

AN ANALYSIS OF THE IMPACT OF MULTIPLAYER ONLINE BATTLE ARENA (MOBA) GAMES TOWARD LISTENING COMPREHENSION

MENGANALISA DAMPAK MOBA GAME TERHADAP LISTENING COMPREHENSION

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Abstract

The user of online games in this world has increased rapidly year by year. The last data has shown that there are 699 million active users around the world. Indonesia is become one of the most country who consumed the online game. This research aims to determine, how online games are played by the students, the causes of the students play the online games and the effect of the online game or MOBA game on the students' listening comprehension as the main goal. This research used Mixed-method. The data is used questionnaire, listening test, interview, and documentation. 62 students have taken for the sample. Based on the research that has been done, the researcher can conclude that the online game gives the impact to the listening comprehension of the students at SMKN 6, Samarinda. It proved by the mean score pre-test and post-test in experimental group was 69.67 that increased into 84.03 after treatment. Therefore, the display data of sample T-test has shown that value sig. (2-tailed) is $0.00 < 0.05$ with the R square 0.76. It means there is significant influence of playing online game on the student's listening skill of 76%.

Keywords: Impact, Online Game, MOBA, Listening Comprehension.

Introduction

The online game is one of the popular activities today. The estimation of the world online games around 699 million active users and worth over USD12.7 billion (Gong, Chen, & Lee, 2020). This entertainment is growing up rapidly in our society year by year. Most people taking their leisure time to play it. The online game is a multiplayer game that can play by more than one user at the same game. Player involves connecting their network like wired or wireless LAN or WIFI and 4G mobile broadband as internet connection (Chen, 2014). The online game is not only to fill the leisure time as refreshing activity. It already becomes an alternative and important consideration in education. Digital games are

already used for cognitive learning (Machfiroh, Rahmansyah, & Budiman, 2021).

According to Pursel (2015), we can use the game approach not only for interactivity, but the combination of online game approaches and virtual worlds could lead to success in online learning of education. Besides the lack of interactivity and motivation of online learning, Pursel believes that this combination is effective to overcome that current issue. He also mentioned many researchers focus on how to use game-related designs and implement them in educational strategy.

The types of MOBA games that extremely popular today are such as Free Fire (FF), PUBG (Player Unknown Battle Ground), League of League (LOL), MLBB (Mobile Legend: Bang-Bang). Those games

are multiplayer games that able to play more than one player at the same time. The writer mentioned types of those online games because of the writer also playing them and know about those game. Especially MOBA games like Mobile Legend: Bang-Bang (MLBB). People move away to this genre of games, called Games Transfer Phenomena (Gutierrez, 2021).

The problem that we know today parents will worry about their children when their children playing an online game, they afraid of their kids to be addictive of playing a game, they also afraid online game changes their children's state of mind and psychology. On the other side, Frank, Sanbou, & Terashima (2006), are already stated there is no significant change in the state of mind and psychological before and after playing the game either. Besides that, there are some improvements that measurable after playing an online game, such as communication skills, typing skills, and knowledge.

We can relate to the fears of those parents because of their affection and they want their children to grow up well. On the other side, according to Clark, Gary, Dianne, Acham, & Sara (2018), in their journal of health stated 9 of 10 parents agree teens spend much time playing online video games. The students who play online games ranging from elementary school, junior high school, senior high school, even college students. The writer will be fair in this study with mentioned either positive or negative effects of online games. Being addicted to online games is not good for children and students' bodies and mentality. Qin & Nan (2010), Stated that online game addiction is one of online addiction, it will decrease the immune of body and mentality, this is disaster for them if they will be addictive of playing the game. Parents need to protect their children by giving a cool-down (CD) to their children from playing online games.

To be addicted to playing an online game will poke the healthy itself, there are some negative effects caused by online game addiction. There is no invisible fact that playing an online game makes people can interact with other people, but sometimes people forget that they also have a social life in real life. However, according to Perry et al. (2018), the size of negative impact is very

small, and the number of the problem with the research that exists a state that it is the only hyperbola when these small effect sizes might be overestimated.

