The Use of WeChat Application on CFL Learners' Vocabulary Acquisition

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Abstract

This quasi-experimental research explored Chinese as a Foreign Language (CFL) learners' use of a popular social networking application in China, WeChat, in acquiring vocabulary. The research questions answered in this study are: (1) How may the CFL learners' vocabulary performance be described in terms of: (a) pretest scores and (b) posttest scores; (2) Is there a significant difference between the performance in pretest and posttest of the control group and experimental group?; (3) What are the implications of the results of this study in teaching? Participants joined the ten-day treatment wherein they used the three features of WeChat: WeChat Messaging, Official Accounts, and Mini Programs. The participants' performance before and after the treatment were identified using pretest and posttest. In addition, observation checklists were utilized to determine the change in behavior in acquiring vocabulary of the CFL learners. Results suggested that WeChat could improve students' vocabulary acquisition in foreign language. Suggestions for improvements in future WeChat treatment were also discussed.

Introduction

One of the skills that a 21st century learner should master to be successful in school and in life is digital literacy (Jenkins, Purushotma, Weigel, Clinton, & Robison, 2009). As defined by Visser (2012), digital literacy is the ability to use, evaluate, create devices and share digital contents. In the age of computers and electronics, access of technological devices has been increasing; and according to Hsu (2013), the use of these technological devices in teaching, specifically in language teaching, provides new learning experience to the learners; it makes teaching and learning more contextualized and effective.

The Natural Approach in language teaching of Terell and Krashen (as cited in Tupas, 2002) suggested that in a classroom, the most effective way to acquire a language is by being exposed to the target language. Therefore, the main task of the teacher is to provide simulations and expose the students in the use of the target language in real-life situations (Krashen, 1981). The question turns back to technology; can technology be an alternative to this strategy? In a research conducted by Ariza and Hancock (2003), they assured that aside from simulations, input can also be provided with the use of different instructional materials and technological devices. Also, Lin (2010) stated that advancement in technology affected second/foreign language learning and educational methodology in general. Hsu (2013) also guaranteed that technology aided one of the challenges that foreign language teachers usually encounter--providing a contextualized yet authentic communication experience to learners, given the fact that a language environment is not present at all times to give learners the opportunity to use the foreign language.

Moreover, Wang (2005) mentioned that the integration of technology in education has actually influenced the change in the educational paradigm to constructivist learning approach. In line with this, the first goal of this study is to contribute to such change particularly in the educational paradigm and to help curriculum developers improve

the current curriculum of CFL in the Philippines by determining the effect of WeChat, one of the world's largest stand-alone mobile applications in 2018, on vocabulary acquisition. Vocabulary, according to Huang and Liao (2010), refers to the totality of words and set phrase in a language. Furthermore, vocabulary is the building material of language for without it which a building will not be constructed; just as, without vocabulary, there are no possible ways to create sentences. According to Datzman (2011), acquiring vocabulary posed great challenges to both the learner and the teacher. Moreover, in Chinese language, the level of the students is determined based on the number of vocabulary they know. Therefore, the researchers considered that realizing the effect of using social networking application in vocabulary learning will help the Filipino curriculum developers create an enhanced foreign language program.

Teachers, through the use of educational technology, such as digital tools, can provide learners a more effective learning environment and more productive learning opportunities (Mitra et al., 2005). Some of the emerging digital tools in the present time are mobile phones and social media. Social media is a compilation of websites and web-based systems accessible through any device which enable people in using the network to mass interaction, conversation and sharing over the internet (Health Research Institute, as cited in Hill, Dean, & Murphy, 2014).

Numbers of social media users around the world have been growing at a remarkable rate and it has been included in the curricula of different universities to give their students the edge in the job market after graduating. More and more educators are becoming interested in integrating social media in their respective area of teaching, such as vocabulary teaching (Noor Al-Deen, 2016). This is because research done by Ariza and Hancock (2003) implied that vocabulary acquisition, an important aspect of language learning, through social media is quite similar to the first language acquisition of a child.

