajaran, 4(12): 1-13.

Susilo A (2014). Exploring Facebook and WhatsApp as supporting social network applications for English learning in higher education. In the PDE Professional Development in Education Conference, Bandung, Indonesia: 10-24.

Thang SM, Lee KW, Murugaiah P, Nurjanah MJ, Choon KT, and Nurul AB (2016). ICT tools patterns of use among Malaysian ESL undergraduates. GEMA Online Journal of Language Studies, 16(1): 49-65.

Trenkov L (2014). Managing teacher-student interaction via Whatsapp platform. In the 6th International Conference on Education and New Learning Technologies, Barcelona, Spain: 6596-6600.

Wilson KB and Boateng KA (2014). Integrating ICTs into the teaching process: Issues in pedagogical practices in teacher education. International Journal of Computing Academic Research, 3(4): 96-103.