# Using Quizizz To Improve Reading Comprehension Learning

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## Abstract

This study aimed to improve students' reading comprehension achievement using Quizizz. This study used classroom action research with two cycles. There were three meetings in each cycle. The subjects were 22 students from Year 11 at a vocational high school in Kradenan, Blora Central Java, Indonesia. The researchers used three instruments to collect the data, namely tests, observation sheets, and questionnaires. The result showed that the students' reading comprehension achievement could be improved by using Quizizz. This is evident by the increased mean scores of the test results from 57.73 (pre-test) to 75 (post-test) in cycle I, and 60.00 (pre-test) to 81.36 (post-test) in cycle II. The results of the t-test in cycle I and cycle II were significant, whereas the percentage of completeness in pre-cycle, cycle I, and cycle II also increased significantly. Finally, there was an increased positive response to using Quizizz as most students chose "agree" to learn reading comprehension using Quizizz in cycle I, and "strongly agree" in cycle II.

*Keywords: Quizizz, Reading Comprehension learning.*

## Okuduğunu Anlayarak Öğrenmeyi Geliştirmek İçin Quizizz'i Kullanma

## Öz

Bu çalışma, Quizizz kullanarak öğrencilerin okuduğunu anlama başarısını artırmayı amaçlamıştır. Bu çalışmada iki döngülü sınıf eylem araştırması kullanılmıştır. Her döngüde üç toplantı yapıldı. Denekler, Endonezya, Blora Central Java, Kradenan'daki bir meslek lisesinde 11. sınıftan 22 öğrenciydi. Araştırmacılar verileri toplamak için testler, gözlem sayfaları ve anketler olmak üzere üç araç kullandılar. Sonuç, Quizizz kullanılarak öğrencilerin okuduğunu anlama başarılarının geliştirilebileceğini göstermiştir. Bu, test sonuçlarının ortalama puanlarının I. döngüde 57.73'ten (ön test) 75'e (son test) ve II. döngüde 60.00'dan (ön test) 81.36'ya (son test) artmasıyla belirgindir. Döngü I ve döngü II'deki t-testinin sonuçları önemliyken, döngü öncesi, döngü I ve döngü II'deki tamamlanma yüzdesi de önemli ölçüde arttı. Son olarak, çoğu öğrenci I. döngüde Quizizz kullanarak okuduğunu anlamayı öğrenmek için "katılıyorum" seçeneğini ve II. döngüde "kesinlikle katılıyorum" seçeneğini seçtiğinden, Quizizz'i kullanmaya yönelik artan bir olumlu yanıt vardı.

*Anahtar Sözcükler: Quizizz, Okuduğunu Anlama öğrenme.*

## Introduction

It is normal to use a mobile application in the 21st-century (Alsuhaymi & Alghamdi, 2021). Many teachers have used technology to assist them in the teaching-learning process. New technologies offer opportunities to engage students in learning in a new way. This modern pedagogical paradigm gets reinforced by teachers as they use Information and Communication Technology (ICT) during the teaching and learning process (Khafaga & Shaalan, 2021). At present, the Corona virus disease (Covid-19) outbreak in 2019 has affected the whole world, including the teaching-learning process. The system of teaching-learning has changed from offline to digital or online learning. Online learning is one form of ICT-based learning that is being applied today, and it has become a popular approach to effective learning in the wider academic community (Rios et al., 2018).

Many problems have been found related to the student acquisition of basic language skills. As a global language, English provides access and connection in nearly every aspect for aspiring professionals to have a good career in this digital era. Reading is one of four essential language skills that should be mastered (Peng et al., 2020). However, one of the issues identified during the preliminary research is that students have less interest in learning reading (Gupta & Woldemariam, 2011). Because of this, students may have a lack of understanding of the explicit and implicit meanings contained in a text, which makes their daily reading achievement stagnant. Students find the conventional method used by teachers in the teaching and learning process tedious and lose their interest to learn (Mobinizad, 2018). Considering the issues that have been identified about students' reading skills, this study focuses on the research on reading comprehension to discover new methods that may be used to improve students' reading skills.