The Acquisition-Learning theory of Krashen (1978) asserted that humans gradually develop an innate linguistic knowledge subconsciously. Akin to this, Anderson's (2007) study explained "acquisition" as a term which implies the involvement of subconscious, innate, and effortless assimilation of specific linguistic knowledge in one's language mastery. On the other hand, "learning" involves conscious and explicit psychological process of attaining linguistic knowledge. This is often observed in the classrooms. Anderson justified "acquisition" being the better approach as opposed to language "learning". He further asserted that language "acquisition" is constantly being displayed with the use of technology. Hulstijn, Hollander, and Greidanus (as cited in Petchko, 2011) added that incidental learning is described as the accidental learning of vocabulary with no intention to learn. In line with this, the second goal of this study is to help CFL teachers to perceive the effects of social networking applications such as WeChat not just in students' daily lives, but also in their academic lives. As local teachers of Chinese Language, anything which can help the learners, such as integrating mobile technologies and social media, must be studied and utilized to provide better learning experience.

Manipulating both mobile technologies and social media can be beneficial. According to West (2012), benefits of using both in the context of education include: enabling multiple ways of learning, supporting multi-modality and student improvisation and sharing and creating students' artifacts. Currie (as cited in Sung & Poole, 2017) advocated the view that social networking applications on Smart phone are the most helpful tool in student learning. Furthermore, a research conducted by Wu (2014) concluded that the use of Smart phones is highly effective to Chinese people learning the English language, particularly in vocabulary.

On the other hand, research done by Dehghan, Rezvani, and Fazeli (2017) has shown that no significant changes happened after using a mobile device and social media application, WhatsApp, in learning English as a foreign language. Moreover, according to McLeod (as cited by West, 2012), many schools in the elementary and secondary level did not permit the use of mobile devices because they were not helpful to the teaching-learning process. Also, teachers from different levels viewed handheld-devices as disruptions to the students from different educational opportunities. An example of this is when Greenwich Free school in London stated in its public documents that "Mobile phones are a huge distraction in lessons, with pupils thinking about text-messaging,

Twitter or Facebook in class instead of their work" (Greenwich Free School, as cited in Ally & Tsinakos, 2014). In addition to this, Kross et al. (2013) have concluded that rather than improving the well-being of the youth, Facebook, a well-known social networking application, weakened young adults' well-being. Zhou, Liu and Xu (2015) also stated that WeChat, a mobile-generated communication application, tends to cause indifference and estrangement in the real-life interaction of a person.

The disadvantages that social application posed (specifically WeChat), however immense, still might not outweigh the boost it may cause in education. Wu's (2014) research emphasized the positive impact of WeChat, a social networking application famous in China. He claimed that WeChat has brought to the well-being of its users because it has encouraged a selective friend strategy in nurturing a strong-tie-based social networking. This led to positive impacts on its users' psychological and physical well-being by cultivating an intimate and private community in social networks. Such privacy and intimacy resulted to more opportunities of sharing positive events that created ripple effects of spreading positive emotions through the social network. In addition, WeChat's mobile features strengthened relational well-being by enhancing comprehension, communication and the savoring of emotional experience. Gutman and Vorhaus's (2012) research has illustrated that the well-being of a person is a "key factor" in education and according to Wu (2014), WeChat features appeared to work together to improve users' well-being.

Tencent, the developer of China's "super-app" and "app for everything"--WeChat, has added several features to the application ever since it has been developed. Features of WeChat include Multimedia Messaging, group chat and calls, free voice and video calls, sticker gallery, 'Moments' timeline, People Nearby, Shake Shake, Real-time Location, language support, customizable group sharing settings, Official Accounts, and Mini Programs (Koetse, 2014). Some features of WeChat such as People Nearby and Shake Shake were not selected in this study due to some unethical issues. Rixtel (2015) stated that his decision to delete WeChat happened after using the features Shake Shake and People Nearby. At a span of one week, he has received over more than 20 obscene messages, marriage proposals and x-rated photographs.

