VIDEO GAMES PROMOTE SAUDI KIDS ENGLISH VOCABLARY RETENTION

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Abstract

The objective of this study was to investigate the impact of Video Games and their role on promoting Saudi Kids' English vocabulary retention. The present study attempted to answer whether there was a statistically significant difference (α=0.05) between the Saudi children's subjects' mean score on the English vocabulary test due to using Video Games activities in Kindergarten or not. The researcher used a random sample of (60) female Saudi children from a kindergarten in Riyadh; (30) students to represent the experimental group, and (30) students to represent the control group. In the experimental group a selected group of Video Games was used from the official site of the British Council to teach vocabulary, whereas in the control group English vocabulary was taught through traditional methods. At the end of the teaching period, the participants' performances were compared. Those children sat for a pre and post- tests of vocabulary which was prepared to suite the sample's ages. ANCOVA analysis was used to analyze the quantitative data. The results indicated that the mean score of the kids in the experimental group was significantly higher than those in the control group, indicating the positive effect of using Video Games in teaching English vocabulary to children. It was recommended that Kindergartens' teachers adopt Video Games activities in their classroom practices to improve kids' English vocabulary retention. Consequently, the children's English comprehension would be improved as well**.**

Keywords: Video Games, Saudi kids, Vocabulary, Retention, Promote, English Language.

1. Introduction and Background

The use of digital media has shaped our lives and the way we interact with others. Children are no exclusion to this rule. Today's children are living in a highly media influenced environment with an unlimited access of digital electronic devices, both at home and school. They spend most of their leisure time interacting with computers and playing Video Games.With the rapid introduction of computer, the field of education also benefits from these technologies. The effects of these technologies on issues such as student success, attitude, motivation and retention, have been investigated in different fields. One of these fields is language learning. Studies has shown that using computers and web in language teaching provides more effective learning compared to traditional methods, increases the motivation of the learner, develops positive attitudes in students, and increases the retention process (Chuang&Chen,2007). In today's changing educational system, it can be said that games may be effective on every age group by shaping them appropriately during developmental period (Donmus, 2010). According to Agudo (2007), a video game is a rule based formal system with a variable and quantifiable outcome, where different outcomes are assigned different values. Educational Video Games are activities that provide students the opportunity to reinforce the previous knowledge by repeating it in a more comfortable environment. They have software that helps students to learn the lesson subjects and to develop their problem solving skills by using their desire and enthusiasm to play (Ang

&Zaphiris, 2008). The necessity to learn a foreign language has been on the rise due to globalizing world and the development in the ICTs. Opportunities that are provided by ICTs have led to changes in traditional education. These changes have destroyed the walls of traditional education. Furthermore, with the help of computers learning environments have become more interactive and less boring particularly in foreign language learning. Using Video Games with foreign language education is one of the most utilized methods and have been developed by foreign language teachers (Juul,2003).Findings from a number of research studies indicate that appropriately designed Video Games enhance students' learning performance in science, mathematics and languages learning (Gee, 2003). Previous studies indicate Video Games have important factors that can motivate, challenge, increase curiosity and control and promote imagination in children (Uzun, 2009). According to the published statistics, three quarters of children play regularly, but it is not clear whether this is harmful or beneficial and whether children learn while they are playing (Kirriemuir& McFarlane, 2004). So, it is not surprising to see that today, most language teachers in the world are using Video Games for teaching foreign language,especially with children(Gee,2003). Recently, Video Games' presence and popularity have been ever-growing, and game developers and researchers have started to investigate Video Games' impact on kids' English language learning (Bottino, Ferlino&Travella, 2006). For example, Agudo2007 conducted a study investigating the influence of Video Games on children's subsequent performance on instructional tasks.

The study found that Video Games use enhances children's fine motor skills, alphabet recognition, concept learning, numerical recognition, counting skills and pre-language knowledge, cognitive development and self-esteem or self- concept (Agudo, 2007).While game-playing is regarded somewhat negative in educational settings, particularly for young children, its influence in a teaching and learning context is crucial. The current study tried to investigate whether Video Games promote Saudi kids' English vocabulary retention, or not.

2. Educational Video Games and Language Learning

Gaming is a characteristic of human nature. The format and the interactivity of the games have changed as computers were introduced to the educational setting. Digital games provide social interactions (Korhonen, Montola&Arrasvuori, 2009). Gee (2003) highlights the real importance of well-designed computer- and video-games as people reinvent themselves in the virtual world of games and both fun and learning can be achieved simultaneously. Various games contain animations and videos that include audio-visual objects. Audio-visual scenes provide interactivity (Smolic&Kauff, 2005). Plass and Jones (2005) use Gass' (1977) Foreign Language acquisition model that outlines the significance of noticing linguistic information (Chapelle, 1998; Schmidt, 2001) for declaring an interactions model of language learning with multimedia. The features of Video Games can support the language acquisition process (deHaan, 2005a). To sum up, Video Games can play a crucial role in language learning. Video Games are creating a new social and cultural environment and by combining thinking, social communication and technology it also facilitates learning.

