A Social Media Based Learning System: An Investigation on the use of the Line Application for Teaching and Learning English Vocabulary and Grammar at a Thai Public University

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การใช้สื่อสังคมเพื่อการศึกษาสามารเพิ่มความสนใจแต่งานวิจัยที่เกี่ยวข้องดังกล่าวมีไม่มาก สื่อสังคมสามารถพิสูจน์ได้ว่ามีประโยชน์ต่อการเรียนการสอนภาษา จากประโยชน์ดังกล่าวเห็นได้ชัดเจนในหลายประเทศ เช่น ประเทศไทยซึ่งนักเรียนนักศึกษาส่วนมากมีพื้นฐานภาษาค่อนข้างน้อย นอกจากนี้การใช้สื่อสังคมในการเรียนการสอนภาษาได้ทั้งนอกห้องเรียนและผู้เรียนสามารถเรียนรู้ได้แบบยืดหยุ่นหรือตามความสะดวก การศึกษานี้มุ่งเน้นการใช้สื่อสังคมคือไลน์แอบพลิเคชันสามารถส่งเสริมและมีความสัมพันธ์กับการเรียนการสอนแบบเว้นระยะห่าง ซ้ำๆโดยที่ผู้เรียนสามารถเรียนรู้ได้นอกห้องเรียน กลุ่มตัวอย่างคือนักศึกษาสาขาการโรงแรมจำนวน 101 คนที่ลงทะเบียนเรียนวิชาภาษาอังกฤษในมหาวิทยาลัย การใช้ไลน์แอบพลิเคชันเป็นสื่อการเรียนการสอนไวยากรณ์ และคำศัพท์ และเป็นส่วนหนึ่งของการเรียนนอกห้องเรียน แบบสอบถาม การสัมภาษณ์ คะแนนก่อนและหลังการเรียนการสอน และการสังเกตเป็นเครื่องมือในการเก็บข้อมูลดิบผลการวิจัยพบว่า ผู้เรียนในกลุ่มทดลองมีผลการเรียนไวยากรณ์ และคำศัพท์สูงกว่า ผู้เรียนมีความพึงพอใจในการเรียนการสอนโดยใช้ไลน์แอบพลิเคชัน แบบผสมผสานทั้งในและนอกห้องเรียน ผลการศึกษาครั้งนี้เสนอแนะใช้ไลน์แอบพลิเคชันกับการเรียนการสอนแบบซ้ำๆ เป็นสื่อการสอนที่มีประสิทธิภาพสูง การศึกษานี้เสนอแนะว่าผู้สอนภาษาอังกฤษสามารถใช้วิธีการสอนแบบนี้ไปประยุกต์ใช้ได้ทั่วโลก

คำสำคัญ: ไลน์แอบพลิเคชัน ภาษาอังกฤษ การเรียนการสอนแบบผสมผสาน การสอนแบบเว้นระยะห่าง ซ้ำๆ

Abstract

The use of social networking tools within education is an area of increasing interest and one that lacks an extensive volume of previous research. Social networking tools have proven to be useful

for language learning and review. The use of such tools may prove beneficial in countries such as Thailand where students lack a strong background in English. In addition, the use of social networking applications in education may provide a relatively simple way to teach outside of the classroom and afford students some flexibility in their learning. This study examines whether the Line social networking application could be effectively used in conjunction with a spaced repetition approach to teach hospitality related English grammar and vocabulary outside of a traditional classroom. The participants of this study were 101 hospitality major students taking an English course at a Thai university. The Line application was used to teach hospitality related English grammar and vocabulary as part of a blended learning course. Data were collected through a questionnaire, focus group interviews, pre and post-tests and observations. The results showed students in the experimental group had higher grammar and vocabulary acquisition and retention levels. The study also found students were satisfied with using the Line application as part of a blended course. The findings from this study suggest the Line application when used with a spaced repetition approach has potential as a learning tool. The method outlined in this study is relatively simple to reproduce and could be adapted by English instructors throughout the world.

Keywords: Line application, English language, blended learning, spaced repetition.