Few features of WeChat such as messaging, Official Accounts and Mini Programs were involved in this study. WeChat Messaging uses diverse instant messaging means which includes voice messaging, text messaging, and stickers. Through WeChat Messaging, users of the application were able to send live or previously saved pictures or videos, name cards of any other users, lucky money packages, coupons, or current locations either with the group or individual (Wikipedia). Zeng, Deng, Wang, and Liu (2016) revealed that WeChat Messaging helped stimulate students' enthusiasm and interest, enhanced self-initiative learning ability, enriched collaboration with colleagues, and upheld the education reform. The next feature is Official Accounts; the results of the study done by Gao and Wang (2017) suggested that Official Account of WeChat has a positive role in spreading micro-content, attracting learners, evaluating real-time learning effects and promoting personalized learning. According to Graziani (2017), Official Accounts are interfaces which a specific class can utilize to: gather followers and send push notification. Most WeChat Official Accounts appear in the "Chat" section of WeChat. Another feature of WeChat used in this study is the WeChat Mini Programs which are "sub-applications" within the WeChat ecosystem (Graziani, 2017). In an article of China Internet Watch, it stated that as of 2017, the top 100 Mini Programs of WeChat fell into categories such as utility programs, purchase, and most importantly, education.

In a research conducted by Lin (2017), it has been concluded that WeChat-based communicative teaching may solve many glitches or loopholes found in the traditional teaching approach. Li, Fan, and Jiao (2016) added that a data from Baidu Statistics showed that over half of the students surveyed have perceived WeChat of high usefulness in mobile learning environment. These reasons lead to the last goal of the study which is to aid CFL students or the language learners to assess and improve their knowledge on vocabulary using WeChat as the learning environment.

Regardless of the different conclusions and inferences, one cannot simply affirm an opinion greater than the other or that one is applicable here or there. As the saying goes, "what works here, might not work there." Hence, given

the contradictory belief and the limited study on social media and WeChat for learning Mandarin, this study aimed to determine the effectiveness of WeChat application in learning vocabulary used by the CFL learners of Angeles University Foundation.

Hence, the study aimed to seek answers to the following questions.

1. How may the CFL learners' vocabulary performance be described in terms of: (a) pretest scores and (b) posttest scores?
2. Is there a significant difference between the performance in pretest and posttest of the control group and experimental group?
3. What are the implications of the results of this study in teaching?

Methods and Materials

Research Design

This study used quasi-experimental design. According to Creswell (2013), the experimental group in this method was exposed to the variable. Results from group that was not exposed to the variable was compared with the other group. Consequently, Cook (2015) also mentioned that quasi-experiments normally test the long-lasting treatments' causal consequences and are different from "legit" experiments where assignments are random. Thus, in this investigation, the control group used traditional method, while the experimental group used WeChat. At the end of the treatment, the changes in control and experimental group's performance were identified.

Participants

This research included a total of eighteen (18) participants from Angeles University Foundation-Confucius Institute (AUF-CI). Among the CFL learners, there are a total of six (6) male and twelve (12) female participants, with an age range of 18-21 years old. The CFL learners are Filipino students learning Chinese Mandarin as a foreign language. All of the CFL learners are HSK 5 and HSKK beginner passers. There were two groups: the control group and the experimental group. At first, the formation of the group was based on the profile of the students. Those who were diagnosed using and have WeChat application were the experimental group and those who did not have the WeChat application were in the control group. But as the division between WeChat user and non-WeChat-user was not equal, matched sampling technique was used to settle the division of the participants; the variable used in the matched sampling technique was the pretest scores of the participants. This resulted to have nine (9) students in the WeChat-user group and nine (9) in the Non-WeChat-user group.

Participants of the study also included the interlocutors. The interlocutors' age ranged from 18-24 years old; all of which were undergraduate students from different universities in China. Researchers posted an invitation in WeChat for those who were willing to participate in the study. Interlocutors volunteered to participate in this study. They received letters regarding the overview of the research. The role of the interlocutors in the study is to communicate with the CFL learners via the messaging features of WeChat. No restrictions were given as to the topic of their interaction.

Sampling Technique

This investigation used purposive sampling technique. As defined by Etikan, Musa, and Alkassim (2015), this technique is also termed as a judgmental or expert sampling; it is not random and needs no fundamental theories or particular number of population. Lavrakas (2008) added that this is a type of non-probability sample having a main objective to arrive with a sample of assumed representative population that is logically arranged. In this study, HSK level 5 passers who have used the WeChat application were identified and were admitted participants of the study.

