

# THE EFFECT OF ONLINE LEARNING USING QUIZZZ APPLICATION TO IMPROVE ENGLISH READING SKILLS OF HIGHER EDUCATION STUDENTS

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## Abstract

In this current era of technology, the use of online-based learning media that suits the needs of students can improve their learning skills, so teachers need to know the media criteria that must be applied to attract students' learning interests and those materials can be well received by students. Quizizz is one of those quiz-shaped and 4.0-based apps which is already popular among higher education. Quizizz can be used to train reading skills, especially students in English because in the application many features allow students to enhance their reading interest. The purpose of this study is that researchers will identify the influence of the Quizizz application on students' reading ability. The method used in this study was experimental. The instrument used is a test sheet. For data collection techniques conducted is to conduct a pre-test at the beginning of learning and a post-test at the end of learning, so that it can be seen the influence of the application of Quizizz application, in this case, improve students' English reading skills.

**Keywords:** Online Learning, Quizizz Application, Reading Skills, Higher Education Experimental Research

## Introduction

The development of technological innovation increases rapidly as a trend in this era. This change is quickly known through the information that can be accessed in any situation by many people. Unconsciously, the implementation of technology automatically shifts the daily activity of the post-millennial generation in the term of lifestyle, social interaction, economic and even education (Sarica & Cavus, 2009), Therefore, as the generation who will have habitual with the existence of technology, the learning process, especially in the education field, should be integrated into the use of technology itself.

The use of English as an international language has been modified with the integration of technology to support the communication in this digital era. However, the fact is most Indonesian students are still struggling and acquiring a foreign language, English to support integration between the learning process with technology. Teachers need to apply innovative media and technology in the teaching and learning process. Based on observation, there are some problems faced by students in learning English,

one of them is reading ability. The situation becomes the challenges and problems faced by students in English learning are specified in reading comprehension (Yadav and Zhou, 2017)

Therefore, one of the crucial areas is learning English even at the basic level. There must be a basic ability in English that is reading that must have a big influence. According to Pardo (2004), reading can provide any information that is conveyed by the author through the medium of word and writing. Besides, reading is a process used to find the meaning of each word in the language. Especially reading is indispensable even today most of the technology is already in English. Learning English reading skills is important. Students are being asked to process the information from their text through intellectual engagement, analysis, and interpretation of the text.

Additionally, reader will perform the reading process. It will be done and utilized to discover information through the utilized words or composed language. Reading is likewise had to know the responses to a specific inquiry or issue for which someone reads. This is the fact that showed the importance of teaching reading. The reading part of the English course is on understanding the information and answering the questions. At no phase of the educational framework, students are being asked to process the information from texts by themselves through an intellectual engagement, analysis, and translation of the messages. Reading is not taught properly in scientific methods. Teachers also do not have a significant exercise for that. Haque (2006: 133) stated that teachers fail to know their students' reading ability, and they ignore it in the teaching and learning process. According to him, the responsibility for this failure is both students and teachers.

Many difficulties are faced by the students in reading, often they are lazy because of the difficulty of interpreting information from reading, lack of motivation in reading, difficulty in pronouncing some words, still lack of English vocabulary and lack of self-confidence. The most recognized reason for a student's failure in reading ability is, they still lack vocabulary. In every paragraph or even in each sentence they still find difficulties and reduce their reading interest. Therefore, monotonous learning is too boring and makes their reading enthusiasm subside (Seyabi et. al, 2015)

Based on the problem, Unun (2015) said that the fact that many components speak English, then it should be the purpose of the application of teaching and learning in collaboration with technology-based media whether it is a learning application or even a game application. As we know, nowadays the improvement of education in Indonesian is growing rapidly along with the improvement of technology.

Therefore, one of the things to solve the problem, researchers implemented Quizizz application consists of English reading strategies. Some researchers have done about Quizizz application can improve students' reading ability. Here, Quizizz is an online assessment tool that can be used as a learning activity that provides a fun method and allows students to practice using smartphone technology. Researchers use this app because the media is one of the learning models (Ju, 2018).

Numerous researchers have done their research on the implementation of Quizizz to improve students' reading ability. Therefore, their research still explored high school students, and here the researcher aims to see the result of the implementation of Quizizz for college students. The cognitive level of college students may be different for

high school students, so the researcher will look at the result of whether implementing Quizizz still can give a positive impact on college students' reading ability.

## **Literature Review**

Technology has rapidly covered many fields of life, including education. Furthermore, teaching activity has integrated with technology that makes it more effective and efficient. In teaching English, there are four essential skills to be acquired. One of them is reading skills.

