



ELSEVIER



Available online at [www.sciencedirect.com](http://www.sciencedirect.com)

ScienceDirect

Procedia - Social and Behavioral Sciences 174 (2015) 2634 – 2638

Procedia  
Social and Behavioral Sciences

INTE 2014

# Effects of English spelling learning experience through a mobile LINE APP for college students

Ru-Chu Shih<sup>a</sup>, Chunyi Lee<sup>a</sup>, & Tsai-Feng Cheng<sup>b</sup>

<sup>a</sup>National Pingtung University of Science and Technology, Pingtung 912, Taiwan

<sup>b</sup>National Kaohsiung Normal University, Kaohsiung, 802, Taiwan

---

## Abstract

The growing development in communication technology changes personal habit in retrieving information. Therefore, this advance has created substantial opportunities for educators to engage students in language learning. This study aims to discover the effects of integrating ubiquitous learning into an English spelling course for college students through the blended teaching approach. A total of 29 college students participated in a 6-week experiment. Data collected from a pre-assessment, a post-assessment, and a survey questionnaire on learning experience were adopted as the instruments and analyzed in this research. In accordance with the results, that the students acquire the ability and the skills in spelling is observed. Moreover, a positive learning mood is shown through this App-based spelling learning. Finally, these results might shed lights on ESL instructors with enthusiasms in mobile assisted language learning and spelling ability enhancements.

© 2015 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Peer-review under responsibility of the Sakarya University

*Keywords:* blended teaching, LINE APP, mobile assisted language learning (MALL)

---

## 1. Introduction

With the advanced development of information and communication technology, educators have had substantial opportunities to integrate the technology into language learning and that benefits the students' learning achievement (Chinnery, 2006). The integration of electronic learning (E-learning) into tradition learning via blended learning (BL) approaches has been widely accepted in higher education (Evans, 2008). Previous research further proves that blended learning/ the blend teaching approach have positive impact on learning achievement (Osguthorpe &

\* Corresponding author. Tel.: +00 -000-0000-0000  
*E-mail address:* [vincent@npust.edu.tw](mailto:vincent@npust.edu.tw)

Graham, 2003; Shih, 2010, 2013). Even though E-learning characterizes its flexibilities in learning paces, time, and spaces (Jia et al.: 2012), the immobility of such working station as desktop PCs and e-learning platforms cause the lag in learner's reading pushed information and the time gap in interaction between educators and learners, which eliminates learning effectiveness. In other words, learner's achievement depends on the accessibility and convenience for a learner. The advancing mobile technology, then, has this problem solved. The increased mobile technology such as smartphones and other mobile devices has applied to support language learning (MALL). The affordances of MALL and the capabilities of smartphones are mutually supplementary. The portability of mobile devices with internet provides users with great conveniences and a learner-centered learning mode which allows real-time learning (Evans, 2007). Additionally, the functions and the user's friendly interface of smartphones, (e.g. recording) is even superior to a desktop PC, typically having a relatively large screen and an operating system capable of running general-purpose applications. These features support the affordance of MALL the ubiquitous access to learning that the learners have reception. With those advantages of mobile tech and MALL, E-mails (Thornton & Houser, 2005), podcast (Evans, 2007), and recording features (Gromik, 2012) of mobile phones have been studied for MALL. These researches, consequently, demonstrated strengths, effectiveness, and positive feedbacks from the learners. However, few studies, or scattered case studies on smartphones APPs for ESL learning through blended learning has been done. This paper aims to ascertain the effectiveness and perceptions of learners in the utilization of APPs on a smartphone through BL in English spelling course in a university of science and technology. Additionally, the learner's learning through a smartphone APP for ESL learning is also delved.

## 2. Method

In this blended teaching with LINE App, 29 subjects were involved. Lectures were given in class while practices were given via LINE App on a smartphone. Through this teaching and learning model, the students are expected to acquire the skills of spelling.

University students from different colleges volunteered to join in this case study run in the Basic English course on English spelling, an optional course. 29 participants of a spelling course engaged in this case study involving with both qualitative and quantitative methods. For discovering learning effectiveness of the students, we conducted a pre-test and a post-test on them. This study aims to exploit if the students make progress in their English spelling ability by doing assignments pushed onto LINE application on their smartphone, besides the traditional classroom learning. This optional course of English spelling runs for 18 weeks. The experiment was carried out in the first 6 weeks when phonics and K.K. were taught based on the syllabus.

In class teaching, short vowels, consonants, distinguishing stress, and syllables were the teaching aims in class within these 6 weeks. Consonants were taught in the first two hours to construct the base of word spelling. In the following 5 weeks, one short vowel was introduced in the weekly lecture. In the lesson, phonetics and K.K. were also taught to pronounce and note the pronunciation of a word. As the course went on, word selection varied from monosyllabic, multisyllabic, to polysyllabic words. Also, marking the stress was taught.