Many learning methods can simultaneously be used to manage students' anxiety and improve students' reading comprehension (Zaccoletti et al., 2020). However, due to issues these learning methods may have, this study offers another method to assist teachers in the learning process. Nowadays, considering that Millennials cannot be separated from technology, especially the smartphone, it is proposed that one of the new potential methods to motivate students to learn is through gamification (Alhuwaydi, 2020).

### Gamification

Gamification is the use of game design elements in non-game contexts (Deterding et al., 2011). According to Kapp, gamification is applied to motivating, promoting learning, solving problems, and engaging people (Kapp, 2012). In other words, gamification is combining content, game, and technology which aims to motivate students' learning experiences in a classroom during the teaching and learning process. Practicing digital technology is believed to be effective in increasing students' interest and allows them to focus more on the teaching and learning process in class (Mobinizad, 2018; Pourhosein Gilakjani & Sabouri, 2016). Moreover, the use of this technology is not only expected to increase students' interest in learning, but also especially improve their reading achievement (Loewen et al., 2019). Another study also supports the notion that practicing digital technology may increase student motivation (Peters & Bodkin, 2021).

### Quizizz

There is a great range of software and applications for gamification, such as Kahoot, Quizizz, Duolingo, FlipQuiz, and so on (Juniarta et al., 2020). However, in this study, the researchers chose to

focus on the use of Quizizz as a learning medium. Quizizz is an e-learning platform that combines game-design elements with self-paced questions and instant feedback to help students learn toward mastery (Pitoyo et al., 2020). It is an online assessment tool presented as a fun multiplayer classroom activity that allows all students to practice together with their computer, Smartphone, and iPad (Yan mei et al., 2019). Furthermore, this research aimed to investigate the effectiveness of Quizizz in assisting students to improve their reading comprehension skills. Quizizz can be used anywhere and whenever with an internet connection. It means that students can use Quizizz out of the classroom as long as the devices are connected to the internet. With a lot of practice, the students' reading skills are expected to improve (Mohamad et al., 2020).

Research on the use of Quizizz as the learning media for reading has been conducted by Nanda (Nanda et al., 2018). The study used pre-experimental design as the research methodology to measure the use of Quizizz application in improving reading ability. Based on her research, she has found that students' independence and frustration level on their reading ability improve after the pre-test and post-test treatment using Quizizz.

Another study was conducted by Juniarta et al. (2020). They used classroom action research as the research design to investigate the improvement of students' reading achievement by implementing integrated learning by using Quizizz. The study found that the mean score of students' reading achievement significantly increased after using Quizizz. This means that using Quizizz can improve students' reading achievement. Further, although the use of Quizizz to improve reading comprehension learning has been explored by many studies, no research which solves this problem can be found. Hence, this study found an opportunity to examine the use of Quizizz to improve students' reading comprehension learning.

## Research Question

Considering the issues of the use of teaching methodology, this research aims to investigate the use of Quizizz as a new method to improve reading comprehension learning. Based on the previous background, the research question is formulated as follows: "How the implementation of using Quizizz to improve reading comprehension learning?"

## Literature Review

Reading is a process of seeing and understanding the contents of a written language, both out loud and silently. Furthermore, reading comprehension can be defined as the ability to understand a text, to analyze the information, and to interpret correctly what the writer is stating. Reading is a part of education that is involved in an academic context, where readers get the process of learning from what they read (Grabe, 2009). Reading is useful for language acquisition. Reading comprehension is a complex ability involving multiple tasks. To be able to comprehend what is read, a person needs to be familiar with text structure and topic, as well as aware of the reading strategies, how to use these strategies in the processing of material, and word recognition (Pang, 2008).

Reading skills is one of four basic language skills that should be mastered by students. Mastering reading skills can improve other language skills. Reading is a necessary acti vity in life with which one can update his or her knowledge (Aritonang et al., 2019). For this reason, reading skill is an essential tool for academic success. Therefore, reading is the most important activity in any language class, not only as a source of information or a pleasurable activity but also as a means of consolidating

and extending one's knowledge of the language. Reading is essential to widen the mind and to understand the foreign culture.