Instrument

In this study, profiling survey was used to identify the participants' information. According to Anderson (2015), this type of survey is important to establish the respondents' profile and to be objective in the study. In this

research, the survey was used to identify the respondents' name, age, and gender. It was also used to identify the total amount of time the respondents spent in studying Mandarin and using the WeChat application. The survey was also used to check whether or not respondents have internet access, are familiar with WeChat application and its' proper usage, have used the WeChat application, have the WeChat application in their mobile devices, have accounts on WeChat, and are still using the WeChat application. This instrument was validated by four (4) experts. Based on the experts' recommendations, informed consent was used instead of letters to participants. In the survey, there are also blanks provided for some questions which require actual amount of time.

Another instrument used was a pretest and a posttest. According to Shuttleworth (2009), quasi-experiments usually use a pretest-posttest research tool wherein the researchers study and assess the respondents before and after the treatment. Thus, pretest-posttest assessment tool was used to measure the effects of WeChat on the CFL learners' vocabulary acquisition, specifically Chinese characters' recognition, word use and meaning. The pretest and posttest were anchored on the lesson that the respondents learned during the ten-day treatment. For the first part, each item contains four statements wherein one of the four statements is incorrect. A word from a given statement is incorrectly used; therefore, making it a wrong statement. For the second part, each item has one statement with blanks. For each blank, there was one correct answer among the four choices. This instrument was validated by three (3) professional Chinese teachers. Based on the recommendations of the professional Chinese teachers, the items on the first part of the test were lessened; it only contained ten (10) items instead of having twenty (20) items. The length of time and focus of the students were considered in shortening the test. The participants were only given thirty (30) minutes to finish the thirty-item test. One item is equivalent to one point. To check the answers of the participants, the answer key was used.

During the treatment, observation checklist was likewise used. Chen (2012) described the use of observation checklist as the process wherein observers keenly monitor what happens inside the classroom or what action takes place. In this research, observation checklist was used with the integration of a column for pieces of evidence in which the movements or actions of the respondents were written as proof of the ticking of a specific behavior. The results in observation checklist were used as additional explanation of student's vocabulary acquisition performances. The behaviors observed in this study are the following: (1) accepts correction on mistakenly used words; (2) corrects mistake based on the directions or comments of the teacher; (3) anotates additional insight on a certain vocabulary to prompt further discussion; (4) asks questions to clarify certain meaning or usage of words; (5) gives examples or sentences using the vocabulary; (6) displays confidence upon answering a question related to vocabulary; (7) enhances collaboration with peers by sharing learned vocabulary knowledge; (8) uses vocabulary in different contexts, and; (9) answers the question of the teacher voluntarily. This instrument was validated by four (4) experts. Based on the recommendations, behaviors which are vague and difficult to measure, such as: (1) follows the teacher on the vocabulary discussion, (2) pays attention in vocabulary discussion, and (3) shows understanding of the vocabulary being taught through facial expression, and gesture or verbal, were all removed. Rating scales, *almost always, often, sometimes and never,* were used instead of using two choices such as yes or no.

Data Collection Procedure

The ten-day treatment was done through the use of a Smartphone application---WeChat. Beforehand, the letter provided by the Angeles University Foundation--College of Education has been modified according to the needs of this study. This was used to seek the approval of the Philippines and Chinese directors of Angeles University Foundation--Confucius Institute (AUF-CI) and the entire concerned individual to let the researchers conduct the study in a specified class. The teacher of General Mandarin Class was asked to guide the researchers in constructing pretest and to make the participants answer it. On the general orientation, the protocol of the study was explained. Afterwards, the profiling survey was conducted to identify the possible participants; this was to check if and how long the CFL learners have been using WeChat. After establishing who may join the study, the permission of the participants to undergo the procedures of the study was asked using informed consent. The participants took the 30-item pretest on March 7 of 2018, 6:30 pm to 7:00 pm. The division of the participants to two groups, experimental group and control group, was done using matched sampling technique of the

participants' pretests' results. After the division, participants who resulted to be in the control group uninstalled the WeChat application.

On the other hand, the participants on the experimental group were given another orientation. In the orientation, the experimental group were informed to: 1) get a list of the interlocutors they have to interact with; 2) learn how to use the "accounts" and "Mini Program" features of WeChat by reading the user guide or user manual; and 3) use the WeChat application for 30-40 minutes after class; each feature- Messaging, Official Accounts, and Mini Programs for 10-13 minutes only.