Nevertheless, the writer wants to mention the extreme case of this small number of this negative effect of playing an online game. It is about a Korean male who died because he was addicted to playing online games and he spends a crazy much time playing. He was playing War of Craft for around 50 hours. He didn't move away and get up as long as two days. This is extremely dangerous when someone addicted to playing an online game, how he didn't feel hungry and thirsty during 50 hours because of obsession and did nothing but playing an online game. The study has proven that starvation and dehydration also caused heart failure, then heart failure will killing someone caused someone away from keyboard (AFK) forever (Pitsch & Quevedo-Torrero, 2010).

However, the writer believes that online games give extreme bad impact if someone addictive to playing online games. It is about doses and how someone consumes something. The online game is kind of drink water, if we consume too much water with other word overdoses, it will cause bad effect to us like hypernatremia or water intoxication, even causes the death. It was happened to one of a participant of most drink much water in 2007, her name is Jennifer Strange, she died few hours after became a contestant of drink much water. Furthermore, if we play online games with enough doses, there are many positive effects of playing this online game include MOBA game. For example, Frank et al. (2006), said that in their research online games can improve communication skills, typing skills, and knowledge of the person and many more positive effects.

In addition Perry et al. (2018), stated playing the online multiplayer game in particular also can allow building and maintaining an interpersonal relationship. Then, Vlachopoulos & Makri (2017) cited to Tseklevs et al. (2014) mentioned the benefits using serious game for education as detail such as achievement and reward, interactivity and feedback, motivation and competition, playfulness and problem-based learning, collaborative learning, progression and repetition, as well as realism and immersion.

So, the previous studies have shown that online video game addiction is rare and the negative effect of online game is only the small size problem of online game cases (Stockdale & Coyne, 2018).

However, there are many positive effects offered by playing an online game, according to Fuad (2017), this entertainment give some positive effect on social and cognitive development, and then also influences the development of problem-solving of students, the connection between eyes and hand-movement and also a motoric skill. We can also learn English from using the game (Andreani & Ying, 2019). As we have known, in learning English there are four essential skills that we can learn, such as listening, speaking, reading, and writing (Supina, 2018). In this study, the researcher wants to investigate the impact of online games on English listening skills. There are some reasons why the researcher conducts the online game's impact on the English ability of students, especially on listening comprehension.

Methodology

2.1 Research Design

The researcher uses mixed methods in this research. It is the combination of quantitative and qualitative methods. Cresswell (2014), states mixed methods research design is the combination qualitative and quantitative and data in the single study.

The writer uses sequential explanatory as the model of this mixed methods approach. The quantitative and the qualitative one used sequentially. Hafsa (2019), explained that in sequential explanatory design the researcher first executes the quantitative inquiry the study, analyzes the result of research, then explain the result with more elaborately taking aid of the qualitative data.

2.2 Population and Sample

The sample of this research consists of 62 students, which is divided into two classes, namely class of XI.TPM 1 and XI.TPM 2. The writer has taken two classes for the sample of the research. They are class XI.TPM 1 as the experimental class and XI.TPM 2 as the controlled class.

2.3 Data Collection

2.3.1. Questionnaire (Quantitative Method)

The researcher used questionnaire to collect the quantitative data. Questionnaire is very popular in social science for collecting quantitative data. It is a research method consist of some questions that are sequentially and logically gathered in order to collect quantitative data from the research subject or sample (Quwaider, Alabed, & Duwairi, 2019).

According to Quwaider et al. (2019), questionnaire has some disadvantage such as it cannot used for children or the problem that needed specific explanation. And also the time that needed for getting the feedback after the questionnaire shared online to the sample from the researcher because the situation today still in pandemic covid-19.

2.3.2. Test (Quantitative Method)

In order to know the increasing score of the students in listening skill, the researcher give test to the sample. The researcher gives students a listening test about steps how to play mobile legend for beginner by using Google form. There are two test that used in this research consist of pre-test and post-test.

a. Pre-test

Before conducting the treatment, the researcher gives pre-test to the students to measure their listening skill by giving them listening questions about MOBA game.

b. Post-test

The researcher has done post-test after conducting the treatment. This step is to find out the students of listening skill after treatment.