Basirun (2004) identifies some general indicators in reading comprehension, as follows: (1) Finding ideas from a particular paragraph; (2) Answering the "5W+1H" (What, Who, Why, Where, When, and How) questions about the main idea; (3) Answering questions on specific information; (4) Completing the sentence by using a specific word from the text; 5) Answering "5W+1H" questions by using particular information; (6). Finding synonyms and antonyms of a particular word; (7) Finding the meaning of a particular word; (8) Finding explicit and implicit information; (9) Concluding the text; and (10) Finding the reference of a word in the text. These indicators imply that comprehending a reading text is not as simple as it seems.

Nowadays, the use of mobile technology is not limited to sending short messages, chatting, video calls, web surfing, and so on. The education field has also begun to use mobile technology to assist in the teaching-learning process (Villaflor, 2019). Mobile-Assisted Language Learning (MALL) deals with the use of mobile technology in language learning. MALL is considered as a new way of language learning that allows the learners to learn by using their mobile devices outside of the classroom (Kukulska-Hulme, 2009; Kukulska-Hulme & Bull, 2009; Wang & Higgins, 2006). The students do not need to sit in class or in front of their computers to learn languages. MALL allows motivated users to learn English independently whenever and wherever (Barakati, 2013; Lai & Zheng, 2018). It means that by using a mobile device, the students have the opportunity to learn anywhere and whenever they want (Khafaga & Shaalan, 2021). Kukulska-Hulme, & Bull (2009) also pointed out that the use of the mobile device is expected to have considerable potential for achieving individual learning goals and needs and providing more opportunities for learning outside the classroom. The more they have the opportunity to learn, the more they can understand what they learn. Due to the use of MALL method, the teaching-learning process is not limited to learn during the class. Also, Kolb (2011) believes that mobile devices may help students to learn more effectively, and they may find MALL tasks enjoyable (Davie & Hilber, 2015). Considering that a mobile device has become a part of students' lifestyles, the use of this learning method will most likely suit them. The mobile device may be perceived as a toy that could be converted into learning tools (Kolb, 2008).

Gamification is the use of game-based mechanisms and game thinking to engage students, motivate action, promote learning, and solve problems (Kapp, 2012). Meanwhile, Deterding et al. (2011) defined gamification as the use of game design elements in non-game contexts, which is fairly new and rapidly growing. Moreover, Prensky noted that game features can provide the entertainment part of the educational design needed to engage the learner (Prensky, 2001). Thus, gamification has become a potential method that can be used for motivating students to learn. This method is expected to help students to increase their learning achievement. Using audio, video, and mobile tools of communication has a positive impact on students' online learning experiences (Rios et al., 2018). Gamification is the incorporation of game design elements into a target system while retaining the target system's instrumental functions (Liu et al., 2017). The gamification design would add features, be focused on stimulating user participation, and keep all original instrumental functionalities of a target system, whereas a game would sacrifice some instrumental functionality of a target system to sustain its entertainment value. Gamification

has a shared ground on the idea that game elements can make learning experiences more engaging (Zakaria & Hashim, 2020). According to Hamari et al. (2014), a recent study on academic gamification research found that most studies on the subject verified that gamification can work, even though it has different effects.

Quizizz is an e-learning platform that combines game-design elements with self-paced questions and instant feedback to help students learn for mastery (Zhao, 2019). Mei et al. (2019) said that Quizizz is an online assessment tool as a fun multiplayer classroom activity that allows all students to practice with their computer, Smartphone, and iPad. Wibawa, Astuti, and Pangestu believed that Quizizz is a medium that can motivate students in the teaching-learning process with its attractive features (Wibawa et al., 2019). Quizizz was designed as student-paced, in which the questions appear on each student's screen, so they can answer questions at their own pace, and review their answers at the end (Mohamad et al., 2020). Quizizz has two different application modes. It can be used in real-time in class or given as homework. It means that by using Quizizz, the teacher can create a quiz that can be used for pre-assessment, formative assessments, lesson hooks, test reviews, post-assessments, and homework assignments.

