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Publication Date: Dec. 10, 2011

Conference information for conference papers:

Name: International Conference on Computer Assisted Language Learning (CALL) in 2011

Date: Nov. 5, 2011

Location: Yunlin, Taiwan

## Computer Games Functioning as Motivation Stimulants

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### Abstract

Numerous scholars have recommended computer games can function as influential motivation stimulants of English learning, showing benefits as learning tools (Clarke & Dede, 2007; Dede, 2009; Klopfer & Squire, 2009; Liu & Chu, 2010; Mitchell, Dede & Dunleavy, 2009). This study aimed to further test and verify the above suggestion, employing computer games as in-class formal or after-school leisure tasks for language learning and educational purposes. In spring semester, 2011, this research project related to on-line game play was conducted in a Taiwanese university, where 2 classes of 15 and 39 freshmen had provided their perceptions. Participants were suggested to select free on-line games during the 1<sup>st</sup> week and then inspect relations between the games and language education purposes. It was assumed participants might support or decline the concepts that educational objectives and effectivenesses can be found in games. In the 18-week research, more than 20 games with educational functions were demonstrated and presented.

The results showed participants regarded the games to be motivation stimulating. Three on-line free games on Facebook, Pet Society, Country Story, and City Ville, were nominated to be effective motivation stimulants. In this study of Facebook applying for language learning, each game was recommended by more than 3 students, with higher percentages than the other on-line games on diverse websites. Three advantages had been emphasized by the presenters. First, the games contribute to reading game descriptions bilingually to thoroughly complete missions. Second, game-based learning allows players to establish abilities of social interactions with the other on-line players in the identical game. Third, computing-mediated environment builds the learners' concepts of managing and administrating a government, a farm or a pet shop. This study implies the appropriateness and applicability of game-based teaching and learning. It did not only provide evidences of learners' excitements and supportivenesses by qualitative narrations, but also contribute to providing pedagogies on how game-based curriculum could be more formally realized in second language learning classroom.

**Keywords:** CALL (Computer-assisted Language Learning), Educational computer game, Facebook, Interactive learning environments

## **INTRODUCTION**

Miller, Lehman, and Koedinger (1999) indicated that undergraduates who either were told to first explore the micro world of an educational game or were shown the correct strategy in the game performed better than students who began playing the game without prior preparation. It is recommended that the entertaining game characteristics are motivating, but they must be supported with planned selected tasks, instructor guidance and monitoring or testing for students' learning results. Based on the above principle as a foundation, this study related to game for educational purposes not only investigated the positive or negative echo of language learning from computer, but also attempted to provide a model curriculum of game-based teaching and learning. It is argued that the previous instructions and learning goal setting for language learners in game-based language learning can be key factors whether the language acquisition from on-line game can be sufficient or insufficient.

This study was conducted in spring, 2011, aiming at encouraging students to interact with international people on-line and use computer as an instrument of English learning. The preparation tasks of this study for game-based language learning are: first, instructing appropriate websites, secondly, leading students to share advantages and results of playing and learning with classmates and thirdly, raising students' awareness what are not high-quality games for language learning. The present study collected qualitative narrations, and provided students' feedback by coding thick descriptions. It pointed out 3 games to be most popular and proper games, contributing to improving diverse English abilities, including listening, speaking, reading and oral presentations. The results were in line with a number of scholars' perspectives, noting that games are potentially powerful learning tools because they can motivate, engage, stimulate higher order thinking, replicate phenomena accurately and speed up or slow time in order to provide relevant instructional experiences (Alessi & Trollip, 2001; Charsky & Ressler; Gee, 2003; Rieber, Smith & Noah, 1998; Van Eck, 2006).

## **LITERATURE REVIEW**

Numerous studies indicate computer games are accessible and useful for language learning use, due to its features of congruence and appeal. For example, Lepper and Malone (1987) mentioned that when the game activity and the learning activity are congruent and mutually supportive, learning improves; conversely, when

the game activity and the learning activity are mutually exclusive, learning tends not to improve, even though the learner tends to perform well in the game. According to Malone and Lepper (1987), the higher-level the game can be relevant with the educational contents, the more motivated students will be to gain knowledge. Selecting games with functions of education should be a professional English teacher's responsibility.

