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CONTENTS

THE IMPLEMENTATION OF MOBILE GAMES IN READING COMPREHENSION AT SMPN 1 BANDARLAMPUNG

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Abstract

This research is quantitative research. The objectives of study were to investigate the process of using mobile games in reading comprehension and to analyze how the effects of mobile games on reading comprehension of the IX grade students at SMP N 1 Bandar Lampung in ESL context. Besides, it was to find out whether students are motivated to learn ESL by using mobile phone. The subject of research was 25 students at SMPN 1 Bandar Lampung. The instrument of research was reading comprehension test. The results showed that the students enjoyed the process as they played mobile games since it could take their interest in learning English and the mobile games could give positive effect on students' reading comprehension. In addition, students are motivated to understand the storyline of the game which then

Keywords:

INTRODUCTION

One of the language skills has an important role in mastering English is reading as it becomes a part of our daily life. Through reading, people can gain a lot of knowledge, information, pleasure, and solution for a problem. Reading is kind of a basic activity to master a certain language. Therefore, reading is one of four language skills that should be learned by students. Kiera and Anderson (2016) stated that reading is an active and fluent process involving the readers and the reading material in building meaning. Through reading, a person can develop a topic and idea. Moreover, supported by Richard and Renandya (2002) who stated that reading has a special spotlight in many second or foreign language learning situations.

Reading is one of the four language aptitudes that need to be managed as one of the indicators of academic success since it is an active and receptive skill. However, Joycey (2006) argued that reading is an enthusiastic skill, where the reader goes into the text and enlarges on it. So, it can be stated that reading has an influential role because it involves many processes and important things that happen in learning language skill. When doing reading activity, we will definitely understand a reading or what can be called as reading comprehension.

Comprehension is a crucial part of reading. Snow (2002) said that comprehension is the process of simultaneously extracting and constructing meaning through interaction which involves writing. In reading itself, comprehension means that how people can understand a text and catch up the point of reading well. Usually, to comprehend a text, people read the text word by word which was done once or more. In reading comprehension,

people can comprehend the meaning of the text by doing several things such as identify the main idea, identify specific information, find detailed information, and identify implied information and conclusion. Reading and comprehension are inseparable unit because when we read a text we will definitely understand the content of the text.

Most students do not understand the context when reading an English text. Students should be trained not to look at the meaning of the words in the dictionary, but they should be able to guess the meaning from its context. It is a good way to grasp an English text to think and understand the context of new words. Currently, the teacher's job is to make reading to be a fun and enjoyable lesson. It is undeniable that today many students do not like reading as well as reading comprehension. In today's technological era, we can do reading comprehension activities using several applications on a mobile phone.

There are many applications that can be used for reading comprehension. We know that children like to play, especially mobile games and when they are playing mobile games they get new knowledges of the things that they like. By using mobile games of puzzle type or role-play in reading comprehension, it can help students to improve their reading comprehension since players are required to understand the contents of the mission to be carried out in games.

LITERATURE REVIEW

2.1 Definition of Reading

Reading is one of the most crucial things in the process of teaching and learning English. Reading, in general, can be interpreted or defined into several definitions. Brown (2004) stated that reading is a process of negotiating meaning. In this process, readers bring their initial thoughts to the clean part of the reading process to finally reach their understanding of the meaning of the text that they read. Added by Spratt and William (2005) that reading is an activity in which readers make sense of a text being read connected to their prior knowledge. Readers do this thing because they want to get information and content from the text that they read. In searching for information and knowledge, readers must understand the text by understanding the meaning of words, sentences, and even the text itself. This statement is similar to the definition of reading. Uruquhart and Weir (1998) said that reading is the process of receiving and interpreting information coded in the form of language through print media. This process involves building and dealing with the meaning of the text. Simply defined, reading is a process of finding the written symbols, then understanding and comprehending what those symbols mean. It is one of the language skills which have a very complex process.