Introduction

Tourism and hospitality are valuable parts of the Thai economy and offer employment opportunities for new graduates. In addition, tourist numbers to the kingdom continue to rise and the country is also in a good position to provide world class conference facilities within Southeast Asia. In order to provide a quality service though, hotel staff need strong English language skills. However, Thai students view English as being difficult to learn and rarely practise outside of the classroom. In addition, students often memorize context specific dialogues and then find meaningful communication

difficult (Charunsri, 2011; Nicholls, 2014; Panyawongngam, 2016; Prachanant, 2012; Yusica, 2014). In order to communicate effortlessly, hospitality graduates need lexical phrases and vocabulary relevant to their field. Furthermore, to retain English language in the long term, students must practise regularly. For this to be achieved, new or adapted methods with a mixture of online and classroom content may be required (Cavage, 2012; Lindsey, Shroyer, Pashler, & Mozer, 2014; Rott, 1999). Social networking applications have proven to be beneficial for learning. Unfortunately much of the available data is from questionnaire surveys that measure the students' acceptance levels in regards to the technology. Little data is available on the effectiveness of social networking applications when used for teaching and to achieve learning outcomes through raising knowledge levels (Tower, Latimer & Hewitt, 2014). Used in conjunction with a spaced repetition approach, social networking applications may provide a platform for teaching and learning English.

The purpose of this research was to measure the difference in English vocabulary and grammar structure knowledge acquired and retained by the students studying in a blended learning program using the Line application and students studying in a traditional classroom only based course. Furthermore, the researcher aimed to discover the students' perceptions and levels of satisfaction when studying through the Line application in a blended learning program. The study aimed to provide a free and effective and relatively simple method that could be adopted by English instructors worldwide. The teaching model and research methodology outlined in this paper is believed to be unique and has been developed through extensive prior research through a series of pilot studies ('Author', 2017; 'Author', 2018a; 'Author', 2018b). The study can benefit all learners of English and is useful for all instructors wishing to use social networking applications for instructional purposes.

Literature Review

Across Thailand, various universities offer hospitality and tourism degrees. The most up to date figure from 2012 shows nearly

10,000 students graduated from these programs. Although there are a large number of graduates, the industry still faces a shortage of well qualified front office staff (Batra, 2016). A lack of English skills has been identified as one of the reasons for this shortage. In the classroom, context specific dialogues are often memorized through rote learning. Therefore, new graduates often lack the English skills for meaningful interactions with customers (Nicholls, 2014; Panyawongngam, 2016). Previous research has highlighted the need for greater levels of grammar knowledge such as tenses and auxiliary verbs which are used to ask and answer questions and give information. In addition, greater levels of industry related vocabulary are also required for communication with hotel guests (Charunsri, 2011; Prachanant, 2012).

Unfortunately, forgetting appears to be an unavoidable part of the language learning process. For instance, language instructors can focus a great deal of effort teaching content that is forgotten by the following week. Learning a language is difficult and requires continual practice of vocabulary and lexical phrases. In this respect, spaced review has been shown to aid long-term memory and research has shown it to be a useful method for foreign language learners (Bloom & Shuell, 1981; Lindsey, Shroyer, Pashler, & Mozer, 2014). Spaced repetition requires the learner to practise content at either set or expanding intervals on a regular basis. There is no agreed spacing interval however several studies have shown that a longer gap of around 7 days between content review produces better results for longer term retention (Carpenter, Cepeda, Rohrer, Kang, & Pashler, 2012; Kang, 2016; Lotfolahi, & Salehi, 2017; Thalheimer, 2006). The method differs from rote learning as the spaced repetition process is spaced over longer intervals. Rote learning is often used as a method to learn the English language in Thai schools. Unfortunately, this method has been shown to be flawed and is often viewed as dull and monotonous (Yusica, 2014). Therefore a more fun approach is required that allows for constant review of the language being learnt.

Social networking tools may provide instructors with a platform that can be used to constantly review and practise content outside of

the classroom environment. Constant repetition through the use of technology may be able to assist students in the long term acquisition of English vocabulary and grammar structure. Unlike reading, grammar and vocabulary could be taught through a social networking application with relative ease. There are various social networking applications that could provide a suitable platform for such an approach. In regard to Thailand, the Line application has been found to be popular among users and thus more likely to be adopted for learning. The application has also been successfully used in previous studies (McCarty, Sato, & Obari, 2016; Van De Bogart & Wichadee, 2015).