In light of what mentioned above, preparations for game-based learning can be a significant and necessary step in teaching and learning; however, the preparation instructions or game-play demonstration must be carried out in a moderate way. Instead of long-term lectures, reducing the fresh and exciting level of game playing, the preparation leading descriptions should be brief, learning-purpose driven and motivation-stimulating. In fact, Burleson (2005) and Swan (2010) emphasized this point. They argue that providing too much information in the beginning may have taken away elements of challenge and discovery in playing the game and render the students passive learners. Therefore, involving previous demonstration and instructions of playing in curriculum can be expected to influential upon not only the students' attention paid to playing the game, but also the level of students' satisfaction. It is stressed that more control and enjoyable learning space given to the students is essential. However, teachers' brief descriptions of learning and playing in the prior stage cannot be ignored. Although a number of scholars indicate that game-based learning can be adopted in formal classrooms (Barendregt & Bekker, 2011), some of them remind us to apply this updated pedagogy more carefully. For example, Charsky and Ressler's (2011) research carries with it a warning for educators who adopt game based learning approaches: Do not dilute the potential effectiveness of games by taking away the one distinct attribute that gives them their advantage—play. This study paid attention to this point and directs student-centered mode of learning in and out of classroom. Based on above theories and results of studies, the opening demonstrations by the instructors tended to be diminutive, excitement-eliciting, contributing to stirring students' motivation and make students learn without obtruding.

This study utilized Facebook as the instruments of game-based teaching and learning. In fact, Facebook has been being applying as teaching instrument these years. For example, Shih's (2011) and Depew's (2011) findings based on Facebook application suggest useful instructional strategies for teachers of ESL English writing courses. According to Depew (2011), using Facebook's WebPages, language learners are able to develop their writing strategies in responding to complex situations. "These alternative and unconventional sites for learning provide language learners opportunities to acquire language by using multiple modalities to respond to various

rhetorical situations.” (p. 54)

The contribution of this study is it discovered 3 appropriate games with language learning functions, approved by university students and teachers to be included into formal educational curriculum. From Taiwanese perspectives, it contributed to game-based learning and teaching field by introducing educational functions in Facebook games. The significance of this study is Facebook games have been hardly ever analyzed and reported in academic field, although they have been being played by university students.

## **METHODOLOGY**

This study was conducted in a university of central Taiwan, where 2 classes of 15 and 39 freshmen had cooperated with the researchers to investigate appropriate on-line free games for educational purposes of English learning. This qualitative study lasted for a semester, as well as 18 weeks. The instructor as well as one of the researchers had demonstrated learning English through quite a few on-line games such as “Guessing Song King”, “Farm Ville”, and “City Ville”...etc, briefly. Following, the teacher advised students to discover an analogous on-line game to play, which had to be associated with purposes of English education. The lecture reminded the students to integrate their abilities of reading, writing, listening and even speaking while playing and learning. The home assignment was to request students to provide their reasons why the games they selected and played were beneficial to language learning or for any educational purposes.

## **RESEARCH QUESTIONS**

1. What are students’ perceptions of the computer game?
2. Do they regard it as an appropriate educational game?

## **ASSUMPTIONS**

First, due to course takers’ background, they might not agree with the concept that playing can be the same as learning. Second, the course takers might have approved the updated pedagogy already. The reason could be that the computer and laptop are popular in Taiwan families. Therefore, the participants could provide some reasons for why the game played were appropriate.

## **RESEARCH SETTING**

This study was conducted in 2 classes, where 15 and 39 students had selected the 2 credit required English course. The class of 15 students was held each Tuesday night for 3 hours continuously from 6:30 pm to 9:20 pm. The other class was held on Tuesdays and Thursdays for 3 hours in the morning (10:10 am to 12:00 am) and in the afternoon (1:00 pm to 1:50 pm). The night class was in the advanced level and the day class was in the intermediate level. The criteria of their level placing were based on their English subject scores of entrance examination. Each class room was equipped with 50 seats, and a blackboard and a computer and a screen were set in the front of classroom.