Like most gamification applications, Quizizz is also free for download. Quizizz is a flexible gaming platform, in which any teacher can use for any content area that they teach (Wibawa et al., 2019). It also has a Blog section that highlights new features or techniques for using the platform. By using Quizizz, the teacher does not have to project the question on a board or screen as each student has access to their question-and-answer gameplay. The teacher also can add existing questions from other Quizizz to his or her own Quizizz with 1-click and make edits. Another advantage of using Quizizz is that the teacher can view student reports and which questions that they answered correctly and incorrectly. Thus, teachers can inform instruction or address the learning gaps (Zhao, 2019). Quizizz also can be integrated into the Google Classroom. The questions in Quizizz are randomized automatically for each student so that the students cannot cheat on each other. Once the student has answered a question, fun Memes are added. These can be customized to fit each classroom community, school environment, or classroom content, as well as to provide positive feedback for them. Even though Quizizz is a free and unpaid application, using Quizizz still requires internet access which may need certain cost. Besides that, Quizizz has a limit in the types of questions. It is perfect for facts and remembering information, but not advantageous for more elaborate questioning. Teacher also must ensure that all students have their own device as this platform could be a problem when access is limited.

## Methodology

### Research design

This research employed classroom action research aimed at improving students' reading comprehension achievement by using Quizizz. Classroom action research is an activity carried out by teachers with other people or researchers which aims to improve the quality of the learning process in the classroom (Priyanti et al., 2019). It uses a form of collaboration, in which the teacher is a research partner. Each of them focuses their attention on aspects of classroom action research according to their expertise: teachers as learning practitioners, and the researchers as designers and critical observers. In

practice, this classroom action research uses the Kurt Lewin model in which there are four main steps in a cycle, namely: (1). planning, (2). action, (3). observation, and (4). reflection.

The steps according to Zhao (2019) are as follows:

1. Planning

Planning is the preparation made by researchers for the implementation of classroom action research, such as making lesson plans, preparing the game on the Quizizz learning media, making questionnaires and observation sheets, and making pre-test and post-test questions.

2. Action

Action refers to the implementation of learning which is guided by the lesson plan that has been prepared with Quizizz. There were three meetings of each cycle. The first meeting was a pre-test followed by learning. The learning process began with the delivery of basic competencies and indicators as well as learning objectives and materials. The researcher explained how to use the Quizizz to students. Furthermore, the teacher asks students to solve several questions in the Quizizz. The last meeting was conducted as a post-test.

3. Observation

Observation is an activity carried out by researchers to observe the impact of the actions taken. This activity is carried out by observing the activities of students and teachers together with the implementation of Quizizz in the teaching-learning process.

4. Reflection

Reflection is an evaluation activity regarding the changes that have occurred or the results obtained from the collected data as a form of the impact of the actions that have been designed. Reflection is carried out to find out the weaknesses and strengths that occur during the learning process. The teacher and the researchers discussed the results of the implementation of learning and observations of actions in the implementation of the cycle I to make improvements in the implementation of learning in cycle II.

**Participants**

The participants were the students in Year 11 of a vocational high school in Kradenan, Blora Central Java, Indonesia from two classes, namely the Automotive Engineering class and Accounting class. This study only involved one Year 11 Accounting class consisting of 22 students. The majority of research participants were female (14 students) and the remaining were male (8 students).