Harmer (2008) argued that reading becomes the essential skill in acquiring a language. When the students comprehend what they read, they will get a better result. Moreover, reading comprehension is a sophisticated ability that develops gradually from a simple to a complex exercise. Since reading comprehension is complicated, students need to learn skills to understand the concepts and meanings discussed and presented. A process can be successful when it combines students' abilities. Including adhering to the definition that is important to get specific information, solve problems through reading, work to understand the idea of following each reading. Anderson (2016) defines reading as a process of the meaning of the written text. That is what needs harmony that is much related to the source of information. Furthermore, it is believed that the collection of components in reading provides an exquisite framework for basing the design, teaching, and testing of development courses (Liu, 2010)

Harmer and Marzban (2007: 201 - 202) stated that the reading principle includes 1. Teachers encourage students to do a lot of reading, 2. Students should engage with the reading text, 3. Teachers encourage students to be responsive towards the contents of the reading text rather than emphasize the construction, 4 Prediction is an essential factor in the reading process, 5 Teachers must be adaptive with the assignment to the topic during intensive reading text usage. 6. Excellent teachers make use of a whole reading text.

Moreover, with digital technology, teachers can use various platforms to support their teaching. One of them is by using the Quizizz platform. Some studies claimed that using Quizizz can improve the reading skill of the learners.

Quizizz is one of the digital and online learning media that consists of the quiz, survey, game, and discussion feature. Quizizz can be used to substitute for another application such as Kahoot. It is an excellent application to assist students in checking their comprehension and improvement during the learning process. Moreover, Quizizz questions are randomized for all the students. The teacher can provide exercises as an additional worksheet. The questions consist of a multiple-choice section with two to four possible answers.

According to Baeta Bury (2007), Quizizz is an amiable online application that can be a formative assessment. It can help teachers in assessing their students' ability in language, as well as the curriculum. The implementation of Quizizz app is explained by Chandler (2015) includes a tool that can make the teacher turn introductory quickly and activity reviews into great activities with more than one player freely. It is compatible

with all devices and browsers and allows teachers to create and use existed activities. No username or password is required. Furthermore, students can log in to the Quizizz website and type the code prepared by the teacher. After finished, Teachers will get detailed reports on the whole downloadable student responses report. In addition, Quizizz contains several unique gamification features that do not exist in other free applications. For instance, Quizizz feature is designed to be adaptive to students instead of being encouraged by teachers. The teacher's dashboard does not only facilitate an accurate real-time update in every student's progress. It also allows them to personalize every learning activity.

Quizizz application also has an option that lets teachers mix up the questions' order, decide if they want to utilize the timer feature. Also, it has a leaderboard that provides the list of the correct answers when the quiz ends. Moreover, it gives much-needed quizzes. More importantly, Quizizz gives teachers great feedback regarding their students' performance.

Furthermore, several studies have been conducted to find out the role of Quizizz to improve students' reading skills. A study by Nadia (2018) was done to examine the use of Quizizz application to increase reading comprehension skills, principally in the descriptive and narrative text of students in high school education. The result was Quizizz can be implemented to boost the reading skill since the outcome result is better than using conventional ways.

Another research conducted by Rasyid (2021) used different participants of the tenth-grade students at the high school level. The result showed that Quizizz application could increase students' reading ability, particularly in reading descriptive text.

On the other hand, both the research only discusses at the high school level and have not explored if the result would be the same at the higher education level. Therefore, this current research aims to explore the use of Quizizz in improving student's reading ability at the college level.

## **Method**

### ***Research Design***

This research employed experimental as the research method. Experimental Research is research used to find out the influence of particular treatments on individuals in controlled conditions. Controlled conditions themselves are numbers converted results of the study. In the analysis stage, researchers utilize the statistical analysis method (Sugiyono, 2011: 72). Experimental design is one of the forms of experimental research because in this design researchers can control all external variables that affect the course of experimentation. Thus the internal validity (quality of the implementation of research design) can be high.

The researcher used an experimental design to measure the use of Quizizz in enhancing students' reading skills. Arikunto (2006) stated that an experimental study aimed to find out whether there is the impact of the variable studied or not. As supported by Donald Ary that experimental design attributes to the conceptual

framework within which the experiment is conducted. The essential criteria are the appropriate design when testing the particular study's hypothesis.

Sugiyono (2015) argued that several experimental research designs could be in a study including the first one is Pre-Experimental Design, and continued by True Experimental Design, and then, Quasi-Experimental Design. The research design refers to a plan or strategy used to answer research problems (Christensen, 2005).

The type of this study is Pre-Experimental Design as described by Sugiyono as follows: It is a Pre-Experimental Design since the design is not yet an earnest experiment. There are external variables that are contributing to forming dependent variables. Therefore, the outcome of the study is dependant on variables that are not influenced by independent variables only. It happens by the fact of the absence of variable control and randomly selected samples.

