

Online Language Games for Pre-Degree Students

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ABSTRACT

Students like to play online games and some of them are found to be addicted to certain online games. However, when ask about playing educational games especially language games, the responses are not very encouraging. For many, language games are for juvenile, and not suitable for college level students like them. This study intends to show that language games are relevant even to college level students. Several online games were developed based on the learning outcomes of an undergraduate English language course. The games were designed at different difficulty levels based on the Bloom's Taxonomy. 34 pre-degree students (7 males and 27 females) from Universiti Teknologi MARA (UiTM) Negeri Sembilan participated in the study. They were asked to try the games and give feedback on what they think of the games. Results of the survey showed that the students were motivated to play the games, and they believed that they could improve their language skills by playing the games.

Keywords: English, language games, pre-degree

INTRODUCTION

Integrating online games in learning is crucial for today's university students who are categorised as digital natives. Since they have been exposed to computer games in their daily life, they expect that computer games are used in their learning (Epper, Derryberry, & Jackson, 2012). Chen (2014) claims that they have the built-in capability to use online technological tools. Furthermore, placing games on the Internet is suitable for them since they prefer the virtual world that can serve as the platform to provide guided and engaging teaching and learning experiences (Kee, Vaughan, & Graham, 2010).

However, the integration of games in learning has been challenging. Games have been seen as time fillers in English class and are played for fun (Yolageldili & Arikan, 2011) they do not use games as frequently as expected in their classrooms. (English; Khonmohammad, Gorjian, & Eskandari, 2014). Schifter (2013) states that teachers have the tendency to think that games are trivial and just as time fillers if games do not meet the need of the curriculum. Epper et al. (2012) assert that games become invaluable for learning when pedagogical rationale is not included, and the implementation of games in learning should consider the balance for academic excellence, program integrity, academic freedom, and student achievement. Hence, online games for instructional purposes need to be designed by taking into account the learning outcomes that students are required to achieve.

Therefore, the statement of problem of the study was games were not suitable for language learning. The purpose of the study was to determine that language games are relevant in language learning. The objectives of the study were (1) to develop language games based on Bloom's Taxonomy and (2) to obtain students' perception on the relevance of these games in language learning.

The study is significant to students and teachers. First, it enables them to practice their language skills autonomously. Second, they are more motivated to practice their language skills outside the classroom. Third, language learning becomes fun yet challenging. Fourth, teachers can customize games to meet the needs of their students. Finally, they become competitive in learning.

However, the study had several limitations. The first limitation was the types of games created were restricted to grammar items. The second limitation was that the sample size was small. Hence, the results were true for the selected sample, and they cannot be generalized to other students at different places and levels.

LITERATURE REVIEW

Online games are computer games that are played on the Internet by a single player or multiple players or by using a multiple input gadgets (Ellis, Heppell, Kirriemuir, Krotoski, & McFarlane, 2006). They are also known as digital games (Klopfer, Osterweil, & Salen, 2009; Boyle, Connolly, Hainey, & Boyle, 2012; Cornillie, Thorne, & Desmet, 2012). Online games for instructional purposes are called with several different names such as computer games (Smith, Li, Drobisz, Park, Kim & Smith, 2013), digital games (Schaaf, 2012), digital educational games (Lin & Lin, 2013), computer-based instructional games (Butler, 2014), e-learning games (Fu, Su, & Yu, 2009), instructional games (Jafari, Madani, & Maghsoudi, 2013) and serious games (Anyaeibu, Ting, & Li, 2012).

Online games have specific features. According to Butler (2014) and Klopfer, Osterweil, & Salen (2009), online games are organized plays. Klopfer et al. (2009) further explains that games incline to have (1) specific aims, (2) transparent and unbiased rules to ensure fairness to all players, (3) mostly have “win” states, and (5) success is clearly determined by marks or other measurable results. Juul (2003) defines games with six characteristics: (1) games have rules, (2) games have variables and measurable outcomes, (3) games have positive or negative values allocated to possible outcomes, (4) games are challenging that require players to put effort to gain the outcome, (5) games make players attach to the outcome as they will feel happy if they get positive outcomes or sad if they get negative outcomes, and (6) games are negotiable as the same game can be played with or without real-life effects. Garris, Ahlers, & Driskell (2002) also outline six instructional game characteristics, but with broad dimensions: (1) fantasy (imaginary context, themes or characters), (2) rules (clear rules goals and feedback), (3) sensory stimuli (dramatic visual and audio stimuli), (4) challenge (optimal difficulty level and uncertain goal achievement), (5) mystery (optimal informational complexity level), and (6) control (active student control).