**Instruments**

The researchers used three instruments. The first one is a test, which is a measurement technique involving various questions, statements, or a series of tasks that must be answered by respondents. A test is a measuring instrument consisting of questions to collect data which the research subjects must respond to. Tests are used to obtain students' reading comprehension achievement in each cycle. In

this study, the tests were the pre-test and post-test administered in each cycle by using Quizizz. The pre-test was conducted before treatment to learn the students' initial reading achievement, while the post-test was held after the students had used Quizziz at the end of the cycle to examine whether there is any significant difference on students' reading achievement (Junior, 2020). The test consisted of 10 multiple choice items and taken from the Quizizz learning media. The next instrument was a questionnaire, which included a series of questions to gather information from respondents. They were distributed to examine the students' interest in using Quizizz for learning reading comprehension. The questionnaire consisted of 13 questions which the students must respond to by selecting one out of four options according to how they feel when learning reading comprehension using Quizizz. Each question was given four options, namely "strongly agree", "agree", "disagree", and "strongly disagree". The observation sheet was used to make a note of the classroom activities during the learning process (Juniarta et al., 2020). It was used to record students' behaviors and the condition of the class during the teaching-learning activities.

**Data Analysis**

The quantitative data from students' responses to Quizizz were analyzed using software for data analysis SPSS V. 16.00. To calculate the mean and significance of the pre-test and post-test, the researchers used a t-test (Nanda et al., 2018). Next, in the questionnaire, there were 13 questions with a scale of 1-4 for the answer options. The highest score was 4 and the lowest score was 1. Therefore, the total sum of the highest score was 52 (4x13) and the lowest score was 13 (1x13). In determining the interval for each level, the following formula can be used (Widoyoko, 2012).

Intervals = (Highest Score-Low Score)/Number of Interval Classes. From the formula to find the existing interval, the following calculations can be done: Intervals = (52-13)/4 = 9.75. From the calculations to find the interval distance above, the responses can be grouped into the following categories:

Table 1.

*Categories of Student Responses*

| Students' scores | Category |
| --- | --- |
| 42.25-52 | Strongly agree |
| 32.5-42.25 | Agree |
| 22.75-32.5 | Disagree |
| 13-22.75 | Strongly disagree |

**Findings and Dicussion**

In these findings, there are two types of data, namely quantitative data and qualitative data. The findings of quantitative data could be obtained from students' reading comprehension scores of pre-test and post-test, while qualitative data can be obtained from questionnaires and observation results. The data were obtained from cycle I and cycle II. Each cycle was carried out in three meetings and had different materials. Cycle I was about analytic exposition text and cycle II was about the letter.

The result of the pre-test in cycle I showed that the students had low achievement in reading comprehension, as seen in Chart 1.
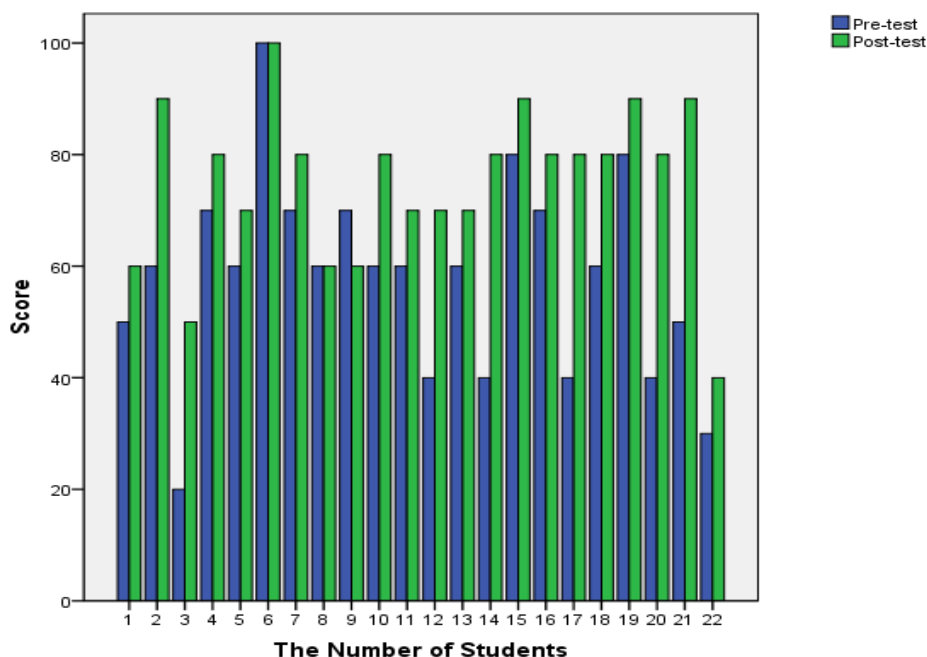


Chart 1. Student Reading Achievement in Cycle I

Table 2.