Blended learning with its online and classroom elements can offer a more flexible approach to learning. For example, students that are absent due to work or illness can still participate in some of the learning activities. The online activities can also be used to practise and review the classroom content to ensure mastery of the content. The blended approach can also offer students an opportunity to practise content on a daily basis and interact with the instructor. Furthermore, students report that they receive better instruction and greater levels of support from a blended learning environment. Other benefits include reduced running costs to colleges and universities (Cavage, 2012; Lim, Morris, & Kupritz, 2007).

The concept of studying English using social networking applications is a relatively recent phenomenon. The small amount of collected data though is encouraging. For example, a study by Fattah (2015) found the WhatsApp social networking application to be useful for developing and improving English language writing skills and grammar. In the study, thirty students studying English at a Saudi Arabian university were split into control and experimental groups. The experimental group used the WhatsApp application whilst the control group was taught through a textbook. Pre and post tests were used to determine the differences in knowledge acquisition between the two study groups. The results from the study showed that the experimental group significantly outperformed the control group.

In another study, Cavus and Ibrahim (2009) examined the potential for learning technical English language vocabulary through regular push messages. The participants of the study were 45 1st-year undergraduate students at a Cypriot university. The study used a pre and post-test design. Over a nine day period, sixteen different short messages related to technical vocabulary were sent to the participants at repeated sequences. After the nine day period, a post-test was administered to the participants. The study found the students' level of knowledge showed significant positive differences between the pre and post-test scores. The use of a spaced repetition approach was seen as an important factor in the study's success.

Tower, Latimer and Hewitt (2014) suggest social networking tools have potential when used in educational contexts. Unfortunately, little quantitative evidence is available on whether the instructional use of social networking applications is as effective as a traditional classroom approach at increasing student knowledge. The majority of the data on this technology has been taken from questionnaires and interviews in relation to user acceptance and satisfaction.

The literature suggests that social networking applications can be used to teach English grammar and vocabulary. This can be achieved through regular practice through spaced repetition. Longer spacing intervals can help the learner retain knowledge for a longer period of time. Blended learning offers flexibility and students appear to be satisfied with such an approach. Currently, there is little evidence that social networking applications can be used to increase language learners' grammar and vocabulary levels. The following study aims to answer the following research questions: What is the difference in English vocabulary and grammar structure knowledge acquired between the students studying in a blended learning program through the Line application and students studying in a traditional classroom only based program? What is the difference in English vocabulary and grammar structure knowledge retained between the students studying in a blended learning program through the Line application and students studying in a traditional

classroom only based program? What are the students' levels of satisfaction when studying through the Line application in a blended learning program? What are the students' experiences and perceptions when studying through the Line application in a blended learning program?

Research Methodology

Research Design

The study employed a mixed methods approach that incorporated a pre-test and two post-tests, a post treatment 5 point Likert scale questionnaire and focus group interviews. It was not practical or viable to randomly assign the participants so therefore a quasi-experimental approach was used.

Participants

The participants of this study were 101, 3rd year hospitality students of Thai nationality and mixed gender. The students possessed the necessary characteristics needed for this study as they were taking English for specific purposes classes related to the hotel and hospitality industry. The students were split into approximately equal and convenient group sizes of 51 for the experimental group and 50 for the control group. Both groups were based on existing intact groups.

Research Instruments

The grammar tests used in this study were based on relevant questions adapted from the Cambridge University Press placement test (Cambridge University Press, 2010). The questions were related to previously identified content such as verb tenses, WH simple and auxiliary verbs (Charunsri, 2011; Prachanant, 2012). All tests were written using the same content but with reworded questions which were placed in a different order. The tests were produced in this manner to ensure the same level of difficulty. Before commencing the study, the adapted tests were examined for reliability through parallel/alternate forms testing with 62 students not involved in the

main study. The parallel/alternate forms testing were conducted over 3 days to avoid long term practice effect among the students. The tests were analysed and shown to have high correlation values (test 1-test 2=.88, test 1-test 3=.96 and test 2-test 3=.90). Content and face validity for all tests were checked by 3 experts in the fields of education and English at a Thai public university and deemed suitable for data collection. All tests were objective and based on multiple choice for grammar and gap fill for vocabulary recognition in order to avoid researcher bias in the marking. The tests were based on guidance issued by the United States Department of Education (2006) and the University of Washington (2008).