2.3.3. Interview (Qualitative Method)

After the researcher has been collected the quantitative data, the next step is the researcher use interview to get the qualitative data, the writer use semi-structure for the interview.

In this study the researcher uses participant observation, where the researcher directly engage to the location and mix with them to collect the data that needed by the researcher in this study. In this observation there is possibility for the researcher to play online game, this is hoped to get some information as detail.

a. Interview

Interview chose to know deeply related to the impact of online game to the student's

listening comprehension on their vocabulary and pronunciation. Type of interview that used by the researcher is semi-structure interview to make sure the question and answer can be done systematically with elaborate to collect the relevant data. The researcher must trained person to be interviewer and ready to spend lots time if possible, effort, and skill. Then the interviewer can do face-to-face, phone call, or group interview (Quwaider et al., 2019).

b. Documentation

Documentation is needed to collect the data. It can be a report, picture, recording audio and the relevant data.

2.4 Data Analysis

Data analysis of this research used sequential technique, the writer analysis the quantitative data first, after that followed by analysis of qualitative data.

2.4.1. Quantitative

According to Bolarinwa (2015), questionnaire is predetermined series of questions used to collect data. In this study, the instrument will use questionnaire. For the data analysis of this study will use descriptive analysis approach and inferential statistic to determine the result of data from the sample.

a. Normality Test

Normality test used to measure the data has normal distribution or not. If the score of signification > 0.05 means sample/population has normal distribution. On the contrary, if the signification scores < 0.05 means sample is not have normal distribution. *Kolmogorv-Sminorv* test has used by the researcher to test the normality test of the data. The researcher used PSPP to cook the data.

b. Hypothesis Test

The hypothesis as follows:

H0: There is no significant influence between variable

Ha: There is a significant influence between variable

The analysis of which hypothesis was accepted refer to the significance value ($\alpha = 5\%$). Null hypothesis (H0) would be rejected and Alternative hypothesis (Ha) is accepted when the value (sig.) < 0.5 .

2.4.2 Qualitative

After the researcher analyzing the data of quantitative, the researcher used Miles and Huberman theory to analyze the qualitative

data. There are three current flows of activity of this method such as data reduction, data display, and conclusion.

3. Findings and Discussion

3.1. Quantitative

The finding of the quantitative data has received by the researcher from questionnaire and pre-test and post-test of listening test.

3.1.1 Questionnaire

Questionnaires have been done to describe how the uses of online game among the students as the first research objective. Actually, there are 23 valid questionnaires that distributed on this research. As the result for the intensity point the table 1 below.

Table 1. Do students spend their time more than 5 hours a day to play MOBA game?

Respond	Percentage	Quantity
Strongly Agree	4.8%	3
Agree	9.7%	6
Fairly Agree	59.7%	37
DisagreeStrongly	22.6%	14
Disagree	3.2%	2

The result obtained from questionnaire, including 23 questionnaires that have been shared to the sample. As the result 59.7 % fairly agree and 22.6% disagree for the students spend their time to play online game more than 5 hours a day.

3.1.2 Pre-test and Post-test

There are 10 listening questions that distributed to get the data. The result of pre-test and post test mean score of experimental group is indicated in table 2 below.

Table 2. Mean score of experimental group

Experimental Group	Pre-Test	Post-Test
31 Students Amount		
Mean	2160	2605
	69.67	84.05

The result of mean score in experimental group increased from 69.67 to 84.05. Those numbers did not prove there is an influence

yet. So, it needed data analysis to found the answer of hypothesis on this research.

3.1.3 Normality test

This step aims to measure the data has normal distributed or not. Normality test result indicated in table 3.

Table 3. Normality test

Experimental Group		Pre-test	Post-test
<i>N</i>		31	31
Normality Parameters			
	<i>Mean</i>	69.68	84.03
	<i>Std. Deviation</i>	24.96	13.07
	<i>Negative</i>	.18	.21
Kolmogorov-Smirnov Z		1	1.18
Asymp. Sig (2-Tailed)		272	105

The result has shown that the value of Sig (2-Tailed) both of pre-test and post-test higher than 0.05. It indicates the data has normal distributed.

