Engineering Students' perceived Usefulness and Attitudes toward VocBlast in Learning Specialized Vocabulary

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The current study attempts to investigate the perceived usefulness and attitudes of using VocBlast between genders. The study employed a survey method in collecting its data among 129 students studying at a higher education level in the East Coast of Malaysia. The results from the study revealed that both male and female students did not differ in their perceived usefulness and attitudes when playing VocBlast. This is due to the fact that the app is still new to them, and, thus more time is required to make them familiar with the games in the app.

Keywords: vocabulary, mobile app, gender.

1. Introduction

There is a growing body of literature that shows that vocabulary app is used by adult learners to learn foreign or specialized vocabulary. In Malaysia, for instance, a mobile app namely I-MMAPS was developed to learn Iban. Chachil, Engkamat, Sarkawi and Shuib (2015) surveyed 30 non-native speakers of Iban learning the vocabulary of the language. The main finding of the study revealed that the app promoted positive interest among the participants in learning the language. Shih, Lee and Cheng (2015) identified that college students demonstrated a positive learning attitude toward vocabulary, in particular spelling, using LINE APP. Meanwhile, Wu (2015) showed that the use of Word Learning-CET6 among medical school students assisted them to obtain direct and indirect learning of specialized words in medicine in the form of wordlist. It helped them to know spelling, pronunciation and Chinese definitions of the targeted words. A study conducted by Hong, Hwang, Tai and Chen (2014) found that the use of EVL@S improved students' confidence level in storing the vocabulary they have learnt. From the literature for the past five years that are presented, it seems that the use of specialized engineering vocabulary integrated in an app has not been investigated. Also, past studies on gender in the use of vocabulary app have not been received attention. This paper, therefore, attempts to gauge engineering students' opinions on their perceived usefulness as well as attitudes when they are assigned to play VocBlast to learn engineering and technical vocabulary.

2. Methodology

A vocabulary mobile app i.e. VocBlast is used as the research material in this study. Samples for the study were engineering students in a technical university in Pahang. There were 81 males and 48 females, making a total of 129 students participated in the current study. An adapted questionnaire from Technology Acceptance Model (TAM) is used as the instrument for the current study. The reliability statistics shows that the Cronbach Alpha is .96. It entails that the instrument is reliable to be used as the alpha value is greater than .70 (Nunally & Durham, 1978). The procedures of collecting the data began with requiring students to sit for a pre-test. Two (2) iPads were provided to them as to ensure that they can play VocBlast in the class. In groups, they spent 30 to 40 minutes playing all the games in the app. Later, they were required to take a post-test and answer an online survey. However, in this paper, only data from the survey is reported. Statistical Package for the Social Science (SPSS) Version 21 was used to analyze the data. Normality of data was checked and it was found to be from a normally distributed population while t-test was employed to answer the research questions of the study.

3. Results and Discussion

The descriptive analysis in Table 1 shows the mean scores of perceived usefulness between genders in using VocBlast.

	Gender					
	Male			Female		
	M	SD	n	M	SD	n
Mean scores of perceived usefulness	4.07	.60	81	3.99	.56	48

Table 1: Descriptive Statistics for Mean Scores of Perceived Usefulness

Meanwhile, Table 2 shows the results of independent samples t-tests to compare the perceived usefulness scores between genders. There was no significant difference in scores for both genders, males (M=3.96, SD=.69) and females (M=3.99, SD=.56); t (.78) =11, .19 (two-tailed).

	95% CI for Mean Difference		
	Sig. (2 tailed)	t	df
.18, .11	.19	.78*	127

** $p < .05$.*

Table 2: Results of independent samples t-test for Mean Scores of Perceived Usefulness

The results of the study stood in contrast to Gaspar's (2016) study. Though Gaspar (2016) did not specifically compare male and female students' perceived usefulness on the use of Ilokano to Go; a vocabulary app, the study however, showed that students who were interviewed perceived that the app was very useful to learn Philippine diaspora. Such inconsistency in the current study might be due to unfamiliarity of playing VocBlast as the app is still new to the students.

Meanwhile, Table 3 shows the descriptive analysis of mean scores in attitudes between genders toward using VocBlast.

	Gender					
	Male			Female		
	M	SD	n	M	SD	n
Mean scores of perceived usefulness	4.07	.60	81	3.99	.56	48

Table 3: Descriptive Statistics for Mean Scores of Attitude

	95% CI for Mean Difference		
	Sig. (2 tailed)	t	df
-.09, .12	.42	-.81*	127

Table 4: Results of independent samples t-test for Mean Scores of Attitude

Table 4 shows the results of an independent samples t-test for mean scores of attitudes. It demonstrates that both genders did not differ in their attitudes of using VocBlast as males' scores are (M=3.96, SD=.69) while females' scores are (M=4.05, SD=.55); t (-.81) =12, .42 (two-tailed).

The results of the study are in agreement with those obtained by Liaw and Huang (2015) that showed that the use of APP-based had no significant gender difference in terms of their attitudes using the app. However, the results of the current study do not support Yau and Cheng's (2012) study on gender in using m-learning. Their study showed that male students were self-reliant unlike their female counterparts in using technology. Meanwhile, Viberg and Grönlund (2013) found that gender seemed to be the factor that differentiates the attitudes toward using m-learning. This result of no significant difference in the mean scores of attitudes between genders concerned with the time spent in playing VocBlast as they were only provided with 30 to 40 for the task.

4. Conclusion

In conclusion, it was found that there were no significant differences in perceived usefulness and attitudes toward using VocBlast between genders. Therefore, an important pedagogical implication from the results of the study indicates that teachers need to ensure that

they need to tie-up their students' aptitude with the resources employed in learning vocabulary (Ali, Mukundan, Baki & Ayub, 2012). In the current study, it seems that the the as VocBlast was found to be useful for supplementary material in learning engineering and technical vocabulary (Ali & Ghazali, 2015).

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