The study developed questionnaires used in previous related studies that had proven to be reliable and valid tools for data collection purposes (Aman, 2009; Hong, Lai, & Holton, 2003; Hsu, 2014; Pritchard, 2006; Simpson, 2012). The developed, 5 point Likert scale questionnaire contained 4 parts related to perception of learning, satisfaction, ease of use and media quality. Once completed, the questionnaire was translated from English directly into Thai by 3 suitably qualified and skilled lecturers at a Thai public university. The Thai version was checked for accuracy and reliability of the translation by back translating it to English. The questionnaire was tested through a series of pilot studies using different participants to those in the main study and all Alpha values were shown to be above .70 ('Author', 2017; 'Author', 2018a; 'Author', 2018b). These values can be considered reliable for final data collection (Manerikar & Manerikar, 2015). The results of the Cronbach's Alpha for the current study showed all of the values to again be greater than .70: Perception of Learning=.85, Satisfaction=.94, Ease of Use=.88 and Media Quality=.84. The questionnaire was also examined for validity by suitably qualified researchers at a Thai university to ensure the survey tool measured the variables of perception of learning, satisfaction, ease of use and media quality. The contents of the questionnaire were also evaluated during the pilot studies and were deemed to be clear by the participants. Semi-structured interviews were also conducted in

order to aid understanding of the questionnaire and test data. The questionnaire and interview data were collected on week 8. Following Ozyurt (2015) the questionnaire data was measured against a defined upper neutral value of 3.40 on a 5 point Likert scale using a one sample t-test (1.00-1.80=Strongly Disagree, 1.81-2.60=Disagree, 2.61-3.40=Neutral, 3.41-4.20=Agree and 4.21-5.00=Strongly Agree). Strong agreement to the questionnaire statements can be interpreted as highly positive whereas strong disagreement can be interpreted as highly negative. Thus, scores significantly over 3.40 could be interpreted as an endorsement.

Data Collection Procedure

The activities used in this study were based around visual picture type recognition activities, short answer gap fills and question and answer exercises. These activities were used to highlight and reinforce grammar structure and familiarize students with hospitality related vocabulary on a daily basis. The content spacing intervals for both groups were set at 7 days and based on previous research. For the experimental group, the content was spaced over a week and each vocabulary item was practised once every seven days over an 8 week period. The blended group learnt both in the classroom and through the Line application. For the control group, the content was practiced on a weekly basis in the classroom. Hence the content was mass taught once a week. Great care was taken to ensure each group had an equal amount of tuition time and were taught the same content using spaced review. The Line application was not adapted or altered in any way.

The pre-test was administered at the beginning of the semester (week 1) and the post-tests spaced on weeks 8 and 12 (see figure 1). The teaching element (treatment) stopped on week 8 in order to allow a 4 week gap so the researcher could determine knowledge retention and discount the effects of immediacy in the testing process. This method has been used in previous studies when initial

knowledge acquisition and longer term retention levels have been measured (Wu, 2014).
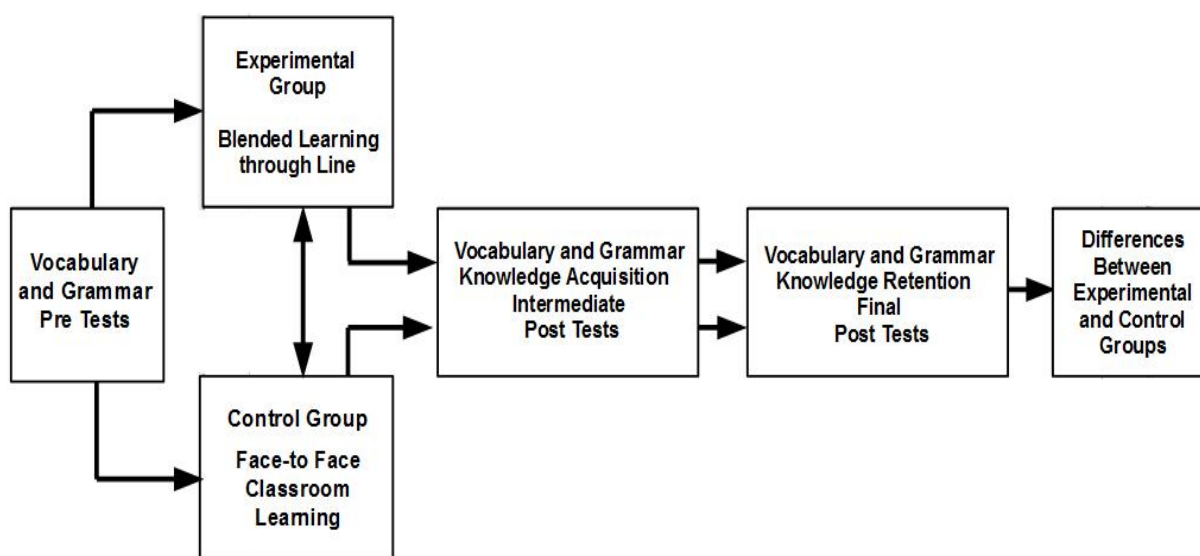
Figure 1. A diagram showing the pre-test, intermediate post-test and final post-test design based on: Wu (2014).

