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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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 practice. 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 simple way to teach outside of the classroom and provide students some flexibility in their learning. This study examines whether the Line social networking/ short messaging 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 Rajamangala University of Technology Krungthep. The Line application was used as part of a blended learning course. Data was collected using a questionnaire, focus group interviews, pre and post English tests and observations. The results of the differences between the pre and post-tests suggested that students in the experimental group had higher grammar and vocabulary acquisition and retention levels when compared to the control group. The study also found students were satisfied with using the Line application as part of a blended learning course. The findings from this study suggest the Line application when used with a spaced repetition approach has potential as a tool for learning English. The method outlined in this study is relatively simple to reproduce and could be adapted by English instructors throughout the world.

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

การใช้สื่อสังคมเพื่อการเรียนการสอน: ศึกษาการใช้ไลน์แอบพลิเคชั่นเพื่อการเรียนการสอนคำศัพท์และไวยากรณ์ในมหาวิทยาลัยแห่งรัฐ

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บทคัดย่อ

การใช้สื่อสังคมเพื่อการศึกษาสามารเพิ่มความสนใจแต่งานวิจัยที่เกี่ยวข้องดังกล่าวมีไม่มาก สื่อสังคมสามารถพิสูจน์ได้ว่ามีประโยชน์ต่อการเรียนการสอนภาษา จากประโยชน์ดังกล่าวเห็นได้ชัดเจนในหลายประเทศ เช่น ประเทศไทยซึ่งนักเรียนนักศึกษาส่วนมากมีพื้นฐานภาษาค่อนข้างน้อย นอกจากนี้การใช้สื่อสังคมในการเรียนการสอนภาษาได้ทั้งนอกห้องเรียนและผู้เรียนสามารถเรียนรู้ได้แบบยืดหยุ่นหรือตามความสะดวก การศึกษานี้มุ่งเน้นการใช้สื่อสังคมคือไลน์แอบพลิเคชันสามารถส่งเสริมและมีความสัมพันธ์กับการเรียนการสอนแบบเว้นระยะห่าง ซ้ำ ๆ โดยที่ผู้เรียนสามารถเรียนรู้ได้นอกห้องเรียน กลุ่มตัวอย่างคือนักศึกษาสาขาการโรงแรมจำนวน 101 คนที่ลงทะเบียน

เรียนวิชาภาษาอังกฤษในมหาวิทยาลัย การใช้ไลน์
แอบพลิเคชันเป็นสื่อการเรียนการสอนไวยากรณ์ และ
คำศัพท์ และเป็นส่วนหนึ่งของการเรียนนอกห้องเรียน
แบบสอบถาม การสัมภาษณ์ คะแนนก่อนและหลัง
การเรียนการสอน และการสังเกตเป็นเครื่องมือใน
การเก็บข้อมูลดิบผลการวิจัยพบว่า ผู้เรียนในกลุ่ม
ทดลองมีผลการเรียนไวยากรณ์ และคำศัพท์สูงกว่า
ผู้เรียนมีความพึงพอใจในการเรียนการสอนโดยใช้ไลน์
แอบพลิเคชัน แบบผสมผสานทั้งในและนอกห้องเรียน
ผลการศึกษาครั้งนี้เสนอแนะใช้ไลน์แอบพลิเคชันกับ
การเรียนการสอนแบบซ้ำ ๆ เป็นสื่อการสอนที่มี
ประสิทธิภาพสูง การศึกษานี้เสนอแนะว่าผู้สอนภาษา
อังกฤษสามารถใช้วิธีการสอนแบบนี้ไปประยุกต์ใช้ได้
ทั่วโลก

คำสำคัญ: *การเรียนการสอนแบบผสมผสาน การสอน
แบบเว้นระยะห่าง ซ้ำๆ ไลน์แอบพลิเคชัน
ภาษาอังกฤษ*

Introduction

Tourism and hospitality are valuable parts of the Thai economy and offer employment opportunities for new graduates. In order to provide quality service, hotel staff require 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 but then find meaningful communication difficult (Charunsri, 2011; Nicholls, 2014; Panyawongngam, 2016; Prachanant, 2012; Yusica, 2014). To communicate effortlessly, hospitality graduates need lexical phrases and vocabulary relevant to their field. Furthermore, students must practise regularly to retain English language in the long term. For this to be achieved, new or adapted methods combined with 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 extent of students' technology acceptance and satisfaction. Little data is available on the effectiveness of social networking applications when used for teaching and to achieve learning outcomes (Tower, Latimer & Hewitt, 2014). Social networking applications may provide a platform for teaching and learning English when used in conjunction with a spaced repetition approach.

The purpose of this research was to measure the difference in English vocabulary and grammar structure knowledge acquired and retained by students studying in a blended learning program using the Line application when compared to students studying in a traditional classroom-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. This study aims to provide a free, 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 (White, 2017; White, 2018a; White, 2018b). This study can benefit all learners of English and is useful for all instructors wishing to use social networking applications for instructional purposes.