In the Messaging feature, participants in the experimental group asked about or used the word/s they are studying in their General Mandarin class. As for the Official Accounts, participants read the articles and editorial posted in the account they followed. To check for compliance, short quizzes were given to the participants. The quizzes given were also validated before administration. For the Mini Programs, the experimental group played a game which is accessible through the WeChat application. The game played is a guessing game wherein a picture will be shown as a hint for the player to guess the word being referred to. Monitoring procedure such as unannounced monitoring was employed. There are five researchers in this study; three researchers monitored four participants each, while the remaining two monitored three participants each. The use of WeChat application was done in the participants' dormitory, 30 minutes after their last class for ten school days. Observation notes were used as proofs of monitoring. Another monitoring procedure employed was to let the participants screen capture their activity. The control group was also monitored.

After the orientation, the ten-day treatment has begun. The treatment occurred for ten school days, specifically on March 9, 12, 13, 14,15,16,19, 20, 21 and 22, 2018. Throughout this allotted ten-day treatment, the class was observed and the behaviors of the participants were checked using a checklist. The observation was done twice before the treatment and twice after the treatment. Observation happened during the General Mandarin class of the participants, specifically on March 7, 9, 12, and 22, 2018. After the treatment, the posttest was conducted on March 23 of 2018, 6:30 pm to 7:00 pm. The answered posttests were gathered and checked using the answer key for the test. Also, screen captures of the participants' conversation with the interlocutor, as well as screen captures of games played in the Mini Program, were gathered as evidence of compliance.

Data Analysis

To analyze the data, paired sample t-test for each group using Statistical Package for the Social Sciences version 22 (SPSS 22.0) was used with the help of the statistician.

Paired-sample t-test was used to determine the mean and p-value of each group's pretest and posttest results. The mean of the pretest of the control group was compared with the mean of their posttest; likewise, the mean of the pretest of the experimental group was compared to the mean of their posttest. Afterwards, the t-value and p-value of the two groups were analyzed to determine the significant difference between the performance of the students in their pretest and posttest. This was also done to determine which among the two groups had significant improvement after the treatment. Of the gathered results in this study, implications of using WeChat in vocabulary acquisition in Chinese Language were derived.

Results

Pretest and Posttest

Table 1 displays the descriptive statistics for the two conditions in each group. *N* represents the number of participants included in each unit.

For the control group, the average score of the participants in their pretest is 14.78 and the average score in their posttest is 16.67. The participants have higher scores in their posttest (mean = 16.67) than their pretest (mean = 14.78). This implies that there is an increase in the performance of the participants using the traditional way of

acquiring vocabulary in Chinese Mandarin after the ten-day treatment.

For the experimental group, the average score of the participants in their pretest is 14.89 and the average score in their posttest is 20.44. The participants have higher scores in their posttest (mean = 20.44) than their pretest (mean = 14.889). This implies that there is an increase in the performance of participants using the WeChat application in acquiring vocabulary in Chinese Mandarin after the ten-day treatment.

Therefore, based on the results presented in Table 1, there is an increase in the performance of the participants of each group in their pretest and posttest using different ways of acquiring vocabulary in Chinese Mandarin.

Table 1

Average Scores of the Control and Experimental Group

Group	Test	Mean	*N*
Control	Pretest	14.78	9
	Posttest	16.67	9
Experimental	Pretest	14.89	9
	Posttest	20.44	9

Significance Level

Table 2 presents the inferential t-test statistics. This was used to determine whether there is a statistically significant difference between the pretest and posttest in each group. This table shows the t-value (*t*), degree of freedom (*df*), and the significance level (sig. (2-tailed)) of each group.

For control group, the absolute t-value of the scores of the participants is 1.233. The degree of freedom is 8 and the significance level is 0.252. The significance level is greater than 0.05 which implies that for control group, there is no significant difference between the performance of the participants in their pretest and posttest using the traditional way of acquiring vocabulary in Chinese Mandarin after the ten-day treatment.

For experimental group, the t-value of the scores of the participants is 5.547. The degree of freedom is 8 and the significance level is 0.001. The significance level is less than 0.05 which implies that for experimental group, there is a significant difference between the performance of the participants in their pretest and posttest using the WeChat application in acquiring vocabulary in Chinese Mandarin after the ten-day treatment.