2.1 Educational Computer Game

In today's changing education system, it can be said that games may be effective on every age group by shaping them appropriate enough developmental period. Game develops individuals' mental and physical capacities, has its own rules, continues for limited time and space, forms voluntary groups through voluntary participation and holds the attention of participants all the time.

Video Games taking its place in game culture with the advance of technology, provide surfing in the virtual environment in which rich discovering opportunities are available and creates appropriate content for transferring exercising skills into real world (Wheeler, 2009). Educational games are activities that provide students the opportunity to reinforce the previous knowledge by repeating it in a more comfortable environment

(Chuang&Chen,2007b). Educational games are software that helps students to learn the lesson subjects and to develop their problem solving skills by using their desire and enthusiasm to play (Cankaya&Karamete, 2008).

In this entertaining world, there are also learning and exercising materials. For this reason, games have also been used for educational purposes recently (Kert&Kuzu, 2006). Academic games aim to provide students with an environment where they do exercises while learners are motivated to learn (Can, 2003). Studies conducted on the subject of games have shown that making a lesson with a game environment attracts students' attention to the lesson. According to Kuzu and Ural (2008), when games and education are combined, education environments can be entertaining. Those who learned with the use of games, gain positive attitudes and can be motivated while learning. Kebritchi (2008) states the positive effects of game according to his study as follows: - The game motivates students because it has an alternative role in education. It offers a learning environment apart from pen and paper. According to Wheeler (2009), Video Games are not useful for all learners and learning; however, when designed effectively, it creates a reliable cooperative learning environment.
To sum up Video Games remove the English lesson phobia in students' minds.Also, concepts used in the games can be remembered longer.

2.2 Educational Video Games and Foreign Language Learning

Video Games are programmed in different fields. Foreign language education is one of these fields Song (2008), Educational games should be designed in order to improve the writing abilities of students. The findings reveal that open-mindedness, interest and low interaction are the critical thinking disposition characteristics of foreign language learning. Wright, Betteridge and Buckby (2006) review the advantages of games for learning English and find out that games help and encourage learners to learn new language. Very little research has specifically targeted language acquisition through games; however, various foreign Language acquisition theories and study results, as well as current language teaching methodologies may support the use of Video Games in ELT (LeLoup&Ponterio, 2003).

Vocabulary learning is often perceived as boring by learners. The internet has opened up a world of possibilities for improving the vocabularies of young learners. By using Video Games, teachers and parents can ensure that their young learners are prepared for the adventure of reading and writing. In playing Video Games, young people are making use of vocabulary for their own purposes, in complex and pleasurable ways.

In fact, learning another language can be very difficult. Role plays and games are used in the language classroom to let students practice language before they must use it in the "real world." Video Games are another avenue for "experimentation in a safe 'virtual environment'" (Kirriemuir, 2002). Learners may be hesitant to participate in language classes because of shyness, but may be more willing to interact with a video game in order to gain valuable.

To conclude, looking at the studies conducted on educational games in general, it is a common belief that educational Video Games enrich learning process, make students' learning more enjoyable and retentive. However, it should not be ignored that educational games should be used with different methods and techniques of teaching rather than alone. Finally, Video Games designed with educational purposes in mind, serve as an important tool for students to absorb rules and content of the game unwittingly. Therefore, Video Games motivate students and help them to construct their own learning entertainingly.

2.3 Why Video Games

Research proves that Video Games are not only helpful, but also prepare kids for life in the 21st century. Wheeler(2009) argues that if parents include good digital games in their children's daily routine, they will accelerate their language and cognitive growth and give them the skills they need for the high-tech global world they will live in.

Video Games are teaching our kids to succeed in the 21st Century (Yildrim,2009).Good Video Games can teach kids how to learn things on their own quickly and then use these skills to achieve, make constant and rapid decisions that affect things they do(Can,2003). Video Games improve hand-eye coordination, develop creative problem solving skills, exercise control in challenging circumstances, be persistent, pay attention to detail and think strategically and laterally, as well as linearly and logically (Song,2008).

3. Problem Statement

In Saudi Arabia, English is studied at schools as a foreign language. In public schools and colleges, English is taught as a compulsory subject, starting in the elementary grades. Especially in Saudi Arabia, children spend long hours playing Video Games, which are mostly in English (Personal observation).Many parents are concerned with the intensity of involvement and amount of time that kids devote to playing Video Games. However, they may not know that some games can be quite instructive and enlightening for their children. Some comments suggest the popularity and potential benefits of online games for vocabulary learning. To learn unknown words, the participants should develop some strategies, such as guessing from the context, looking it up to online dictionary. They sometimes need to look up the dictionary in internet and sometimes when they play the game two or three times, they learn it and get help from the people near them. As they see them and learn the meaning of words visually, they understand better. Children are often considered more future oriented (Kebritchi, 2008), more technologically aware and interested than adults. These characteristics of children can be explained by their early adoption and adaptation to technology.