For practices after class, the 29 participants were invited to join an online group opened by the teacher on LINE App. One exercise with 4 words was pushed to the LINE group Spelling on Mondays, Wednesdays, and Thursdays in the form of an audiovisual file. Their answers should be submitted by 12 a.m. with Chinese translation via personal dialogue window instead of posting them in the LINE group window. The teacher used the recording application of a smartphone to record his pronunciation of four selected words chosen from either handouts, or vocabulary list of TOEIC, based on the topic of each week. The level of difficulty of each exercise gradually became difficult in word selection from and then out of handouts, as well as in vocabulary with monosyllable and then with polysyllable. All participants were requested to look up their spelling in a dictionary to assure their correct spelling. When the teacher received the notice from LINE App, the teacher sent an icon to give praise to the students' excellent job, or gave instructions to guide them do reattempt. The test questions in pre- and post-assessment are identical to examine the participants in five aspects, including consonants, vowels, alphabet order by sounds, syllables, and stress. By comparing the results of both assessments, we could learn an individual's achievement in these different parts.

### 3. Results & Discussion

Table 1. Results of Paired Sample t test on the students' performance

		Paired Difference					t	df	Sig. (2-tailed)
		Mean	SD	Standard error mean	95% Confidence Interval of the Difference lower upper				
Pair 1	whole pretest-posttest	-12.0	9.06	1.68	-15.48	-8.58	-7.15	28	.000
Pair 2	precon-postcon	.068	1.25	.23	-.40	.54	.29	28	.769
Pair 3	prevowel-postvowel	-2.17	1.58	.29	-2.77	-1.57	-7.39	28	.000
Pair 4	prephoneme- postphoneme	-.82	1.77	.32	-1.50	-.15	-2.51	28	.018
Pair 5	presyllable- postsyllable	-.86	1.45	.27	-1.41	-.30	-3.18	28	.004
Pair 6	prestress-poststress	-.27	1.41	.26	-.81	.26	-1.05	28	.302

Table 1 shows the results of paired sample t test on the students' performance, including the pre- and post-assessment of the overall performance, consonant learning, vowel learning, phoneme awareness, syllable learning, and stress marking. Among these six areas, the overall performance, vowel learning, scramble, and syllable learning reached significant level ( $t=-7.15$ ,  $df=28$ ,  $sig=.000$ ;  $t=.29$ ,  $df=28$ ,  $sig=.000$ ;  $t=-7.39$ ,  $df=28$ ,  $sig=.018$ ;  $t=-3.18$ ,  $df=28$ ,  $sig=.004$ ).

To acquire spelling ability, a learner should be able to listen to vowels and consonants and to listen to phonemes and syllables. These figures in Table 1 present that the students have made significant progress in their overall achievement in vowel learning, phonemes by sound, and syllable marking after incorporating mobile LINE APP into English spelling class. The outcome demonstrates that with an intensive practice, as be carried out in this case study, can help the learners distinguish vowels. Additionally, the learners can note down alphabets of a word by listening to its pronunciation. They have developed the ability in distinguishing syllables in a word, which is crucial to spell a word in segments with its pronunciation.

Table 2. Descriptive Results of the Survey Questionnaire

	N	Min.	Max.	Mean	SD
SEX	29	1.00	2.00	1.3939	.49620
College	29	1.00	5.00	2.3030	1.38033
A1	29	1.00	5.00	3.2424	.79177
A2	29	1.00	5.00	3.6970	1.15879
A3	29	2.00	5.00	3.4242	.70844
A4	29	2.00	5.00	3.5152	.87039
B1	29	1.00	5.00	3.9091	.84275
B2	29	2.00	5.00	3.9697	.72822
B3	29	2.00	5.00	4.0606	.89928
B4	29	2.00	5.00	3.9394	.82687
B5	29	3.00	5.00	4.0909	.76500
B6	29	2.00	5.00	3.6970	.98377

B7	29	3.00	5.00	4.1515	.71244
B8	29	2.00	5.00	4.0909	.76500
C1	29	2.00	5.00	3.7879	.73983
C2	29	2.00	5.00	3.8485	.66714
C3	29	2.00	5.00	4.0303	.84723
C4	29	2.00	5.00	3.8788	.78093
C5	29	2.00	5.00	4.0303	.80951
D1	29	3.00	5.00	4.1515	.66714
D2	29	3.00	5.00	4.1515	.66714
D3	29	2.00	5.00	3.7273	.87581
D4	29	1.00	5.00	3.5455	.97118
D5	29	1.00	5.00	2.4848	1.20211
D6	29	1.00	5.00	3.5152	1.17583
D7	29	2.00	5.00	4.0606	.86384
E1	29	3.00	5.00	4.2121	.59987
E2	29	3.00	5.00	4.0606	.70442
E3	29	3.00	5.00	3.9697	.72822
E4	29	3.00	5.00	3.8788	.64988
E5	29	2.00	5.00	3.7576	.90244
F1	29	3.00	5.00	4.1818	.58387
F2	29	3.00	5.00	4.0909	.67840
F3	29	2.00	5.00	3.9394	.86384
F4	29	1.00	5.00	3.7879	.92728
F5	29	3.00	5.00	4.1818	.72692

Table 2 shows the results of the students' satisfaction toward English spelling learning. The 34 questions of the questionnaire obtained mean scores ranging from 2.4848 to 4.4000, indicating the students' possess moderate to high learning satisfaction toward incorporating mobile LINE APP into English spell learning. Particularly, QD5: I won't send the answers to my teacher because I am afraid of giving the teacher bad impression on me obtained a mean score of 2.4848, indicating the students would still send the answers back to the teachers and are not afraid of giving the teacher bad impression. Also, QA1: I always open the audio file on LINE APP when I receive a message from my teacher obtained a mean score of 3.2424, indicating the students moderately agreed that they would either respond the message right away or postpone it till later.