Based on the results, the control and experimental group obtained the same degree of freedom. However, the t-value of the experimental group is larger than the control group. This implies that the difference between the conditions in experimental group is more prominent than the conditions in control group. This also means that there is a smaller probability that the difference occurred by chance in experimental group than in control group. For the significance level of the two groups, control group has no significant difference, while experimental group has a significant difference between the conditions after the ten-day treatment.

Hence, paired sample t-test found the treatment with the experimental group to be significant, $t(8)= 5.547$, $p=0.001$, than the control group which has no significant difference, $t(8)= 1.233$, $p= 0.252$. This implies that vocabulary in Chinese Language can effectively be acquired using the features of WeChat application than just using the traditional way of acquiring vocabulary.

Table 2
Significance Level of the Means of Control and Experimental Group

Group	Test	*t*	df	Sig. (2-tailed)	Interpretation
Control	Pretest – Posttest	-1.233	8	.252	Not Significant
Experimental	Pretest – Posttest	-5.547	8	.001	Significant

*p-value <0.05 alpha level of significance

Pedagogical Implication

Vocabulary acquisition is a crucial factor in foreign language learning. In general, as vocabulary skills develop, the totality of a learner's capability to fluently speak the language increases. The results of this study implied that a substantial advancement in learning a language through the use of WeChat is evident. Hence, teachers can use WeChat in teaching vocabulary.

The results of this study also implied that the use of mobile application helped to create language immersion among participants and their interlocutors. This, therefore, suggested that teachers can use WeChat as a treatment. The WeChat application may serve as a beyond-the-classroom learning which may increase the possibilities of talking to a Chinese native language speaker and lessen the awkwardness and nervousness of interacting face-to-face.

Through this study, one may infer that WeChat may help increase the motivation, confidence and interest of the students, and promote a good attitude towards learning. Thus, teachers can recommend WeChat to learners who find difficulties in learning foreign language or to learners who are digitally-inclined.

Discussion

According to researchers such as Baker, Simmons, and Kameenui (1995) and Neo, Pesaranghader, and Rezaei (2014), vocabulary acquisition was shown to be vital to language development; therefore, language learners need not only the knowledge of grammar points but they likewise need to learn vocabulary to understand a material's content. In this regard, strategies to widen vocabulary acquisition have developed rapidly; one of which is the use of technology or more specifically, as applied in this study, WeChat.

The performance of CFL learners' in pretest and in posttest is the first point to be discussed. In this quasi-experimental research, the changes that happened to students, in terms of pretest and posttest have been closely observed. Based on the data gathered, both experimental and control group showed improvement from their pretest to their posttest; the control group with the average pretest score of 14.78 to an average posttest score of 16.67; and, the experimental group's average pretest score of 14.89 to an average posttest score of 20.44. The result of this study is in contrast to the study of Mingle and Adams (2015), where the results showed that the use of social network has a negative impact on students' academic performance. This is because students have used a lot of time on social media applications for the sake of entertainment and have disregarded, to great extent, their

studies (Tamayo & Dela Cruz, 2014).

However, the findings of this study are supported by the investigation done by Alemi, Sarab, and Lari (2012). Their findings showed that both their experimental and control group, regardless of the medium or form of learning, has had an increase in their posttest scores. Consequently, the result is also similar to the study of Kilickaya and Krajkas (2010) such that vocabulary activities both traditional and technology-integrated gave the participants opportunities to learn new words. Likewise, it helped develop a connection between meaning and form of the word (Horst, Cobb, & Nicolae, 2005; Nelson, 1998). Moreover, according to Spiri's (2008) research, studying vocabulary intentionally and studying with WordChamp leads to vocabulary acquisition.

Chu, Ng, Lai, and Lam (2015) also pointed out that the use of WeChat for learning has influenced their behavioral intentions. Likewise, the results on the behavior checklist support the findings in this study. At the end of the treatment, the control and the experimental group had changes in their behavior in acquiring vocabulary in Chinese Language. The respondents accepted corrections, corrected mistakes, annotated additional insight, clarified meanings, gave examples, displayed confidence, enhanced collaboration, used vocabulary in different context, and answered questions more frequently than they did before the treatment.

The significance level of the results in pretest and posttest of each group is the second point to be discussed. Based on table 1, there was an increase on the mean of control group with the difference of 1.89 and experimental group with the difference of 5.55. Given the result of this study, one can conclude that the increase on the mean of the experimental group was higher. Furthermore, table 2 showed that there was a statistically significant difference with the performance of the experimental group and there was no statistically significant difference with the performance of the control group.

