

A Survey on Learners' Attitudes of Using GBL "Speaking English Fluently" APP in Language Learning

Jimin Yin^a, Feng Du^{a*}, Jin Chen^a, Xuesong Zhai^a
School of Foreign Studies, Anhui Jianzhu University, China
^{*}dufeng-aiai@foxmail.com

Abstract: This research aims to investigate the contributing factors of learners' attitudes towards using game-based learning APP— "Speaking English Fluently" —to support their language learning. There were 70 students randomly selected who participated in using this APP, and a questionnaire with acceptable instruments was offered for their anonymous evaluation. SPSS 19.0 was used to analyze the correlation and multiple regression between variables. The results showed that the students' preferences toward this APP were significantly influenced by the usefulness and parental support. To our surprise, ease of use and facility are unrelated to it. The further theoretical and practical implications are discussed as followed.

Keywords: game-based learning, TAM, Learning attitude, Language learning

1. Introduction

With the rapid development of computer and multimedia technologies, more and more attentions have been paid to the game based learning (GBL) (Hwang&Wu, 2012). Researchers have revealed that educational computer games could be an effective way for acquiring knowledge in a more interesting learning environment (Cagitay, 2007). Game based learning is a new approach by which students could gain specific technical skills, new ways of thinking, and different learning preference (Obliger & Oblinger, 2005), which also could enhance students' learning interest and motivation. According to some past researches, it was indicated that games have the potential to draw students into the learning process and to encourage them to participate through a more interactive environment (Gosen & Washbush, 2004).

In view of the above-mentioned facts, the researchers indicated that games have great potential for improving the students' learning achievements. However, the results may vary in some research, for example, Hong Cheng (2009) pointed that negative impact of using digital game-based learning approach could occur, such as poor learning outcomes and increasing the learners' self-alienating behaviors. So it is demanded that which factors influence the learning attitude towards game-based learning, and few studies were carried out to research the contributing factors toward learners' attitude.

This study, based on the application "Speaking English Fluently", aims to analyze the factors accounting for learning attitude in GBL context, and predict the future research tendency.

2. Theory foundation and hypotheses

Technology acceptance model (TAM) verified that perceived usefulness and perceived ease of use are identified as the main determination for individuals' behavior intention to use information system. Grounded in TAM, many researchers set perceived usefulness and perceived ease of use as two variables in their studies, aiming to find out the relationship between usefulness and ease of use and whether two variables influence the learning attitude after game-based learning, and TAM has become one of the most widely used and empirically validated models within information systems research (King and He, 2006; Legris, Ingham and Collertte, 2003). It has been applied to different technologies and has been tested in various contexts (Legris et al., 2003). We thus hypothesize:

H1. Usefulness positively affects learning attitude in GBL context.

H2. There is a positive relationship between ease of use and learning attitude in GBL context.

Besides, Parental view and support on information technology have extensively affected the application of GBL. Researchers have attempted to find out how parenting styles and rules affect media use of children and adolescents (Valcke, Bonte, De Wever and Rots, 2010). Discussing on an educational context, research on information technology integration has traditionally considered the home environment as a basis for extending school activities beyond classroom wall (Blanchard & Oliver, 1999). Parents' support has influenced a lot in playing games at home, and in view of the game learning, if parents support GBL, it will enhance the motivation of learning. We thus hypothesize that:

H3. Perceived parental supports positively affect the learning attitude.

Moreover, the facility has to be taken into consideration, since the quality level of facility used in GBL learning has an influence on learners' attitudes to some extent, for example, the display quality would have relationship with learners' audio stimulation, and the capacity of ROM and RAM may directly influence whether learning app could be well operated. We thus hypothesize:

H4. Facility of device has positive relation with learning attitude.

3. Methodology

70 students (aged 20-25years) from different grades and departments in Anhui Jianzhu University were invited to participate in the research. They completed the questionnaire respectively, anonymously in the presence of the researcher. Aiming to guarantee the quality of the questionnaire, we gave some gifts in return to ensure that all participants treated the experiment seriously.

The GBL app named *Speaking English Fluently* was chosen as the representative sample platform in this research. The context and function were performed in the Table 1. The same App was downloaded by their own smart phone and the participants were asked to play the game in their dormitory at similar internet speed and similar facility. Then, all players followed the same game step to read and imitate the sentence. After finishing the GBL, the participants began to do the questionnaire. Finally, the date was calculated by SPSS 19.0 to investigate which factors have close relation with the learning attitude.

Table 1: The simple function division of the Fluent English in Speaking.

Order	Content	Function
Part1	Record of courses	Record and show the regular process of your learning
Part2	Practice	Correct your pronunciation and learn new words
Part3	Category	Find what you want to learn and chose the suitable module
Part4	Communication	Communicate with others, share the learning skills and find interesting thing

The questionnaire developed by Tsai et., (2001) was adapted and adopted to measure the learning perception. The internal reliability index and alpha value show good reliability in internal consistency.

4. Result

Exploratory factor analysis was carried out to figure out whether these data reflect the suggested factors. There were four-factor structures which explained more than 70% of the variance among the items. In general, these scales could be considered reliable and valid.

Table 2 Exploratory Factor Analysis

Variable	Loading	Cronbach' s a	Composite Reliability
Usefulness	0.507~0.767	0.864	0.863
Ease of use	0.602~0.752	0.840	0.842
Facility	0.654~0.860	0.767	0.766
Parental support	0.565~0.869	0.575	0.593
Learning attitude	0.565~0.671	0.641	0.689

Seen from Table 3, every variable has correlation with each other except for the facility and learning attitude, and for deepening into their relationship regression analysis was conducted. As shown in table

Table 3.Means, Standard Deviations and Correlations.

Variable	Mean	S.D	1	2	3	4	5
Usefulness	3.8	0.82					
Ease of use	3.7	0.92	.6036**				
Facility	3.5	0.89	.03	.02			
Parental support	3.7	0.85	.34**	.38**	-.03		
Learning attitude	3.7	0.80	.57**	.52**	.15	.42**	

4, the result from regression supported hypothesis 1 and 3. Usefulness ($\beta=0.37$, $t=2.503$) and parental support ($\beta=0.24$, $t=2.324$) had significant impact on learning attitude based on GBL. On the contrary, hypothesis 2 was not supported with a statistically significant relationship between ease of use ($\beta=0.15$, $t=0.987$) and learning attitude. To our surprise, hypothesis 4 is not established as well ($\beta=0.15$, $t=1.526$).

Table 4. Regression analysis

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	sig
Usefulness	0.35	0.141	0.37	2.50	0.02
Ease of Use	0.12	0.124	0.15	0.98	0.33
Facility	0.13	0.083	0.15	1.52	0.13
Parental Support	0.26	0.112	0.24	2.32	0.02

Note: Dependent Variable: attitude toward English learning

5. Discussion

The research aims at investigating which factors influenced the learning attitude in GBL context. The experimental results reveal that usefulness and parental supports have a positive and necessary relation with learning attitude. Therefore, if parents are more acquainted with this learning model, and encourage children to use GBL, students' attitude will be enhanced significantly. Additionally, more useful game software should be designed to fit students' personalized learning custom and tendency. Different from the hypotheses, perceived ease of use and facility do not conduct a significant effect on learning attitude. The possible explanation may be the utility of using smart phone, which is familiar to Chinese undergraduates, and the function of smart devices are assimilated, thus it is easy to learn how to operate, and facility and ease of use have little influence on attitude.

However, our findings could be limited because that experiment was conducted in one college with limited sample in similar study environment. Therefore, we suggest that future research should be carried out with larger sample from different learning environments and age levels.

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