A STUDY ON THE EFFECTS OF CRIMINAL CASE GAME ON POLTEQ BEM STUDENTS' VOCABULARY LEARNING

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Abstract. In order to master English language, vocabulary is an essential part. Without vocabulary, a learner will not be able to form a sentence and as the result he or she would not be able to communicate written or orally. Though vocabulary has been considered as the most important aspect in learning a language, there has been relatively little research in this specific area. This study attempts to investigate the effectiveness of learning vocabulary by using video game. 40 students from the sixth semester of Polteq student both male and female were chosen by using their fifth semester TOEIC score and they were separated into Experimental and Control group (10 males and 10 females each). Experimental group had to play Criminal Case for a month and Control Group had no treatment. Getting the result, the writer analyzed it by using descriptive statistic. The results of the experiment shows that the experimental group gain higher score in posttest compare to their pretest.

Keywords: Criminal Case, Vocabulary Learning

INTRODUCTION

English language is an International language which is used worldwide around the world both written and oral. It is a must for people to learn English language in order to increase the Human Resource value by mastering the Global Language. So that anyone would be able to do business, trade, promote their culture to worldwide, have a good politic relationship with other nation and most likely to be able to compete with other countries especially with the coming event, AEC (Asean Economic Comunity).

In order to master English language, vocabulary is an essential part. Without vocabulary, a learner will not be able to form a sentence and as the result he or she would not be able to communicate written or orally. Schmitt (2008:1) states that, in the current research on second language vocabulary learning, a large vocabulary is needed in order to function in English Language: nearly 8000-9000 word families for reading, and perhaps as many as 5000- 7000 word families for oral discourse.

Video games is a media that can be used by anyone above three years old. One of the games is Criminal Case, when the player acts as a detective to solve murders, locating relevant clues at the crime scenes by clicking items in the scenes. DeHaan (2005:5) conducted research to examine the role of video games in improving listening and reading in

Japanese. The results of his study showed that video games enhance a learner's language acquisition, and when a student plays a game to learn language, she or he balances play and learning. Furthermore, playing video games increases learners' ability in listening and reading comprehension. Finally, Dehaan found that a video game's repetition, contextual clues, controllability, and simultaneously presented aural and textual language, all contribute positively to language learning.

CONCEPTUAL FRAMEWORK

Schlimme (2002) in her journal Video Games A Source of Benefit of Addiction, believes that video games provide a context in which participants can discuss scenarios and outcomes in order to facilitate their understanding of other concepts and can improve children's reading, spelling, and spatial abilities and critical-analysing techniques. Schlimme also maintains that some simulation video games present players with unfamiliar words which are needed in order to succeed in the game, and, therefore, the players' vocabulary levels may increase as a result.

Shaffer, et al. (2004:5) discussed the psychological aspects of video games: the virtual world makes it possible to develop situated understanding, effective social practices, and shared values, and helps gamers acquire an epistemic view of the context. They concluded that the epistemic frame making, as well as the integrated knowing and doing of the virtual world, are powerful tools for learning.

In summary, video games give us benefit by developing the situation in which we can increase our social practices, values and help gamer to acquire an epistemic view of the context. While doing that, gamer can also encounter unfamiliar words in which need to be understand in order to be succeed in the game.

METHOD

This study was conducted by using True Experimental approach to answer two questions: (a) Is Criminal Case effective to improve vocabulary learning of BEM students' in Polytechnic Tonggak Equator? (b) To what extent the Criminal Case help BEM students' English language learner acquire vocabulary over those who acquire vocabulary without using video games?

Participants

In this study, the writer selected 40 samples consist of 20 males and 20 females. They are divided to two groups (Experimental and Control Group) and each group consist of 10 females and 10 males. They were chosen because they have passed five semesters which has intense English Language learning and already had TOEIC simulation test in their fifth semester. The samples itself were chosen by score, students whose score is above 84.5 which grade is A were administered to Control Group. Whereas, students whose grade were not A but have

Instruments

This study used two instruments. The first instrument was the TOEIC score mentioned above. The second instrument, designed by the writer, thirty multiple choice questions, was an achievement test. The tests score itself were compared from their pretest and posttest result. The result was analyzed by using a descriptive statistic which will show the comparison of their pretest and posttest after a month.