Researchers used a pre-test and post-test group that was designed by these steps: 1. conducting a pre-test to measure the dependent variables; 2. implementing the experimental treatment X to subjects prepared; 3. arranging a post-test, to measure the output of dependent variables. Distinction refers to the experimental treatment application. Therefore, they are examined by measuring the pre-test and post-test scores (Ary, 2010). Moreover, this study design is as follows:

Table1. Group Design of Pre-test and Post-test

Pre-Test	Treatment	Post-Test
O <sub>1</sub>	X	O <sub>2</sub>

Source: (Emzir, 2014)

The more detailed model is based on these three steps: a. Providing a pre-test in a reading test to the dependent variable (to measure initial reading comprehension skill) before performing the treatment. b. Implementing the treatment. The process has been prepared initially for the research subject based on the method of the game of application. c. Conducting a post-test to examine the dependent variable when the treatment is over.

### ***Sample of the Research***

Subjects of the current study were students of the D1 English Primary School Teacher Education Department (PGSD) consist of 25 students of the second semester. Researchers chose the subject because they had experience learning online using Quizizz in English D1 classes. Besides, the department actively implements the subjects contained in Quizizz, where PGSD students must also study them. Therefore, researchers want to know the influence of Quizizz application on PGSD students.

### ***Data Analysis Techniques***

The data are collected by the inferential statistics method. The percentage result in the score used to find out the student's skill, particularly in reading comprehension. Researchers interpret data in some ways:

- Researchers collected the test result.
- Researchers give scores for each according to the criteria in the rubric.
- The data required is organized in form of tables
- Researchers determine the score in average using the following formula:

a. The average mean score

$$\bar{x} = \frac{\sum_{i=1}^n x_i}{N}$$

$\bar{x}$  = Mean (arithmetic score average)

$\sum x$  = The total number of the whole scores

N = Total subject numbers

b. Percentage of score

$$P = \frac{f}{N} x 100\%$$

P = The percentage

F = Score frequency

N = Total subjects

c. Classifying student's scores into the following criteria according to Arikunto (2002: 245):

**Table 2.** Classification of Score

No	Category	Score Range
1.	Excellent to very good	84-100
2.	Good to average	68-83
3.	Fair to poor	51-67
4.	Very poor	34-50

Researchers then measure the deviation result and standard deviation with a T-test and hypothesis test. They use hypothesis testing to prove the significant differences regarding achievements of Quizizz online learning at the PGSD Department of the University of Muhammadiyah Gresik, which was selected as the Experimental subject and Control subject. This hypothesis stage uses a t-test (independent test) is to find out the difference in the average of two groups that weigh each other. It is how to determine the fascinating decision-making rules or criteria of the contrasting measuring regulations:

- If  $t_{count} > t_{table}$ , so that  $H_0$  rejected and  $H_1$  accepted, it concluded that application of Quizizz has positive impact to increase comprehension of reading of student.

- If  $t_{count} < t_{table}$  then  $H_0$  rejected, it refers that Quizizz application is not affecting the advancement of students' reading comprehension.
- The level of significance  $\alpha$  is 0,05 and  $dk = N-1$  based on t table by using t distribution table.

After going through several steps to obtain data, the researcher gained the results of pre-test as well as post-test scores. Here is the finding of the result in detail deals with the improvement of the score of students from pre-test until post-test students experimentally are being in this following table:

**Table 3.** The Progress of Students' Scores

Variable	Pre-test score	Post-test score	Progress
Independent degree	56.08	72.06	16.52
Frustration degree			

Data above indicates that the mean score of the pre-test from the first variable (independent level) and second variable (frustration level) is 56.08. Furthermore, the mean score of post-test from both variables is 72.06. Based on those results, it can be said that the mean score of the post-test is higher than the pre-test mean score. There is a 16.52 improvement mean score. It can be concluded that the treatment with Quizizz has an impact on students' reading ability.

**Table 4.** Outcome of Pre-test Score

No	Category	Range of Score	Frequency	Percentage
1	Excellent to very good	84-100	0	0%
2	Good to average	68-83	6	24%
3	Fair to poor	51-67	11	44%
4	Very poor	34-50	8	32%

From the result, we can see that the outcome of student's learning specifically in reading skills during the pre-test are classified 0% as excellent to very good, 24% as good to average, 44% as fair to poor, and 32% as very poor. here, the highest percentage is 44% that refers to fair to poor. Based on the outcome of the current percentage, we can see that the degree of the reading comprehension of the students is relatively low before the implementation of Quizizz.