2.2 Definition of Reading Comprehension

Reading is an action that has function to obtain information or verify existing knowledge, or to criticize the ideas or writing style of a writer. An individual can also read for fun or to improve the learning of the language being read. Reading directs the selection of the texts by the reader. As students, they need to consider mastering reading comprehension as a way to master English as Second Language. Harmer (2002) argued that reading is an operation in which a reader, in a near situation, communicates with a text that must be learned from junior high school to university level. There are several meanings of understanding reading; the capacity to process language, to grasp its context, and to integrate what the reader already knows. Comprehension is the process of making sense of sentences, phrases, and related text. Durkin (1993) stated that comprehension is the essence of reading and the active process of constructing meaning from text.

2.3 Aspects of Reading Comprehension

There are five aspects in reading comprehension. Nuttal (1982) stated that those aspects are identifying main ideas, finding specific information, determining reference,

making inference, and understanding vocabulary.

First, identifying main idea is one of the most important comprehension skills in learning English. Determining the main idea is a useful skill which aimed to understand and discover main point of a passage.The readers are able to know the main idea by summarizing it and scanning for repetition of ideas. Main idea is normally located in the first sentence of the paragraph. Gallagher (2004) stated that the first sentence frequently explains the subject being discussed in the passage.

Second, providing description, examples, facts, event, contrast, analogy, cause and effect statistics, citation and seeking detailed details which develop the subject sentence. In order to find the specific data, the reader only reads some sentences that are relevant to the query. Knowing what the readers are looking for in a text is helpful. The readers, therefore, only read the relevant part and skip the irrelevant part(s).

Third, determining reference refers to a significant citation for specified matter. Reference also means the words which substitute for other words. It refers to words that have been used which may refer forward to ideas that will be stated.

The fourth, analyzing inference points to a cosideration made rationally and logically based on the facts presented. By using it, the readers are able to make conclunsion, interpret sentences, and understand the meaning of text. Moreover, it regularly includes two or more information and inference on text or paragraph. However, readers could not guess conclusion randomly, they should deduce it based on existent fact.

And the last is vocabulary. It is words that not only used in oral but also in written form. Furthermore, it generally aims to utilize it as intercourse between readers and text in a particular language. Harmer (2004) said that the ability to determine the meaning of vocabulary items from context is one of the most important aspects of successful reading.

2.4 Definition of Mobile Games

Games are intended specifically for children, but games are often used by adults to give them entertainment and some games are used for work. By using games, it will help children in learning. Brewster et al. (2004) said that children enjoy playing games. Nowadays, games are used not only for fun and motivation but it can provide good practice in improving speech, vocabulary, and the four language skills. There are diverse styles of games that can be played in the game world itself. Sometimes, there are still many beginners who worry about the type of game being played and do not understand it. Mencher (2004) stated that mobile games is games that are designed to operate on mobile or celular phones, same as said by IBM (International Business Machines) mobile games is games that are adapted or developed by someone into a mobile phone or other device.

2.5 Types of Mobile Games

There are many types of games in mobile games. Lewis and Bedson (1999) stated similary CIIT (Collage of Arts and Technology) stated has 8 types of mobile games.

The first is action. This type of blood-pumping game continues to be the most succesfull of all genres. Action games often test our wits and our reflexes, in addition to placing us at the core of the scene to get through any obstacle. We can see our fingers travel nonstop if you play to shoot, f ight, or live. The examples are Call of Duty, Into the Dead 2, and Injustice 2

The second is arcade. Arcade games are never aging. Most mobile arcade games, in truth, are a remake of old concepts. This is because they only need easy control, communication, and game-play. The examples are Helix Hop and Surfers of the Subway.

The third is battle royal. Not too long ago, we were familiar with this kind of mobile game, but its development is unstoppable. A battle royal game, while violent in nature, remains exciting as the players need to survive the war before the last one becomes the lone survivor. The examples are Fortnite, PUBG, and Apex Legends

The fourth is MMORPGs. Massively multiplayer online role-playing games or MMORPGs are as common as the collective word implies, making the virtual environment much larger that players do not want to leave. What makes this genre interesting these days is that games are now introducing features that are geared towards action. The examples are Warcraft World, Guild Wars 2, and Rift.

The fifth is MOBA. Multiplayer Online Combat Arena or MOBA game, a common form of mobile game in recent years, will surely get every player hooked on it. Who does not want to assume a hero's position and work to outsmart enemies and break their base with other players? The examples of MOBA games are Legends League, Defense of the Ancients (DOTA) 2, The Storm Heroes, and Mobile Legends.