Materials

The material for Experimental Group was Criminal Case game which they had to play for a month. The control group was not given any treatment in this study. Later on, they receive thirty multiple-choice questions which are the same as their pretest. The vocabulary used in the test was vocabulary which is related to crime since the game is Criminal Case. Criminal Case was released in Facebook on November 15th, 2012. Few years later, it is available on iOS (August 28th, 2014) and Android (April 15th, 2015). Criminal Case is a detective-themed hidden object image. Developed and Published by French Indie Studio "Pretty Simple". The player acts as a detective to solve murders, locating relevant clues at the crime scenes by clicking items in the scenes.

The video game was selected according to Nunan (1999) cited from Vahdat and Amin (2013:4). Nunan (1999) maintains that every task for learning, either the skills or sub-skills language, should include presentation, practice (repetition), and production (Nunan's "Three Ps").

The player in Criminal Case acts as a detective to solve murders, locating relevant clues at the crime scene by clicking items in the scene. During this process, player will also have to come across necessary autopsies and analysis that may take a few real-time hours to

complete. There are also puzzle elements to the game. Several simple click-and-drag activities (dubbed "forensic minigames") were given to add some more variety to the player's routine. There were also additional scenes at each case that can be unlocked by obtaining several stars. In this case, the game itself already represent Nunan's first P; Presentation.

The player had to understand and use the vocabulary, know the definition and example of the item to be able to not only conjure the image of the objects in their minds but also find them in the case of the game. This fulfils Nunan's second P; Practice.

The mini-game inside Criminal Case provides the player to combine and move some small object or picture in order to create the full image or perfecting the image. Thereby, this fulfilling Nunan's third P; Production.

Procedure

There were two tests in this experimental research which is called as pretest and posttest. Both Experimental and Control group had to do the test. After Experimental Group played the game for approximately a month, the posttest was administered. The pretest was done on March 29th 2016 and the posttest was administered on April 22nd 2016.

FINDINGS AND DISCUSSION

Following is the scoring of the tests where the result is put under a descriptive statistical analysis to answer the hypotheses. The descriptive statistic for both group are as below;

Table 1. Control Pretest

Group	N	Minimum	Maximum	Mean
C-Male	10	33.00	77.00	52.4000
C-Female	10	47.00	83.00	62.1000

The respondent for control group was chosen by their TOEIC score. Those whose grade is A or which score is above 84.5 is in Control group. As we can see from the table above, the control group which consist of 10 male and 10 female got 52.4 and 62.1 as their mean. From 30 questions in the test the male minimum score was 33 and the maximum score was 77. As for the female the minimum score was 47 and the maximum score is 83.

Table 2. Experimental Pretest

Group	N	Minimum	Maximum	Mean
Exp Male	10	37.00	77.00	51.3000
Exp Female	10	27.00	77.00	49.2000

The respondent for experimental group was chosen by their TOEIC score. Those whose grade is B or which score is above 80 but below 84.5 is in the experimental group. As we can see from the table above, the experimental group which consist of 10 male and 10 female got 51.3 and 49.2 as their mean. From 30 questions in the test the male minimum score was 37 and the maximum score was 77. As for the female the minimum score was 27 and the maximum score is 77.

Table 3. Control Posttest

Group	N	Minimum	Maximum	Mean
C-Male	10	23.00	77.00	52.4000
C-Female	10	53.00	87.00	67.0000

After 30 days, the respondent in the control group that did not receive anything as the treatment was tested again to see the difference. As we can see from the table above, the control's group male got 52.4 again and the female got 67 as their mean. From 30 of the question as the pretest the male minimum score was 23 which are lower than the pretest and the maximum score was 77 which is same as the pretest. As for the female the minimum score was 53 and the maximum score is 87. Both of the minimum and maximum score for the female in this group is higher than the pretest.