## **INSTRUMENTS**

The instruments for playing games and language learning were a computer, a huge screen and 3 on-line games discovered by the researcher from Facebook (Guessing Song King, Farm Ville and City Ville). Facebook can be an instrument that has been being applying for educational purposes by various educators and researchers. (e.g., Mazman & Usluel, 2010; Shih, 2011) To collect qualitative statements, paper sheets with the open-ended question had been offered to participants for answering. Moreover, each student presented a game by oral presentation at the end of the semester, via playing and learning using the equipped computer and screen in the classroom. The details they commented on the game were also recorded and analyzed. Several students brought their own laptops and presented games for their classmates and teacher. Their 5 minute presentations, including feedback of relations between the games and educational functions, were analyzed by comparison and contrast methods. Three similar themes reported by most students were conceptualized, classified and revealed.

## **RESULTS**

From students' presentations, it could be discovered that the majority students proposed 3 games to be valuable for language learning. These 3 games are Pet Society, Country Story, and City Ville. They were mentioned by more students. Participants tended to regard them to be obliging education resource for language learners and field workers. The reasons these 3 games are applicable are in the later parts.

First of all, several students pointed out the game's descriptions were different languages, including English and Mandarin. Two interfaces could be switched to each other, so game functions of translating and being a mentor can support their language learning. Game players could read in Mandarin first for fully understanding the

descriptions. Following, they played the same game by switching the screen into English interface for better understanding. The game contents contained adequate new words, so language learners could enjoy reading to enter the next stage for higher-level game sessions.

Second, game-based learning allowed players to establish abilities of social interactions with the other on-line players. Students mentioned they could be motivated since they would like to compete with or help their neighbors on the game. They were able to visit the world established by their friends, to help out or interact with neighbors. Some participants' on-line neighbor players were native English so they improved in their English communications. After helping out their friends to achieve further sessions, they felt satisfied, sociable and more internationalized. Participants indicated that they sent messages to their neighbors and received responses in English. By receiving responses from their neighbors frequently, they were motivated to play and learn for a longer term. A student emphasized an American commercial company staff was playing the same game has interactive with him, allowing him making progresses in English communications.

Third, computer-mediated environment helped the learners' built concepts of administration and development. For example, in Pet Society, they learned how to manage necessities whilst staying home. In City Ville, they learned how to make an area flourished by establishing stores, ports and government hall. The students addressed that in the imaginative world, they could become a virtual mayor or a famer, imitating to be a governor, a baker a cultivator...etc. A student mentioned that she needed to have more interactions with neighbors, so she could receive gifts to make herself wealthy. Also, a student mentioned he had to run profit-making stores, so that he could gain benefits. A student suggested the players to develop lands by building high buildings or a city hall.

## **CONCLUSION**

To conclude, in the present study, the 3 games, Pet Society, Country Story, and City Ville were regarded by most of the students as appropriate on-line free games. The results of this research implied appropriateness and applicability of game-based teaching and learning from Taiwanese perspectives. It revealed that games can be included into the language learning curriculum in formal settings. Besides reminding language educators not to ignore the prior stage instructions and to motivate students to study by mentioning above game-based learning advantages, this study recommends that qualified course outlines for game teaching should be designed in the syllabus if the game-based pedagogies really can be included into the formal curriculum.

The findings might be in contrast with Ke's (2008) supporting a common skepticism in using computer games for learning, namely that 'game playing students may involve themselves in pursuit of pure entertainment as opposed to learning-oriented problem solving. However, sufficient researches tend to support the application of games for educational purposes. Charsky and Ressler's (2011) study also supports the idea that computer game game-based pedagogies can be applied for education purposes. In parallel, Chang and Kuo, Kinshuk, Chen, and Hirose, (2009) argue that game-based systems should be worthy in developing applying. In sum, the research results of game playing associated with language learning were conspicuous. Most Taiwanese university students in this study agreed that game-based learning is applicable in school and it can be included into the formal curricula of university English courses.

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