Literature Review

The most up to date figures taken in 2012, showed that nearly 10,000 students graduated with hospitality and tourism degrees from various universities across Thailand. Although there are a large number of graduates, the industry still faces a shortage of suitably qualified and trained 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 using the rote learning technique. 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. These are used to correctly ask and answer questions as well as to give information (Charunsri, 2011). In addition, greater levels of industry related vocabulary are also required for communication with hotel guests (Prachanant, 2012).

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. Research has shown spaced review to be a useful method for language learners (Bloom & Shuell, 1981; Lindsey, Shroyer, Pashler, & Mozer, 2014). Spaced repetition requires the learner to practise content at either set or increasing intervals on a regular basis. There is no agreed spacing interval but 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 out repetition process occurs over longer time 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 by students (Yusica, 2014). Therefore, a more fun and interactive approach is required that allows for constant review of the language being learnt.

Social networking tools may provide instructors with a platform that students can use to constantly review and practise content outside of the classroom environment. Constant repetition through the use of technology may assist students in the long term acquisition of English vocabulary and grammar structure. Grammar and vocabulary could be taught through a social networking application with relative ease.

There are various social networking applications that could provide a free and suitable platform for such an approach. In regard to Thailand, the Line application has been found to be popular among young users and thus more likely to be adopted for learning. The Line application has also been successfully used in previous studies for learning English (McCarty, Sato, & Obari, 2016; Vichienwanitchkul, 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 obligations or illness can still participate in some of the learning activities. The online activities can also be used to practise and review classroom content to ensure mastery. The blended approach can also offer students a daily opportunity to practise content 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 at colleges and universities. Social networking applications can be used to provide online content as part of a blended learning program (Cavage, 2012; Lim, Morris, & Kupritz, 2007).

The concept of studying English using social networking applications is relatively recent. 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 equal 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 English language experimental group significantly outperformed the control group.

In another study, Cavus and Ibrahim (2009) examined the potential for learning English language vocabulary through regular text 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 similar to Fattah (2015). Over a nine day period, sixteen different short messages were sent to the participants at consistent time intervals. After the nine day period, a post-test was administered to the participants. The study found the students' level of knowledge showed significant, promising 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 for 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.

Research suggests that social networking applications can be used to teach English grammar and vocabulary. This can be achieved through spaced out regular practice and review. 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 Line application is popular and widely used among young people in Thailand. The following study aims to answer the following research questions: What is the difference in English vocabulary and grammar structure knowledge acquired and retained between the students studying in a blended learning program through the Line application and students studying in a traditional classroom only 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. In addition, a 5 point Likert scale questionnaire and focus group interviews were also conducted after the experiment. It was not practical or viable to randomly assign the participants so therefore a quasi-experimental approach was used.

Participants

The 101 participants of this study were 3rd year hospitality students of Thai nationality and mixed gender. The students possessed the necessary characteristics needed for this study. The characteristics required were students taking English classes as preparation for a career in 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 that related to their university section class.

Research Instruments

The pre and post 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 content such as verb tenses, 'Wh' simple (What, Why, When, Where, Who and How) and auxiliary verbs that are known to cause problems for Thai students (Charunsri, 2011; Prachanant, 2012). All tests were written using the same content but with reworded questions placed in different orders. The tests were produced in this manner to ensure a consistent level of difficulty. Before commencing the experiment, the adapted tests were examined for reliability through parallel/alternate testing with 62 students not involved in the main study. The parallel/alternate forms testing were conducted over 3 days to avoid the effect of long term practice among the students. The 3 different versions of the test 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 agreed the tests were 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 followed guidance issued by the United States Department of Education (2006) and the University of Washington (2008).

The researcher developed questionnaires that had been used in previous related studies that were 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 the students' perception of learning, satisfaction, ease of use of the technology and media quality. Once completed, the questionnaire was translated from English directly into Thai by 3 qualified and skilled lecturers at a Thai public university. The Thai version was checked for accuracy and reliability of the translation by translating it back 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 (White, 2017; White, 2018a; White, 2018b). These values can be considered reliable for final data collection (Manerikar & Manerikar, 2015). The results of the Cronbach's Alpha for the main 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 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 and were understood 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 when students were no longer given content to learn. 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 of the blended learning program and technology.