4. Literature review

Research has been conducted to investigate the role of Video Games and their value in learning a foreign language. (Agudo, Sanchez & Rico, 2010; Agudo et al., 2007a; Agudo et al., 2007b; Agudo et al., 2007c; Agudo et al., 2006a; Agudo, Sanchez & Rico, 2006b; Agudo, Sanchez & Sosa, 2005; Cumbreno et al., 2006; Edwards et al., 2008; Rico, Agudo&Curado, 2007a; Rico, Curado& Edwards, 2007b). Video Games include choose, body identification, stickers, counting, matching and coloring among others. These games are configurable and adaptable to the difficulty, interaction style and educational level corresponding to a particular child. DeHaan, Reed and Kuwada (2010) have investigated the effect of interactivity with a video game on foreign language vocabulary recall. Their experimental study investigated to what degree video game interactivity would help or hinder the noticing and recall of foreign language vocabulary. Eighty randomly-selected Japanese children were paired based on similar English language and game proficiencies. One subject played an English-language video game for 20 minutes. Following game play, a vocabulary recall test and a two week delayed vocabulary recall test were administered. Results were analyzed using paired samples tests and various analyses of variance. Both the players and the watchers of the video game recalled vocabulary from the game, but the players recalled significantly less vocabulary than the watchers. The players perceived the game and its language to be significantly more difficult than the watchers did. Players also reported difficulty simultaneously attending to game play and vocabulary. Wang (2010) conducted a study of Video Games in teaching and learning English in Taiwanese primary schools. The aim of his study was to examine the use of communicative language Video Games for teaching and learning English in Taiwanese elementary schools. The participants were 150 teachers teaching in Taiwanese primary schools. The instrument used was a survey questionnaire about participants' perspectives on the use of communicative language games in English lessons. The results of the study provided encouraging evidence that Taiwanese school teachers generally appreciated the benefits of communicative game activities in the teaching of English language.

To sum up the research of Video Games' based language learning focuses on Video Games as a virtual environment that supports language learning on its own and Video Games as a tool. The researcher intends to represent an example concerned with the use of Video Games in learning English as a foreign language in Saudi Kindergarten.

5. Research Question

The present study attempted to answer whether there was a statistically significant difference at (α=0.05) between the Saudi children's subjects' mean score on the English vocabulary test due to using Video Games' activities in Kindergarten or not.

5.1 Purpose of the study

In the sophisticated world of the 21st century, children spend most of their time playing digital Video Games. Learning vocabulary and the process of vocabulary retention have a vital role in foreign language learning. There is a relationship between language learning in early ages and digital games because children are able to understand language with digital games easily. Using games in children's class smoothed their learning because the games capture their attention and motivate them. Instead of making students do a lot of homework in a threatening environment after class and repeating after the teacher all the time aimlessly, a good and energetic teacher can encourage the creativity and imagination of the learners by using digital games because they are fun and children like to play them. Through playing digital games, even the shy students participate in language learning. Therefore, the purpose of this study was to determine the effect of using Video Games on a group of Saudi children's vocabulary retention of English as a Foreign Language at kindergarten level. This research that was put to test was that using Video Games would have a positive effect on vocabulary retention of the children.

5.2 Participants

The participants were 60 female kids five to six year old with no prior knowledge of English. They were divided into two equal groups of experimental and control each consisting of 30 participants.

5.3 Instruments

Computers equipped with the appropriate Video Games software installed, black board, marker, flash cards and posters for learning parts of the body, animals, colors and family members were used in this study, in addition to Pre-Post vocabulary tests.

5.4 Data collection

Before starting the experiment, all the participants were evaluated through a validated vocabulary pre-test .During a 60 day teaching period, which consisted of three 60 minute sessions during the week, children in the experimental group were taught English vocabulary consisting of the names of (parts of the body, animals, colors, family members) using Video Games . Children in the control group did not use Video Games and were taught lessons using the traditional methods. Each unit includes four blocks of activities: presentation, interaction, evaluation and review. The child selected a unit by clicking on the associated icon. A transition scene is dynamically generated and presented to the child. This type of scene contains graphical, audible and clickable icons showing links to the next activities that the child could carry out. At the end of the experimental period, a final vocabulary test was undertaken by both groups of children. The results of the Pre-Posttests in both groups were expressed as means standard deviation and were statistically compared using ANCOVA with the SPSS statistical software version 15.