In regarding to the development of the ability of English spelling via LINE APP of mobile devices, QB7: Doing exercises after class let me review spelling rules taught in class constantly? reached a mean score of 4.1515, demonstrating that these after-class exercises keep the learners getting handful with the spelling rules. So that QB8: After-class exercises can definitely strengthen my ability in English spelling gained the mean score of 4.0909. This revealed that learning English spelling with LINE APP on a smartphone is found positive results in terms of developing the learning habits of spelling learning.

From the aspect of learner's learning emotion, QD1: Positive remarks and comments from the teacher encourage me and make me feel more confident in learning spelling and QD2: The reply from the teacher can motivate me to do these after-class exercises are both obtained the mean score of 4.1515, while QD6: As I listen to new words in

the exercise recording on LINE APP via the smartphone, I feel less confident in providing my answers gained a mean score of 2.4848. These figures present that the learners do need compliments and admirations to keep them up with the learning track and build up their confidence in learning English. Therefore, the learners had actually built up a certain level of confidence to face the challenge in vocabulary, as the result of QD6 shows in Table 2.

For the practical use of applying LINE APP on mobile devices to learning English, QE1: I can study English on LINE APP whenever I can access to the Internet gained a mean score of 4.2121. This result demonstrates that LINE APP can be a very useful and convenient tool to learn English. QF1: Learning English with a smartphone is interesting as if the internet access is stable and it is compulsory application in a course, reached the mean score of 4.1818. and QF5: Overall, I think LINE APP on a smartphone as a learning device can benefit English learning obtained the mean score of 4.1818. Both figures indicate that the learners hold a positive attitude toward the application of LINE APP on a mobile device to learning English.

#### 4. Conclusion

As information and communication technology is advancing, e-learning leads learning to cross the border of a classroom space and characterizes flexibilities in learning pace, time, and spaces. The mobile technology, then, increase the accessibility and convenience that boost the learning effectiveness. Research on smartphones for mobile assisted language learning (MALL) has presented positive results, few researchers, however, have studied APPs on a smartphone for MALL. The results expose that this case study ascertains the effectiveness and perceptions of learners in the utilization of APPs for smartphones through BL in English spelling course in a university of science and technology. The students have developed the capabilities in English spelling. The results of the assessments also demonstrate a significant outcome in learning achievement of all the participants. To inspect in the statistics of the results of pre-assessment and post-assessment, the participants made a good progress in the overall achievement. They especially made an obvious progress in listening to vowels, phonemes, and syllables.

In addition to the progress made in acquiring spelling ability and the development of learning habits in English spelling, the questionnaire reveals learner's positive learning mood in learning spelling. The learners have developed their confidence in learning spelling and no fear of learning new vocabulary by listening to vowels, consonants, and syllables. As they received the instructions for spelling correction in exercises, they could still do and submit their reattempt to complete their assignment. The teacher's reply, in all, plays an important role in driving the learners to complete each exercise on a smartphone.

Consequently, this case study presents a promising future in applying LINE APP, or other similar APPs on a smartphone to ESL learning, for it is not restricted to learning pace, time, and spaces for learners. Furthermore, it the learners benefits from the interaction of this mobile learning in terms of their learning emotion.

#### References

- Chinnery, G. M. (2006) Emerging Technologies Going to the MALL: Mobile Assisted Language Learning; *Language Learning & Technology*, 10 (1), 9-16.
- Evans, C. (2008). The effectiveness of m-learning in the form of podcast revision lectures in higher education. *Computers & Education*, 50(2), 491-498.
- Gromik, N. A. (2012). Cell phone video recording feature as a language learning tool: A case study. *Computers & Education*, 58(1), 223-230.
- Jia, J., Chen, Y., Ding, Z., & Ruan, M. (2012). Effects of a vocabulary acquisition and assessment system on students' performance in a blended learning class for English subject. *Computers & Education*, 58(1), 63-76.
- Osguthorpe TR Granha RC. Blended learning environments. *Quarterly Review of Distance Education* 2003; 4(3), 227-233.
- Shih, R. C. (2013). Effect of using Facebook to assist English for Business Communication course instruction. *The Turkish Online Journal of Educational Technology*, 12(1), 52-59.
- Shih, R. C. (2010). Blended learning using video-based blogs: Public speaking for English as a second language students. *Australasian Journal of Educational Technology*, 26(6), 883-897.
- Thornton, P., & Houser, C. (2005). Using mobile phones in English education in Japan. *Journal of Computer Assisted Learning*, 21(3), 217-228.