Data Analysis

The quantitative data collected from the pre and post-tests were analysed through independent t-tests, Cohen's d and descriptive statistics. The data collected from the questionnaire was analysed through one sample t-test and descriptive statistics. The interview data were analysed for patterns in the answers.

Results

In order to assess pre-study differences in proficiency levels the data from the pre-tests were analysed. The t-test was not significant, t (99) = .84, p =.404. The result indicates that the grammar pre-tests were not different. An independent samples t-test was also calculated to compare vocabulary pre-test differences between groups. The t-test was not significant, t (99) = 1.51, p =.134. The result indicates that the vocabulary pre-tests were not different.

Grammar Pre and Post-Tests

The initial analysis of the data showed both groups had made significant gains in grammar knowledge over the course of 8 weeks. The experimental group grammar pre-test score was 18.06 and the post-test 1 score was 29.06 this resulted in mean difference of 11. The control group grammar pre-test score was 17.30 and the post-test 1 score was 26.18 this resulted in a mean difference of 8.88 (see Table 1). Data analysis found the grammar pre and post-test 1 scores to be significantly different for both groups (<0.05). A further independent samples t-test was conducted to compare the differences (gains) in grammar acquisition levels between pre-test and post-test 1 for both groups. The t-test was significant, t (99) =2.06, p =.04, mean difference=2.12. The result indicates that the differences in grammar acquisition levels between pre-test and post-test 1 were different between the experimental and control groups. The experimental group was shown to have made greater gains in their grammar knowledge over the 8 week period.

The independent samples t-test was calculated to compare the differences in grammar retention levels between the pre-test and post-test 2 between both groups (see Table 1). The t-test was significant, t (99) =2.10, p =.04, mean=2.14. The result indicates that the differences in grammar levels between the pre-test and post-test 2 are different between the experimental and control groups. The experimental group was shown to have made greater overall gains in their grammar knowledge over the 12 week period.

Vocabulary Pre and Post-Tests

The initial analysis of the data showed both groups had made significant gains in vocabulary over the course of 8 weeks. The experimental group vocabulary pre-test score was 3.90 and the post-test 1 score was 43.84 this resulted in mean difference of 39.94. The control group vocabulary pre-test score was 4.70 and the post-test 1 score was 32.40 this resulted in mean difference of 27.70 (see Table 1). The data analysis found the vocabulary pre and post-test 1 scores to be significantly different for both groups (<0.05). A further independent samples t-test was calculated to compare the

differences in vocabulary acquisition levels between the pre-test and post-test 1 for both groups. The t-test was significant, *t* (99) =8.17, *p* =.00, mean difference=12.24. The result indicates that the differences (gains) in vocabulary acquisition levels between the pre-test and post-test 1 are different between the experimental and control groups. The experimental group was shown to have made greater gains in their vocabulary knowledge over the 8 week period.

The independent samples t-test was calculated to compare the differences in vocabulary retention levels between the pre-test and post-test 2 between group 1 and group 2 (see Table 1). The t-test was significant, *t* (99) =7.52, *p* =.00, mean=12.50. The result indicates that the gains in vocabulary levels between the pre-test and post-test 2 are different between the experimental and control groups. The experimental group was shown to have made greater overall gains in their vocabulary knowledge over the 12 week period.