Online games serve several roles in language learning. First, they are used to promote enjoyment in learning (Godwin-Jones, 2014; Ang, 2014), increase students' motivation (Khonmohammad, Gorjian, & Eskandari, 2014; Anyaegbu et al., 2012; Liu & Chu, 2010; Jalali & Dousti, 2012), enhance information retention (Taheri, 2014; Aghlara & Tamjid, 2011; Smith et al., 2013), improve engagement (Godwin-Jones, 2014; Schaaf, 2012), increase students' learning autonomy (Godwin-Jones, 2014), and permit interactivity (Sørensen & Meyer, 2007; Juzeleniene, Mikeliuniene, Escudeiro, & Carvalho, 2014). Since the games are online, they share some of the roles of online learning activities such as they can be accessed 24/7, used outside of the class and cater with different learning styles (Parui & Nath, 2014).

In learning grammar, online games have other specific roles. According to (Garrett, 2009), learning grammar by using conventional drills is insufficient to explain grammar concepts and examples, followed by self assessment to evaluate comprehension. She asserts that Computer Assisted Language Learning (CALL) can replace conventional drills since grammar can be explained better by using animated computer graphics that permits dynamic illustrations of grammatical relations. Moreover, she adds that useful links of grammar database can be provided when grammar is learnt online. Studies proved that a lot of repetitive online practices made students felt that the activities were monotonous and tiresome (Thang et al., 2012; Jiang, 2012). Hence, online language games with multimedia features have the potential to serve the purposes described by Garrett (2009).

When online games are used for learning, they have to be able to measure the learning progress of students. Bellotti, Kapralos, Lee, Moreno-Ger, & Berta (2013) justify that online games for instructional purposes must have a testing tool which is acceptable in the educational context, and Bloom's Taxonomy is suitable to serve the purpose. However, their reviews on serious games suggest that serious games are only effective for motivating and attaining learning objectives at the lower levels in Bloom's Taxonomy. In contrast, O'Brien (2010) stresses that all levels in Bloom's Taxonomy are applicable in designing games of different levels for developing various cognitive skills. According to Gunter, Kenny, & Vick (2006), Bloom's Taxonomy has been used by teachers in developing learning objectives thus questions and lessons are designed according to this taxonomy. They state

that Bloom's Taxonomy is associated with mastery learning where students have to master the previous lesson in order to move on to the next lesson. Hence, they claim that the design of games can adopt the same concept.

Designing educational games may cause several setbacks such as additional cost may be required in using new software and it may also involve the additional programming language (Siko & Barbour, 2013). Hence, MS PowerPoint is one of the alternative tools for designing educational games that can address the setbacks. This is due to several reasons. First, it is a ubiquitous application used at learning institutions (Siko & Barbour, 2013). Consequently, additional cost is not incurred in purchasing new software and trainings. Second, it has still remained as the most prevalent application among educators compared to other alternatives such as Prezi, IMPRESS, Beamer and TurningPoint (Berk, 2011). Hence, educators are familiar with the software and trainings may not be required. Finally, it permits the use of multimedia such as coloured text, animated images and sound (Oommen, 2012), and it also offers advance features for instance movement, music, still images, and videos (Berk, 2011). As a result, interesting educational games can be created.

METHODOLOGY OF THE STUDY

The study was divided into two stages: (1) the game development and (2) the survey.

Game Development

In this stage, a course was selected (a Part One English course for diploma programs) and one teaching point (Grammar: Nouns) was identified. Six levels of interactive games in learning Nouns were designed based on Bloom's Taxonomy. Bloom's Taxonomy emphasizes on cognitive domains which are arranged in the hierarchy from the lowest to the highest: knowledge, comprehension, application, analysis, synthesis and evaluation. Therefore the levels of difficulty of the games were arranged according to this hierarchy.