Table 4. Experimental Posttest

Group	N	Minimum	Maximum	Mean
Exp Male	10	37.00	70.00	56.2000
Exp Female	10	33.00	73.00	50.9000

After 30 days, the respondent for experimental group whose treatment is to play the chosen game which is *Criminal Case* was tested again with the same 30 questions. As we can see from the table at the previous page, the minimum score was 37 for male which is the same with pre-test and 33 for female which increase comparing to the minimum from pretest. For the maximum score itself the male got 70 and the female got 73 which is both was lower than their pre-test. But, from the mean score of male which is 56,2 and female 50,9 which is higher than their pretest, we can see that there are some respondent whose score increase and affect their mean after playing the game.

From the scoring itself, there is a male who gain 30 higher score in his posttest and a female who gain 23 higher score compare to her pretest. There are also 6 males and 6 females who gain higher score but not really high and quiet close to their pretest. On the other hand,

there are 4 males and 4 females who have no improvement in their posttest. We can see it from the charts of comparison below:

Figure 1. Charts of Comparison
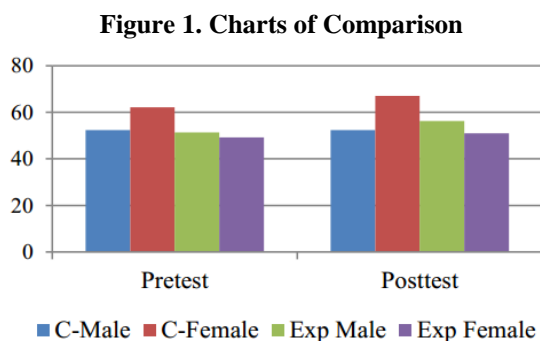
In the Figure 4.1 we can see that Control Female has quiet high increasement compare to their pretest result. It was because the female respondents in control group memorize the word and when they do the posttest they were able to fill it correctly. The control male were stagnant or remain the same in their posttest. Compare to the Experimental Group, both male and female has increase after they have the treatment for a month. The male group has significance improvement compare to the female group.

Therefore, as the result of the experiment, Ha which is "Criminal Case is effective in improving English Language vocabulary learning on sixth semester students of Polytechnic Tonggak Equator Pontianak in academic year 2015 / 2016" is accepted.

In this experiment which duration is in a month all of them feel an increasement in their vocabulary especially in the field of crime. The writer chooses Criminal Case in the first place was because of the vocabulary which is related to the crime is quite seldom used in everyday conversation. As the result, all of the participants feel that they have more vocabulary related to crime because when they did not understand about a word in the game they would open their dictionary in order to look for the meaning of that word.

In conclusion, the respondents found it effective when they learn English language through video game. Because every game has its own story, graphic and surely if the language in that game is English they can play while learning foreign language which is English Language.

RECOMMENDATION

In this study, the writer explored the effect of video games on vocabulary learning for both male and female of the sixth semester's students in Polytechnic Tonggak Equator. As the result of the study, it shows that there is an increase after the experimental group played

the game in which as expected, confirm what Schlimme (2002) and Turgut & Irgin (2009). Descriptive statistics has shown that after having treatment for a month the experimental group gain better knowledge and able to get higher score at their posttest comparing to their pretest.

Based on that, we can draw a conclusion that video game which contains story, graphic, sound, word and also has its own world in the virtual world will make students feel like inside a different situation. Especially, when they are playing online video game, the students would also have a social practice since they are connected and will interact with other people inside that game.

In short, video game would give students opportunities to learn target language especially when they keep playing the game. Their curiosity would keep giving them motivation to finish the game. Therefore, while playing the game the student would be able to learn new words as well as inside the game.

It is advised for student to use video game as the media to learn language especially an online game. Students can do communication with other player and improve their vocabulary by playing the game continuously. Especially at this time, when students can download the game to their mobile phone easily and play at ease wherever and whenever the student want. In this study, it has been discussed the result of the experiment which took time for approximately a month and it has been proven that the mean score of experiment score were improve. Although the interval was not really high but it can be infer that the student has improvement in their vocabulary learning when they play Criminal Case.

Criminal Case also help the student to improve their vocabulary learning because student feel no pressure and fun in solving the case and finding the item inside the case one by one. Since vocabulary which is related to crime is seldom to be used by the student, by playing Criminal Case itself they had had more vocabulary related to crime.

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