Table 1. The results from the pre and post-tests showing the mean (M), standard deviation (S.D), number (n) of participants, t and significance values and Cohen's d.

	Group 1 (n=51)		Group 2 (n=50)		t	Sig.	Cohen's d
	M	S.D	M	S.D			
Grammar Pre-Post 1	11.00	5.06	8.88	5.29	2.06	.04	.41
Vocabulary Pre-Post 1	39.94	6.53	27.70	8.42	8.17	.00	1.62
Grammar Pre-Post 2	10.94	4.90	8.80	5.35	2.10	.04	.42
Vocabulary Pre-Post 1	37.16	7.25	24.66	9.33	7.52	.00	1.50

Questionnaire Data

All data from the questionnaire was measured against a determined upper neutral value of 3.40 (see Table 2). The results of the one sample t-test for perception of learning were considered to be significant. Intermediate values used in the calculations are as follows: t =18.94, df =50, p =.00 and the mean difference was = 1.05. The overall mean score for perception of learning was 4.45 and thus resulted in levels above 3.40. It can therefore be concluded that the values related to perception of learning differ from the upper neutral value of 3.40. The results of the one sample t-test for satisfaction were considered to be significant. Intermediate values used in the calculations are as follows: t =15.26, df =50, p =.00 and the mean difference was =1.01. The overall mean score for satisfaction was 4.41 and thus resulted in levels above 3.40. It can therefore be concluded that the values related to satisfaction differ from the upper neutral value of 3.40. The results of the one sample t-test for ease of use were considered to be significant. Intermediate values used in the calculations are as follows: t=17.47, df=50, p=.00 and the mean difference was =1.14. The overall mean score for ease of use was 4.54 and thus resulted in levels above 3.40. It can therefore be concluded that the values related to ease of use differ from the upper neutral value of 3.40. The results of the one sample t-test for media quality were considered to be statistically significant. Intermediate values used in the calculations are as follows: t =19.22, df =50, p =.00 and the mean difference was =1.18. The overall mean score for media quality was 4.58 and thus resulted in levels above 3.40. It can therefore be concluded that the values related to media quality differ from the upper neutral value of 3.40. The results of the questionnaire can be interpreted as a positive endorsement of the online learning aspect of the blended learning course.

Table 2. The results from the administered questionnaire showing the mean (M), standard deviation (S.D), number (n) of participants and t and significance values.

Group 1

	(n=51)		t	Sig.
	M	S.D		
Perception of Learning	4.45	.39	18.94	.00
Satisfaction	4.41	.47	15.26	.00
Ease of Use	4.54	.47	17.47	.00
Media Quality	4.58	.44	19.22	.00

Interview Data

The majority of students interviewed believed that regular contact with the instructor helped in developing good relationships. Students mentioned it was easier to ask a question through Line as opposed to asking in the classroom or making an appointment. The majority of students did not have any problems when using the Line application as a learning tool. The majority of students preferred to learn in a blended class. The advantages of the blended class were the ability for students to review content, a more fun and relaxed approach to learning and overall convenience. All students replied that they participated more through the Line application than in the classroom. The activities were seen as easier to join in with and all of the group could respond to the activity regardless of location. Many students suggested the use of the Line application had made them feel more confident in their English abilities. The constant daily practice had helped them remember. Observations made by the researcher found students' active online participation levels increased during the course. As the online part of the course progressed, answers to questions became quicker and more accurate. In regard to the traditional classroom, a 'snowball' effect made the review process problematic. The spacing of content over the course of the week in the blended learning class made the review process much easier and less problematic.

Discussion

As all mean values for the questionnaire data were over 4.21, it can be suggested that students were highly positive towards the use of the Line application for learning purposes. This can be backed up with data collected from the group interviews. In addition, the experimental group were shown to score significantly higher test score differences than students studying in the control group. Overall, the results showed there was a significant difference in English vocabulary and grammar knowledge gains between the students that studied in a blended learning program through the Line application and students that studied in a traditional classroom.