The following table indicates the storyboard comprising game objectives, game description and the levels according to Bloom's Taxonomy.

Table 1: Game Objectives, Game Description and the Levels According to Bloom's Taxonomy

Level	Game Objective	Game Description	Level according to Bloom's Taxonomy
1	To identify between countable and uncountable nouns	Student needs to catch birds that carry countable nouns or uncountable nouns (based on the sets given).	Knowledge
2	To distinguish the plural form for singular regular noun or singular irregular noun (based on the sets given)	Student needs to distinguish from the three options the correct plural form for singular regular noun or singular irregular noun.	Comprehension
3	(Set A): To predict the irregular noun based on given letters. (Set B): To predict the correct regular plural suffixes for the given words	(Set A): Student needs to rearrange the letters in order to form an irregular noun. (Set B): Student needs to predict the correct regular plural suffixes for the given words.	Application
4	To analyse the characteristics of the highlighted words	Student needs to analyse the highlighted words that fit with the characteristics give such as uncountable, countable, regular, irregular, singular and plural.	Analysis
5	To synthesize a noun based on the given characteristics	Students need to choose which word that fit the given characteristics.	Synthesis
6	To assess the knowledge in assessing the correctness of certain nouns and their plural suffixes	Student needs to assess whether the combination of the noun with a plural suffix is correct or incorrect..	Evaluation

The games were later developed using MS PowerPoint with Visual Basic Applications. A basic game template of MS PowerPoint with Visual Basic Applications as shown in Figure 1 was used to design the games. The template has the Title Page, the Game Page that has two buttons (the correct button and the wrong button) and the Score Page.

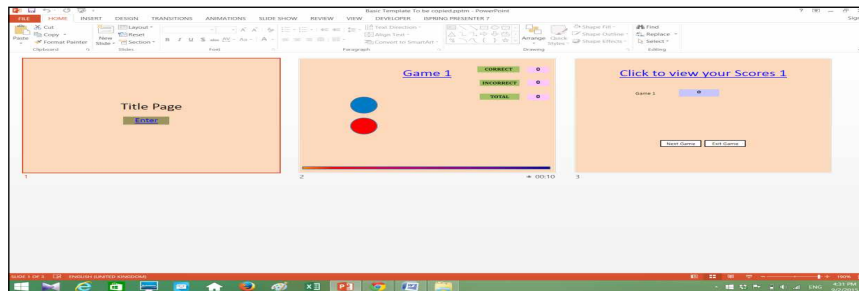
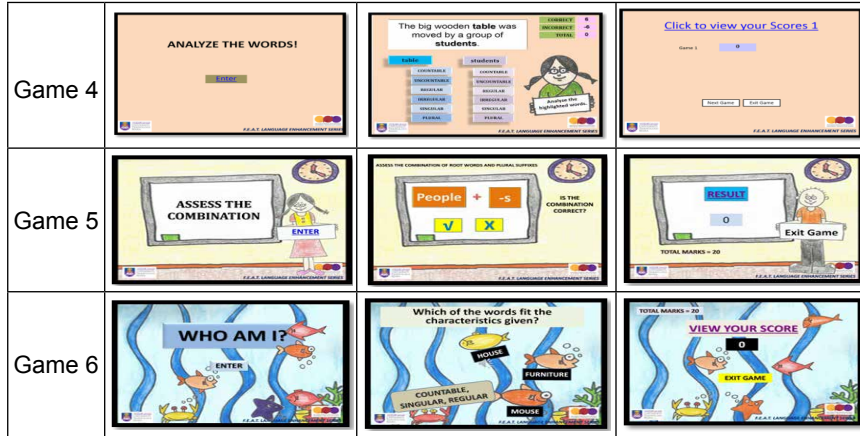


Figure 1: A Basic Game Template of MS PowerPoint with Visual Basic Applications

Pictures used in the games were drawn, coloured, scanned and edited by using Photoshop. These were done to avoid copyright issues when using downloaded pictures from the Internet. The following ()are the screen shots of the games designed:

Table 2: Game Screen Shots

Game 1			
Game 2			
Game 3			



SURVEY

In this stage, a set of questionnaire was prepared containing two parts. Part A was for obtaining demographic information such as age, gender, academic level and learning institution. Part B consisted 10 items to obtain students' perception on the use of the games to learn grammar. A group of students comprising 34 students of Diploma students of Universiti Teknologi MARA Seremban Campus were selected to conduct a field trial of the games. After the students played the games, a questionnaire was distributed to them. They completed the questionnaire in the presence of the researcher to assist them in completing the questionnaire. Then, the questionnaire was collected for data analysis. The purpose of the survey was to obtain students opinions on the relevance of using games for learning.