3.1.4 Paired Sample T-test

The data of Pre-test and post-test have been confirmed has normal distributed, next formula was Paired Sample T-test. It has been used to analyze the influence of MOBA game towards Listening Comprehension. The hypothesis provided by table 4.

Table 4. Paired Sample T-Test

	T	Sig. (2talled)
Pre-test Experimental & Post-test Experimental	5.33	.000
Pre-test Controlled & Post-test Controlled	4.74	.000

The result of the data above indicates there is significant influence of free variable towards the bound variable. The value of experimental group has Sig. (2-talled) $0.000 < 0.05$. On the other word, there is significant effect of MOBA game towards Listening comprehension.

3.1.5 ANOVA

The last but not the least of this research is also analyzed the percentage of the effect of Multiplayer Online Battle Arena Game towards Listening Comprehension. It measurable by get the result of ANOVA table.

Table 5. ANOVA

R Square	Adjusted R Square	Std. Error of the Estimate
87	.7675	6.49

The result of the table 5 above indicates the significant impact of MOBA game towards Listening Comprehension by 76%. The number has taken from R Square of the ANOVA table.

3.2 Qualitative

3.2.1 Interview

In this semi-structure interview the researcher takes 5 interviewees to participate on this research. The interviewee will have a chance to speak freely about their experiences of playing MOBA related to the question that already prepared by the researcher. This qualitative method used for examining, to extend, and deepen the result of quantitative data.

3.2.2 Display of Interview

There are 3 main questions that asked directly to the interviewees via one of MOBA game room, which is Mobile Legend.



Figure 1 Mobile Legend Room

The first question explores how often the research subjects play Mobile Legend game. They understand fully the first question that has asked to them. The participant answered with various answer, Muhammad Rizky Saputra grade XI TPM 1 is one of who strongly agree to spend his time about more than five hour a day, he has the pre-test score 90 and post-test 100. The score has increased around 10 points after treatment. He claimed he play this MOBA game if he had free time “*gabut*” only, and 3 other participants said they play this online game every day. Then Andika Prasetyo Iskandar XI TPM 1 added if he plays this mobile legend since 2017.

The second question explores how many hours the students spend their time to play this MOBA game. In respond to this question, Andika Prasetyo Iskandar spend more than 3 hours a day, Alex spend almost 7 hours. Then Rizky stated it depend of his mood.

This question explores the research subjects’ thought on the language of the game. All of the participants stated that their English skill influenced by playing this game. Muhammad Rizky Saputra XI TPM 1 claimed that this MOBA game gives impact to his English skill, but not big enough. Alex said by playing this online game his English skill has improvement. He added this game is very influence his vocabulary in English. Include Andika and Sardani XI TPM 1 also stated that this moba game influenced their English Listening skill.

Conclusion

The data has proved that MOBA game media can improve the ability of listening of students. The implementation of this media in improving listening skill is interesting for the students. Based on the data there are 62 students has participated on this research. Moreover, there is significant improvement on students’ achievement from pre-test and post-test after treatment. It showed on the

average score of pre-test in experimental group was 69.67. Meanwhile, the average score of post-test in experimental group increased into 84.03. for example, Muhammad Rizky Saputra grade 11 TPM 1 (student’s code 30) on experimental group, he strongly agree that he spend his time more than five hours a day, he got the score of pre-test 90 and the score of post-test has increased around 10 point after treatment, which is 100.

Even though the average score has increased, it does not mean there is an influence of this media of online game towards listening skill of students. Therefore, the display data of sample T-test strengthen the data in advance with value of Sig. (2-talled) 0.00 smaller than 0.05. This result also proved that there is significant impact of MOBA game towards Listening Comprehension.

The result of this research did not end with that, by knowing the result of simple linear regression test of model summary, it shown that R square 0.76 meaning the influence of free variable on the bound variable is 76%.

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