*Statistical Data on Reading Test Results using Quizizz*

| Test | Mean | Minimum score | Maximum score |
|---|---|---|---|
| Pre-test | 57.73 | 20 | 100 |
| Post-test | 75.00 | 40 | 100 |

Based on data from the pre-test results on Chart 1, seven children passed the minimum completeness criteria (the passing grade) for Year 11 English at the SMA Muhammadiyah senior high school, which was 70. Four students scored 70, two students scored 80, and one student scored 100. The percentage of students who passed the minimum completeness criteria was obtained by dividing the number of students who completed the test (7 students) by the total number of students (22 students) and multiplying the result by 100%. The percentage of students who passed the pre-test was 31.82%. In Table 2, the students' mean score of the pre-test was 57.73, which was categorized as very low. From the results of this pre-test, it can be concluded that the students' reading comprehension achievement was low. Therefore, it is important that they be given some form of treatment to help them improve in reading comprehension (Zhao, 2019).

In this cycle, there were still many students who were confused and unable to focus on doing the reading test on Google Form and Quizizz. This is likely because they were not ready for Quizzes, which was a new medium for them in learning reading comprehension. Moreover, they had never learned to read through Quizizz. Some of them protested because the reception on their device was poor, and that their internet quota was suddenly running out, etc. Meanwhile, students whose internet

quotas had run out were not prepared and did not expect to use their personal internet quotas as they were not used to participating in online learning. Observers/teachers assessed this condition and guided the students to be better prepared to face the upcoming quizzes. Teachers also motivated students to study harder and prepare sufficient quotas for future online learning. In the second meeting, they were getting used to using the Quizizz application. They looked very enthusiastic in following the learning process (Juniarta et al., 2020; Junior, 2020). Because of that, their training results in the second meeting had begun to improve. The improvement of students' reading comprehension achievement was evident in their post-test results.

As seen on Chart 1, seventeen students passed the minimum completeness criteria. There were four students with a score of 70, eight students with a score of 80, four students with a score of 9, and one student with a score of 100. The percentage of students who passed the minimum completeness criteria was the number of students who completed the test (17 students) divided by the total number of students (22 students) and multiplied by 100%. The percentage of students who passed the post-test was 77%, indicating a 45% increase from the pre-test percentage (Juniarta et al., 2020; Junior, 2020). Next, in Table 2, it can be seen that the students' mean score in the post-test was 75.00. From this result of the post-test, it can be concluded that the students' reading comprehension achievement was high (Zhao, 2019) with an increase of 17.27 from the pre-test index. Nevertheless, there was one student who did not improve in reading comprehension. The effect of learning using Quizziz on students' reading comprehension achievement in cycle I can be described as follows.

Ho: The average pre-test score and the average post-test score are the same.

Ha: The average pre-test score and the average post-test score are not the same.

The results of the analysis with SPSS.V.16.00 are as follows.

Table 3. *Results of Cycle I T-test Analysis*

| | | Paired Differences | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | 95% Confidence Interval of the Difference | | | | |
| | Mean | Std. Deviation | Std. Error Mean | Lower | Upper | t | df | Sig. (2-tailed) |
| Pair 1 Pre-test - Post-test | -17.273 | 14.535 | 3.099 | -23.717 | -10.828 | -5.574 | 21 | .000 |

$t = -5.574$, $df = 21$, Sig (2-tailed) = 0.000. It turns out that Sig = 0.000 < 0.05, meaning that Ho is rejected. Conclusion: The average pre-test score and the average post-test score are not the same. Table 4 shows a pre-test mean score of 57.73 and a post-test mean score of 75.00. This means that using Quizizz in learning reading comprehension has an effect on students' reading comprehension achievement in cycle I.