The results of this study are in conflict with the findings made by Dehghan, Rezvani, and Fazeli (2017) which emphasized that participants who used a mobile networking software did not do a better performance than those who acquired vocabulary through the traditional method; because the learners appealed to a number of distractions such as music, games, movies, etc. In addition, another study has shown that the group who used a mobile application showed a boost in confidence and motivation upon using the treatment. Hence, the experimental group had a greater improvement than the control group who received a teachers' instruction only. However, the difference of the improvement by two groups still proved to be not significant (Monica-Arian & Anamaria-Mirabela, 2014).

On the other hand, the results of this study are supported by the research conducted by Basoglu and Akdemir (2010) which proved that the use of technology in vocabulary learning is more effective than using flashcards. Their study concluded that students had a great attitude towards the use of applications on mobile devices for the convenience it brings to them. Nguyen and Khuat (2003) also emphasized the positive influence computer, social media, and online games bring to vocabulary knowledge in foreign language. Furthermore, the study of Aghlara and Tamjid's (2011) indicated that the experimental group's mean score was significantly higher compared to those of the control group. Thus, this concluded that the use of digital games contributed positively to learning vocabulary of a foreign language. Also, a game accessible through a social media--Pearl Peril, is proven to have influenced students' knowledge on vocabulary development. The findings of the study showed that there was a significant increase between the tests of those who have played the game and that there was no significant difference between the tests of those who did not (Guvendir & Gezgin, 2015). Likewise, a social media game was used to teach vocabulary in the study of Cetin, Sozcu, and Kinay (2012). Their study found that there is a significant relationship with vocabulary acquisition and playing the game. Correspondingly, Yip and Kwan's (2006) study confirmed the usefulness and suitability of online games on vocabulary learning of undergraduate students. Akin to this study are the studies by Laurillard (2007) and Sharples (2006) where they have agreed that technological devices and social media have five advantages to education upon use. These are: accessibility, portability, learning opportunities, personal experience and connection. Anchoring on this, Shi, Luo and He (2017) conducted a study wherein they have concluded that WeChat helped students to significantly improve their

vocabulary skills. They also implied that WeChat, if used in education, may offer the following: affordability, accessibility, individuality, multi-functionality, and interactivity.

The results on the behavior checklist also supported the findings in this study. At the end of the treatment, the change in behavior is more evident to the experimental group than to the control group. The experimental group accepted corrections, corrected mistakes, annotated additional insights, clarified meanings, gave examples, displayed confidence, enhanced collaboration, used vocabulary in different context, and answered questions more often than the control group.

Conclusions

Based on the findings of this study, the researchers concluded the following:

1. Increase in students' performance is evident in pretest and posttest of each group.

2. A significant difference is observed between the performance of the experimental group and is not present in the performance of the control group.

3. WeChat application can be used in teaching vocabulary, conducting treatment and motivating learners who find difficulties in learning foreign language or those who are digitally-inclined in acquiring vocabulary of the Chinese Language.

Recommendations

Considering the results of this study, below are the recommendations of the researchers.

1. Global SLA or FLA audience may consider using the WeChat application in language acquisition as it is an effective tool in acquiring vocabulary, in this case, foreign language learning. Statistics by Pew Research Center shows that almost 95% of teens are using Smart Phones and 45% are online 'almost constantly'. This statistics calls for the need to use the things 'trendy' to the learner for better learning.

2. Curriculum developers may consider the integration of WeChat in the curriculum as a tool which can help students in learning Chinese language.

3. Teachers may encourage students to use WeChat application to improve their vocabulary in Chinese Language by providing WeChat-based assignments and discussions. Teachers must provide proper instruction in utilizing the application appropriately. Teachers must be aware of the performance and activities of the students using the application.

4. Students may participate more actively in using WeChat application to improve their language skills specifically their vocabulary knowledge in Chinese language. Students must monitor their time, attention and activities in using WeChat.

5. The future researchers may consider including more number of respondents, altering respondents based on language level, changing or expanding the locale, using another social media application other than WeChat, considering other languages, lengthening the treatment, and applying strict monitoring process.

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