The sixth is puzzle. Real stress busters are puzzle games. It is easy for them to play, and even small children enjoy them. It is too easy to play with classic puzzles like Tetris, but it sure serves the function of wasting time while having fun. Over the years, this genre, which now includes stories and great graphic designs, has evolved. The examples of puzzle games are Candy Crush Saga, Twist Hit, and Jewel Castle.

The seventh is Role-play. Once the world of PCs and consoles is dominated, role-playing games (RPGs) show that players can be taken to a setting to act out their imagination. Now widely regarded as the second most popular mobile game genre, the reasons behind their popularity are the diverse characters, heavy plots, long game-play, and fantasy settings of RPGs. The examples of RPGs are Star Wars: The Old Republic's Warriors, Final Fantasy XV, and Dungeon Rushers.

And the last type of mobile games is Digital Card. We can go alone to play a game by following the rules of its physical equivalent with our favorite card games that are now gone digital. This genre includes planning, quick movement, and good timing beyond playing with a deck of cards, as most games are time-sensitive. The examples of mobile devices are GWENT, Eternal: Card Game, and Hearthstone.

2.6 The Advantages of Mobile Games

By using games, teacher can facilitate the learning process with effective and fun lessons. Besides, using games in the teaching and learning process provides opportunities for students to learn and to engage in competition. Students' participation have them intrinsically motivated to understand a game which make them continue to follow teaching and learning activities effectively.

Martini (1995) said that the game is one of enjoyable activities and provides opportunities for young people to learn foreign languages in a fun and relaxed way. The game really helps students to make learning foreign languages very enjoyable and can be easy to learn. According to Anonymous (2003), there are three advantages of mobile game

The first is huge potential of consumer. At this point, the population of citizens who have smart-phones in developing countries is greater than those who have computers at home. The demand of enthusiasts for mobile phones is greater than the other potential market for platforms such as PlayStation and GameBoy. The number of mobile phones used today is more than one billion, and will rise as expected.

The second is portability. In contrast to the others, GameBoy has sold more console games because people choose to play games that can be played at any time in the modern period. For individuals, portability is a significant thing. A cell phone may not be a good gaming tool instead of a modern console or computer, but people will carry it all the time.

And the last advantage of mobile games is network. Smartphone is an online game enabling network computer, but there are still some deficiencies on it.

METHOD

This research applied quantitative research. According to Setiyadi (2018), quantitative design aims to investigate a theory have been existed and the researcher should look for the data to support or reject it. The instrument of study was reading comprehension test. The sample of research was XI 1 class of SMPN 1 Bandar Lampung. Moreover, it was consist 25 students. There were two steps of the study; data collection and data analysis. To collect data, I asked students to take a reading test (pre-test). After that, students were asked to play a mobile game that has a reading context. After students played the game, students were asked to return to do the reading test (post test). After collecting data, I compared the results of the pre-test and the post-test by using Statistical Package for Social Science (SPSS) in order to know whether the students' reading comprehension will be better or not after implementing mobile games.

RESULTS

4.1 Result of Validity

In checking the validity of the test, inter-rater validity was used. There were three English teachers in SMPN 1 Bandar Lampung involved to check the validity of the reading items that has been made before. Each of them was given a checklist table to be filled out. Then the raters made an assessment on each reading item by giving points range from 1 to 4 with the specification; 1: Strongly Inapprioriate, 2: Inapprioriate, , 3: Appropriate, and 4: Strongly Appropriate. However, one or two raters gave two points for number 6, 11, 16, 24, 29, 36, 37, 38, 39, and 40. Hence, to decide whether those items can be used or not, item analysis should be conducted.

4.2 Result of Reliability

Moreover, the reliability of the test was also needed to be checked whether it has good reliability or not. Hence, reliability test using Pearson Product Moment in SPSS was carried out. Split half method was adapted in this analysis which means that the test items were divided into two parts. The result reliability of the test is served in the table below.