**Table 5.** The Result of Post-test Score

No	Category	Range of Score	Frequency	Percentage
1	Excellent to very good	84-100	5	20%
2	Good to average	68-83	11	44%
3	Fair to poor	51-67	9	36%
4	Very poor	34-50	0	0%

The table above shows that there are significant differences between pre-tests before. It has a higher percentage and frequency than pre-test results so that there is an impact in terms of the outcome of student learning especially in reading ability during the post-test. For more detail, the result using test instrument is category *good to average* has the highest percentage, 44%. Followed by *fair to poor* 36%, then 20% for *excellent to very good* and there is no results of *very poor* category. From the outcome, it can be concluded that there is an improvement in students' skills in reading after the implementation of Quizizz.

To investigate the score of pre-test and post-test of the students, researchers utilize t-test testing in the following table:

**Table 6.** Result of t-test of the Students' Achievement

Variable	t-test Value	t-table
X <sub>1</sub> X <sub>2</sub>	4.640	2.064

As presented in the table above, it shows the score of both variables of pre-test and post-test. The result of the mean score based on the t-test showed a value of 4.640. Furthermore, the t-table mean score is 2.064. The conclusion is Quizizz treatment proved that it can improve students' English reading skills because the result of the t-test mean score is higher than the t-table.

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## Discussion

This part described the explanation of the findings above. It was taken based on the collection of data that has been investigated by the researcher. First, the use of Quizizz treatment to improve the level of independence of the students in reading ability is based on two texts, descriptive text as well as recount text. Referring to the comparison of pre-test and post-test, there was a positive impact in students' scores from pre-test to post-test. It is clarified according to the significant differences between pre-test and post-test scores. During the first trial of the pre-test, most students still have difficulties in answering the questions, because most of them still underline some of the vocabularies that they had not comprehended yet.

Meanwhile, after applying the treatment, many students have already known more about the vocabulary in that text and they could read easily. Students have many changes after the treatment is done. Therefore, we can conclude that the treatment can increase the level of independence, especially in reading. Based on Gillet and Temple's theory (2009), the independent level refers to the level of difficulty the student where they can read easily and freely. Comprehension of what is reading is gorgeous, and silent reading is rapid since almost the whole words are recognizable and understandable. Students had to stop few times to identify new words. Mostly, oral reading is fluent, and often different from the written text that interferes with comprehension.

Secondly, the use of Quizizz to improve the level of students' frustration in reading ability. It was used similarly with kind of text they are descriptive and recount

text. This research aimed to use Quizizz application to improve their frustration level reading ability. The comparison of pre-test and post-test results of frustration level also has a significant development. They also underline the difficult vocabulary in the text but the differences are they have poor comprehension of the text and they read it slower than independent level. They also could not analyze the vocabulary in the reading, but after being given the treatment of Quizizz, they indicate positive changes in reading ability level. Furthermore, in the post-test, students can answer the questions correctly and underline the difficult vocabularies that they found on the descriptive texts. Moreover, we can conclude that students improve their level of frustration in reading activity after being given the treatment.

As supported by the theory of Gillet and Temple (2009) who stated that frustration level refers to the level when the text is too difficult in terms of vocabulary or concepts to be read successfully. Moreover, comprehension is poor when the main ideas are being forgotten or misunderstood. Both loud and silent reading is usually slow and tire, having many times pause to analyze the unfamiliar word. Oral reading divergences are frequent and often resulting the reader losing the sense of what was being read. Therefore, due to the difficulty, students are frustrated in attempting to read material for a long period, and they also often failed. In short, Quizizz can improve students' reading skills of PGSD Department at the University of Muhammadiyah Gresik, can improve both the level of independence in reading ability and the level of frustration in reading, especially when identifying the components of reading such as reference, the main idea, supporting details, understanding vocabulary, and creating the inference.

Many kinds of research also showed that Quizizz has a positive impact on students' reading ability. The research conducted by Rasyid., M. J. (2021) to examine the students' reading improvement using Quizizz of the tenth-grade students of SMA Negeri 1 Pangkep, showed that Quizizz improves students' reading skills, particularly in reading descriptive text. Another research conducted by Nanda., S. R. (2018) on the use of Quizizz to improve students' reading comprehension skills at SMKN 3 Takalar, also showed that students' reading ability

## **Conclusion**

Before the implementation of Quizizz app, students' reading ability was low and could be improved after the implementation of Quizizz app. According to the result, we can see the difference in the mean score between pre and post-test with the result of the pre-test is 56.08 and 72.6 for the post-test. It shows that there is an improvement in the treatment using Quizizz application. Moreover, we can say that the Quizizz application can improve student frustration level reading ability with an improvement score up to 16.52. Therefore, it is revealed that the Quizizz app is an ideal platform that can boost students' reading comprehension at the college level.

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