FINDINGS AND DISCUSSION

The findings of the survey are tabulated as follow():

Table 3: Findings of the Survey Respondents' Opinion about the Games

Question		Strongly Agree	Agree	Sub Total (Strongly Agree & Agree)	Neutral	Disagree	Strongly Disagree	Total	Mean
1	I enjoy playing the games.	17	15		2	0	0	34	4.44
	%	50.00	44.12	94.12	5.88	0	0	100	
2	The games are interesting.	17	15		2	0	0	34	4.44
	%	50.00	44.12	94.12	5.88	0	0	100	
3	The games are challenging.	13	17		4	0	0	34	4.26
	%	38.24	50.00	88.24	11.76	0	0	100	
4	I prefer to use the games for my revision.	18	14		2	0	0	34	4.47
	%	52.94	41.18	94.12	5.88	0	0	100	
5	I will play the games outside the class time.	16	13		4	1	0	34	4.29
	%	47.06	38.24	85.30	11.76	2.94	0	100	
6	The games help me understand the subject better.	14	19		0	1	0	34	4.35
	%	41.18	55.88	97.06	0	2.94	0	100	
7	The games are my way of doing revision about the subject.	13	16		4	1	0	34	4.21
	%	38.24	47.06	85.3	11.76	2.94	0	100	
8	I would like to have more games related to my subjects.	20	12		2	0	0	34	4.53
	%	58.82	35.30	94.12	5.88	0	0	100	
9	Playing games related to my subjects is not wasting my time.	19	13		1	1	0	34	4.47
	%	55.88	38.24	94.12	2.94	2.94	0	100	

Question		Strongly Agree	Agree	Sub Total (Strongly Agree & Agree)	Neutral	Disagree	Strongly Disagree	Total	Mean
10	I can improve my English proficiency through playing games.	23	10		1	0	0	34	4.65
	%	67.65	29.41	97.06	2.94	0	0	100	

Almost all the students preferred to use the games for their revision (94.12%), would play the games outside the class time (85.30%), believed that the games helped them understand the subject better (97.06%), believed that the games were their way of doing revision about the subject (85.30%), they would like to have more games related to their subjects (94.12%), believed that playing games related to their subjects was not wasting their time (94.12%), and they could improve their English proficiency through playing games (97.06%). The results indicate that online games are relevant to be integrated in language learning.

Online games for learning grammar are computer-based grammar programs. Students enrolling a language course usually come with different learning styles and language proficiency. Nutta (1998) assures that computer-based grammar programs can offer more than simple practice and reinforcement of grammar items learnt in class since computer-based grammar programs have the ability to personalize instruction and address different students' learning styles by incorporating multimedia. Therefore, they may prefer using online games for learning as online games have the features that suit their learning styles, they can select appropriate levels of online games, and they can control their learning pace according to their current proficiency level. Hence, online games can promote the acquisition of second language structure (Nutta, 1998).

Other useful findings are students also found that the online games enjoyable (94.12%), interesting (94.12%), and challenging (88.24%). Online games are enjoyable due to their interactivity thus players may find them interesting that cause players to participate in them (Turkay & Adinolf, 2012). Online games for instructional purposes need to be challenging in order to boost post-game reflections and promote learning (Turkay & Adinolf, 2012).

CONCLUSION

In conclusion, online games are relevant in language learning to be used as enhancement activities outside the classroom. What makes online games ()interesting and challenging need to be explored in order to ensure students participate in them. Further research on features of interesting and challenging online games can shed lights to game developers in designing online games that are engaging and teachers in evaluating engaging online games for their class use.

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