Table 4.1 Reliability Test

Reliability Statistics			
Cronbach's Alpha	Part 1	Value	.826
		N of Items	15[a]
	Part 2	Value	.806
		N of Items	15[b]
	Total N of Items		30
Correlation Between Forms			.612
Spearman-Brown Coefficient	Equal Length		.760
	Unequal Length		.760
Guttman Split-Half Coefficient			.759
a. The items are: X1, X2, X3, X4, X5, X6, X7, X8, X9, X10, X11, X12, X13, X14, X15.			
b. The items are: Y1, Y2, Y3, Y4, Y5, Y6, Y7, Y8, Y9, Y10, Y11, Y12, Y13, Y14, Y15.			

The result of the reliability statistics above shows that the Guttman split-half coefficient of the test is 0.759. Based on the criteria of reliability test, 0.759 is considered high reliability.

4.3 Level of Difficulty and Dicrimination Power

Last but not least, to know the final result whether the items can be used or not, items analysis such as level of difficulty and discrimination power were conducted. Those two analyses considered good and bad items. For good items, they can be distributed to the students while the bad items should be dropped or changed.

As the result, there were ten items that should be dropped. Those were items number 6, 11, 16, 24, 29, 36, 37, 38, 39, and 40. The dropped items were considered too easy and too difficult to be answered by the respondent which means that those items were bad. So, at the end, there were only 30 items used in this research, those were items number 1, 2, 3, 4, 7, 8, 9, 10, 12, 13, 14, 17, 18, 19, 20, 21, 22, 23, 25, 26, 27, 28, 31, 32, 33, 34, and 35.

4.4 Result of Normality Test

Normality testing was run to determine whether the collected data in both tests were in normal distribution or not. It was the basic assumption to conduct *Repeated Measure T-test*. In addition, *Saphiro-Wilk* formula in SPSS was used to examine the distribution of the students' scores. There were two hypotheses applied in this analysis.

a. *H0* :The distribution of the data is normal

b. *H*1 : The distribution of the data is not normal.

The significance used to decide the normality result is 0.05 with the criteria:

a. *H*0 is accepted if the result of the normality test is higher than 0.05(sign>0.05).

b. *H*1 is accepted if the result of the normality test is lower than 0.05(sign<0.05).

Furthermore, the result of the normality tests of pretest and posttest is presented in the following table.

Table 4.2 Normality Test

Tests of Normality							
	Kelas	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	Df	Sig.	Statistic	Df	Sig.
Hasil	Pretest	.149	25	.156	.949	25	.232
	Posttest	.172	25	.054	.951	25	.265
a. Lilliefors Significance Correction							

From the table above, it can be seen that the significance value of pretest is 0.232 and the significance of posttest is 0.265. The values of both tests are higher than 0.05. Hence, it can be concluded that H0 is accepted, meaning that the results in pretest and posttest have normal distribution.

4.5 Result of Pretest and Posttest

The two reading tests have been taken by the students before and after they played mobile games in order to know their effect on the students' reading comprehension. After that, their scores in both tests were calculated using SPSS ver25 to find out the answer of the proposed research question. Additionally, below is further discussion of the analysis result of the tests.

Table 4.3 Distribution of Students' Scores

No.	Score	Fi-Pretest	Percentage	Fi-Posttest	Percentage
1	41-45	3	12.0	0	0
2	46-50	5	20.0	0	0
3	51-55	4	16.0	0	0
4	56-60	4	16.0	1	4.0
5	61-65	2	8.0	3	12.0
6	66-70	4	16.0	9	36.0
7	71-75	2	8.0	5	20.0
8	76-80	1	4.0	4	16.0
9	81-85	0	0	3	12.0
	Total	25	100	25	100

Overall, most of the students received the score below 60 in pretest which then increased in posttest. There are16 students who got the score range from 41 to 60. However, only one student who got score between 56 and 60. Additionally, in the range of 61-65, there are only two students who got this score in pretest and three students in posttest. After that, most of the students in posttest acquired the score around 66 to 77. On the other hand, only four students who could get the scores in the range of 66 to 77 in pretest. Moreover, there are two students who got the score around 71-75 in pretest which then increased to five students during posttest. Then, there are only one student who got the score between 76 and 80 while in posttest there are at least four students who got the score in this range. Last, none of the students got the score above 80 in pretest. However, there are three students who achieved the score around 81 to 85.