Data Collection Procedure

The activities used to teach in this study were 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 spaced out intervals for both groups were set at 7 days and based on previous research (Thalheimer, 2006; White, 2018a). For the experimental group, the content was practised every seven days over an 8 week period, learning both in the classroom and using a blended learning approach through the Line application. For the control group, the content was practiced on a weekly basis in the classroom, for clarification the content was mass taught once a week. Great care was taken to ensure each group had an equal amount of teaching time and were taught the same content in spaced intervals. 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 occurred throughout 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 a one sample t-test and descriptive statistics. The interview data was 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. Students in the experimental group scored a mean average of 18.06 whilst the students in the control group scored a mean average of 17.30. The t-test was not significant, t (99) = .84, p =.404. The result indicates that the grammar pre-tests were not significantly different. A t-test was also calculated to compare vocabulary pre-test differences between groups. Students in the experimental group scored a mean average of 3.90 whilst the students in the control group scored a mean average of 4.70. The t-test was not significant, t (99) = 1.51, p =.134. The result indicates that the vocabulary pre-tests were not significantly 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's average grammar pre-test score was 18.06 and the first post-test average score was 29.06, resulting in a mean difference of 11. The control group's average grammar pre-test score was 17.30 and the first post-test score was 26.18, resulting in a mean difference of 8.88 (see Table 1). Data analysis found the grammar pre and first post-test scores to be significantly different for both groups (<0.05). An independent sample t-test was conducted to compare increases in grammar acquisition levels between pre-test and first post-test for both groups. The t-test was significant, t (99) =2.06, p =.04, with a mean difference between the experimental and control groups' grammar score of 2.12. The result indicates that the

increases in grammar acquisition levels between pre-test and first post-test 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 sample t-test was calculated to compare the grammar retention levels between the pre-test and second post-test between both groups (see Table 1). The t-test was significant, t (99) =2.10, p =.04, with a mean difference between the experimental and control groups' grammar score of 2.14. The result indicates that the increases in grammar levels between the pre-test and second post-test 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 pre and first post-test data showed both groups had made significant gains in vocabulary acquisition. The experimental group's vocabulary pre-test score was 3.90 and the first post-test score was 43.84, resulting in a mean difference of 39.94. The control group's vocabulary pre-test score was 4.70 and the first post-test score was 32.40, resulting in a mean difference of 27.70 (see Table 1). The data analysis found the vocabulary pre and first post-test scores to be significantly different for both groups (<0.05). An independent sample t-test was calculated to compare increases in vocabulary acquisition levels between the pre-test and first post-test for both groups. The t-test was significant, t (99) =8.17, p =.00, with a mean difference between the experimental and control groups' vocabulary score of 12.24. The result indicates that the increases in

vocabulary acquisition levels between the pre-test and first post-test 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 sample t-test was calculated to compare the vocabulary retention levels between the pre-test and second post-test between experimental group and control group (see Table 1). The t-test was significant, t (99) =7.52, p =.00, with a mean difference between the experimental and control groups' vocabulary score of 12.50. The result indicates that the increases in vocabulary levels between the pre-test and second post-test 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.

	Experimental Group 1 (n=51)		Control Group 2 (n=50)				Cohen's d
	M	S.D	M	S.D	t	Sig.	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 result of the one sample t-test for perception of learning was 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 the upper neutral value of 3.40. The result of the one sample t-test for satisfaction was 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 the upper neutral value of 3.40. The result of the one sample t-test for ease of use was 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 the upper neutral value of 3.40. The result of the one sample t-test for media quality was 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 the upper neutral value of 3.40. The results from the questionnaire data can be interpreted as a positive endorsement of the online learning aspect for 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.

	Experimental Group 1 (n=51)			
	M	**S.D**	**t**	**Sig.**
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 interviewed students believed that regular contact helped in developing a good relationship with the instructor. Students mentioned it was easier to ask a question through Line as opposed to asking in the classroom or by making an appointment. The majority (94%) of students did not have any problems when using the Line application as a learning tool. The majority (90%) 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 with the Line application than in the classroom. The activities were seen as easier engage with because students in the group could respond to the activity regardless of their 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 the students remember. Observations made by the researcher found students' active online participation levels increased during the

course. As the online part of the course progressed, questions were answered quicker and more accurately.

Discussion

As all mean values for the questionnaire data were over 4.21, it can be suggested that students felt highly positive regarding 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 in the tests than students studying in the control group. Overall, the results showed there was a significant difference in English vocabulary and grammar knowledge increases between the students that studied in a blended learning program using the Line application and students that studied in a traditional classroom.

The pre and first post-test 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 second post-test 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 first post-test and pre-test to second post-test 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 had significantly outperformed the 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 first post-test 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 the groups was 12.24. In regard to the pre and second post-test 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 the groups to be 12.50. The differences in gains between both groups for the vocabulary pre-test to first post-test and pre-test to second post-test were shown to be significant. The Cohen's d value suggests the findings were of very high importance. The use of instructor-led spaced out 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 out 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 out 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 significantly higher than the neutral value of 3.40. The data therefore shows that students believed the online activities and exercises were beneficial in increasing their grammar and vocabulary knowledge. Data collected from the experimental 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 from this study backs up previous findings on social networking applications and blended learning (Cavage, 2012; Lim, Morris, & Kupritz, 2007).

Conclusion and Implications

This 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,

interesting and 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 using the Line application to study were shown to have higher overall test scores in relation to knowledge acquisition and retention. Overall, students were found to be satisfied with the English 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 encourage 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, this study's findings can assist instructors in identifying uses for social networking applications in language learning contexts.

Recommendations

This paper's 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 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 out review teaching method.

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