The mean results of the Pre-Post vocabulary tests in the experimental and control groups are presented in Table 1. The results are based on fifteen questions asked for every child about four domains of vocabulary [parts of the body, animals, colors, family members], as stated in

the data collection at the end of the sixty-day teaching period. Each correct answer has two marks. The highest mark was 30 and the lowest was 0.

Table 1: Means and Standard Deviations of the Subjects' Scores on the Pre and Post Tests according to Teaching ProcedureVocabulary test scores

Group	N	Vocabulary Pre-test		Vocabulary Post-test			
		Mean	Std.Dev.	Mean	Std.Dev.	Adjusted Mean	Std.Error
Control	30	15.7	4.84	18.083	3.85	17.9	0.18
Experimental	30	15.84	4.45	22.19	3.72	22.28	0.12
Total	60	16.49	4.29	21.5	4.12	20.19	0.16

Table 1 show that there were observed differences between the means of both groups according to the teaching procedure. Covariance Analysis ANCOVA was used to find the significance of these differences at (α=0.05). The results were presented in Table2.

Table 2: Results of ANCOVA on the Vocabulary Posttest Due to Teaching Procedurevocabulary Post-test

Source	Sum of Squares	Df	Mean Square	F	Sig.	Partial η^2
Vocabulary Pretest (covariate)	4210.706	1	4210.7	885.168	0.000	65.5%
Group	1846.26	1	1846.26	388.1	0.000	45.1%
Error	2221.49	467	4.75			
Total	8343.5	471				

Table 2 shows that there was a statistically significant difference at (α=0.05) between the means of students' scores on the post-test attributed to the teaching method in favor of the members of the experimental group. The size effect (45.1) indicated that using Video Games in teaching English vocabulary for Saudi kindergarten students affected positively their achievement in the experimental group.

6. Discussion

Grounded on the previous results, it was concluded that the use of Video Games in learning English vocabulary was much more effective in children. Another reason for students' improvement was related to the richer content with audio, video and animation which was provided through the Video Games. In addition, the positive improvement in the students' achievement could be a result of Video Games context. They could predict the next information which was improved through a direct feedback after each task or activity. This direct feedback provided students, individually, with the correct answers to go ahead and did more tasks or corrects the wrong answer to return to the vocabulary question and try again. To add, in this program, children had the opportunity to practice learning new vocabulary via internet anytime and at any place since the electronic material was available for all students through the British Council's official site for free. The results of this research were

inconsistent with the results of Kirriemuir& McFarlane (2004) which proved that Video Games developed players learning competences and literacies during game play. This is particularly evident in countries like Saudi Arabia where English is taught as a foreign language and is not the native language of the children. Consequently; children likes learning via playing and enjoyment instead of restricted classroom contexts. Procedures of language learning have become more engaging by means of educational Video Games which introduce fun to classrooms where students feel more satisfied and comfortable (Uzun, 2009). The result of the study indicates that children in the experimental group were learning English vocabulary by playing video game and they were not conscious that they were engaged seriously in learning a foreign language. The findings of this study also confirm that children who were taught using the Video Games learned the new words of English, words previously unknown or unheard by them, much more successfully. The same results were confirmed by Yip &Kwan's (2006) study as they indicated that students who were provided with an electronic environment became more successful in learning new words compared to those who did not. The results of this study will be the beginning to ask how this powerful new medium might be used to support children's learning of English language as a foreign language in kindergartens. Rather than shutting the door of the school against Video Games, there will be increasing interest in asking whether Video Games might be offering a powerful new resource to support kindergarten's learning in the knowledge age.

Conclusion

It was clear that in Video Games' English vocabulary classes; the environment was comfortable and cooperative so that less confident children who normally refuse to participate in the English class wanted to participate in the class activities. Also, the opportunity to hear English from native speakers was great. Students were away from the routine of the classroom and they interacted with a new environment of Video Games which was presented through the British council official site via the internet anytime and anywhere. The Study concluded that Video Games have positive effects on vocabulary learning process in kindergarten classes of Saudi children. As such, using Video Games in the classroom results in facilitating the English vocabulary learning among kindergarten's children.

Recommandations

On the basis of the results of this study, the researcher recommends that the Saudi Kindergarten's teachers adopt Video Games as a tool in teaching new English vocabulary for kindergarten children in Saudi Arabia. Moreover, the researcher recommends the Saudi universities to train EFL graduates effectively in order to prepare them to meet the needs of today's diverse workplace. Also, the researcher encourages those who teach English vocabulary in Kindergartens through Video Games to continue moving forward. The researcher offers the notion that with training and support, each kindergarten's teacher could implement these Video Games in children's learning process.Consequently, English vocabulary teaching will be improved as well. The children will comprehend the new vocabulary and remember them easily.

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