After that, from the students' scores, I calculated the mean in pretest and posttest including the gain. It is used to know the increase of students' score before and after playing mobile games. The outcome of the calculation can be seen in the table below.

Table 4.5 Mean and Gain of Students' Scores

	Mean	Gain	T-value	Sig.
Pre-test	57.24			
Post-test	71.64	14.4	9.936	.000

Table 4.5 shows that the mean of pretest is 57.24. On the other hand, the mean of posttest is 57.24 which is higher than pretest. Besides, from the result of the gain calculation, it can be assumed that students' scores were rose by 14.4 points. Hence, based on the findings above, it can be said that students got a high improvement on their reading comprehension after playing games for several days.

Table 4.6 Paired Sample T-test

Paired Samples Test

		Paired Differences							
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
					Lower	Upper			
Pair 1	Posttest - Pretest	14.400	7.257	1.451	11.404	17.396	9.921	24	.000

The table above is the computation of Paired Sample T-test generated from SPSS. From the result above, it can be seen that the significance value of two-tailed is 0.000 which is lower than p = 0.05 (0.00 < 0.05). Besides, it is also showed that the t-value is 9.921. It means that the t-value is higher than t-table (9.921 > 2.0639). Those findings prove that the students got significant improvement in terms of their reading comprehension after being asked to play mobile games.

DISCUSSION

This research has been done for a week by following the stages in data collecting technique. The sample of the research was 25 students at SMPN 1 Bandar Lampung. Firstly, the students were asked to take pretest which consists of 30 multiple-choice questions. The students also mentioned the games that they like to play. After that, they had to play mobile games. In this step, I suggested the students to play games like The Sims and Roblox. After letting them playing those mobile games, a set of posttest questions were distributed to them. Both pretest and posttest were conducted online using Google Form.

Additionally, from the data taken during the research process, it was found that mobile games could give positive effect on the students' reading comprehension. It was found that their scores were improved from the first to the second test. Besides, the students enjoyed the process as they played mobile games. It is because mobile games could take their interest in learning English. As stated by Baliu and Machmud (2017) that it offers prevalent wireless technology for students to foster their individual learning in a fun way. Mobile games boost students' enthusiasm to learn because they unconsciously learn English by receiving the information while playing games. Besides, students are motivated to understand the storyline of the game which then affects their understanding of English text. As stated by Nadhif (2021) that video games influence students to perceive the narrative side of the video game.

Furthermore, by playing video games, students' literacy awareness was improved. It makes the students get used to read reading materials. This habit is important since reading is a part of communication that should be mastered by the students. Hence, they have to acquire reading ability in order to communicate well. Ningtyas (2016) said that games highlight the importance of literacy practices, especially in reading text. Besides, it can also improve their ability in comprehending the topic of a text. Added by Komala and Rifai (2020) that while playing games, the students actively use their own understanding of the topic to predict plot of the game by considering their experience. Hence, it is applied in the reading activity, students get used to understand the text easily by combining the information from the text and their knowledge related to the topic. As the result, the students' reading comprehension skill can be improved through playing mobile games. It can be concluded that through this research, it is proved that mobile games can affect students' reading comprehension positively.

CONCLUSION

Reading is one of the most important processes in learning a second language. with the process of reading one can draw meaning, analyze word by word and then one can get new information and knowledge. In this day and age, many students use mobile games that use English and require students to read the text provided to continue the mission of the games. After reading the contents of the text, students will get an understanding as a result of reading. From the analysis data obtained, it can be concluded that there are significant results in the use of mobile games on reading comprehension. it can be seen that the significance value of two-tailed is 0.000 which is lower than $p = 0.05$ ($0.00 < 0.05$). Besides, it is also showed that the t-value is 9.921. It means that the t-value is higher than t-table ($9.921 > 2.0639$). Those findings prove that the students got significant improvement in terms of their reading comprehension after being asked to play mobile games.

From this study, it discovered that mobile games could be useful for students in reading comprehension. It improved students' reading score after implementing mobile games in learning process. It also could make learning process in a fun way which aimed attract students' attention. Because of that, it could promote students' enthusiasm and motivation in reading comprehension. Then, it can be students' problem solving in reading English sentences. For the result, the students will be more conceive in reading English sentences.

1 Acknowledgement

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