The pre and post-test 1 grammar scores for the experimental group revealed a mean gain of 11.00 between the two tests while the control group revealed a mean gain of 8.88. The results show that the mean difference is 2.12. In regard to the results of the pre and post-test 2 grammar scores, the experimental group showed a mean gain of 10.94 between the two tests while the control group showed a mean gain of 8.80. This resulted in a mean difference of 2.14. The differences in gains between both groups for the grammar pre-test to post-test 1 and pre-test to post-test 2 were found to be significant and the Cohen's d suggests the findings were of medium importance. As the results show higher gains in scores for students in the experimental group it can be suggested that there was not a disadvantage when studying grammar in a blended learning environment. Previous studies have found social media to be an effective platform for teaching English grammar. For example, Sirivedin, Soopunyo, Srisuantang, and Wongsothorn (2018) found improvements in students' grammar structure when studying solely through a social media platform. The results also mirror those found by Fattah's (2015) study where the experimental group taught through a social networking application significantly outperformed the class taught control group. In this regard, the ability to see and review structure on a daily basis could help explain the higher scores obtained by the experimental group.

The pre and post-test 1 vocabulary acquisition scores for the experimental group revealed a mean gain of 39.94 between the two

tests while the control group revealed a mean gain of 27.70. The results showed that the mean difference between groups was 12.24. In regard to the pre and post-test 2 vocabulary scores, the experimental group showed a mean gain of 37.16 between the two tests while the control group showed a mean gain of 24.66. The results revealed that the mean difference between groups to be 12.50. The differences in gains between both groups for the vocabulary pre-test to post-test 1 and pre-test to post-test 2 were shown to be significant. The Cohen's d value suggests the findings were of very high importance. The use of instructor led spaced review exercises and opportunities to revise content outside of the classroom, appears to have greatly benefited the students in the experimental group. In regard to vocabulary, Rott (1999) suggests six encounters with a word can be enough for full recall. In this respect, spaced review of content over the course of the study may have strengthened full recall of words. The results show there was little loss of knowledge over the four week gap between the two post-tests. The scores therefore reveal strong recall of the taught vocabulary. These results are similar to those found in other studies on vocabulary acquisition and retention. Spaced review of vocabulary items has been shown to aid longer term retention when compared to mass practice approaches such as rote learning (Bloom, & Shuell, 1981).

Data obtained from the questionnaire in relation to perceptions of learning was shown to produce a mean value of 4.45 and thus the value was shown to be significantly higher than the neutral value of 3.40. The data therefore shows that students believed the online activities and exercises were beneficial in raising their grammar and vocabulary levels. Data collected from the group interviews showed that learning through the Line application was popular. In addition, students felt constant daily practice and the ability to review content had helped them remember. The scores from this study and the related evidence from the questionnaire and interviews suggest that spaced review and practice have helped increase English vocabulary and grammar levels. Furthermore, data collected through the

questionnaire showed high levels of satisfaction among the students. The data backs up previous findings on social networking applications and blended learning (Cavage, 2012; Lim, Morris, & Kupritz, 2007; Van De Bogart & Wichadee, 2015).

Conclusion and Implications

The study found various benefits when using the Line application for learning purposes. The data showed that the majority of students preferred to learn in a blended class. In addition, the majority of students enjoyed the activities and suggested they were more fun, relaxed and interesting and also encouraged participation. Nearly all of the interviewees felt the content posted in the Line application group was useful for practice and review. In addition, students studying using the Line application were shown to have higher overall test scores in relation to knowledge acquisition and retention. Overall, students were found to be satisfied with the blended learning experience and recognised its many advantages. The future of education involves technology and online learning. In the future, students may not be able to or even want to study full time in a traditional classroom. It can therefore be suggested that where possible, instructors should consider integrating social networking applications into their courses. There are various practical and non-practical considerations though when using social networking applications in an educational environment. In this regard, policymakers and university administrators should aim to ensure that instructors have adequate technology skills and are aware of any issues when using such technology. Educators should be competent in the use of technology and support and create a culture that assists in its adoption. New teaching approaches must be developed that can be easily and freely adopted by the wider community. The findings from this study could be used to provide an improved university experience for hospitality students. Furthermore, the findings can assist instructors in identifying uses for social networking applications in language learning contexts.

Recommendations

This current study has answered several questions but has also provided questions for future research. The study could be repeated with larger group sizes to add strength to the current findings. In addition, it is recommended that further research focuses on varying the length of instruction and the space between post-test 1 and post-test 2. This could provide useful information on an optimum length of time for the spaced review process.

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