Table 4.

*Mean Scores in Cycle I*

| | Mean | N | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|

| Pair 1 | Pre-test | 57.73 | 22 | 18.240 | 3.889 |
|--------|----------|-------|----|--------|-------|
|        | Post-test | 75.00 | 22 | 14.392 | 3.068 |

After conducting a post-test, the researchers distributed the questionnaires to learn about students' interest in reading comprehension by using Quizizz. It can be seen in Chart 2 below.
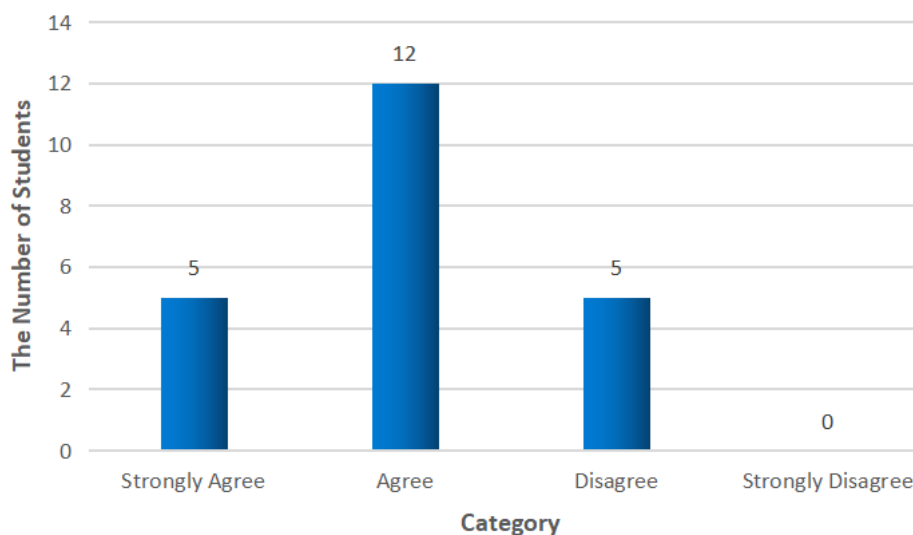


Chart 2. Student Questionnaire Responses in Cycle I

Five students chose "strongly agree", twelve students chose "agree", and five students chose "disagree". Thus, 17 students showed positive responses and only five students gave negative responses to Quizizz. It can be concluded that they were very happy and enthusiastic in learning reading comprehension using Quizizz (Juniarta et al., 2020; Junior, 2020). Thus, Quizizz could also help them to understand and think critically in doing reading comprehension tests (Puspitayani et al., 2020). This study would be considered successful if all students could improve their reading comprehension achievement and all students respond positively to using Quizizz in learn reading comprehension (Nanda et al., 2018). Therefore, the second cycle was carried out to be a success.

From the results of cycle I, there was one problem that had to be resolved in cycle II. There were still many students who did not understand how to find synonyms and implicit sentences because their vocabulary was still lacking. According Basirun (2004), two of the general indicators in reading comprehension is the ability to find synonyms or antonyms of a particular word, and find explicit and implicit information. Therefore, in cycle II, the researchers devised a strategy, namely by giving topics to be studied for students and asked them to look for information about these topics before the lesson began. This was done to make it time-efficient and easier for their activity on online quizzes in learning reading comprehension (Juniarta et al., 2020; Junior, 2020). This modification was applied during the learning process in cycle II. It made students more excited in following the online class (Juniarta et al., 2020). Nevertheless, in the first meeting, they still looked confused to do the Quizizz exercises in a short time. In the next meeting, they were more relaxed in doing the reading test questions on Quizizz because they had gotten used to using Quizizz as well as studied the topic before the lesson started (Zhao, 2019). Thus, when they did the post-test in the last meeting, they scored better than they did on the post-test in cycle I. The results can be seen in Chart 3 and Table 5.
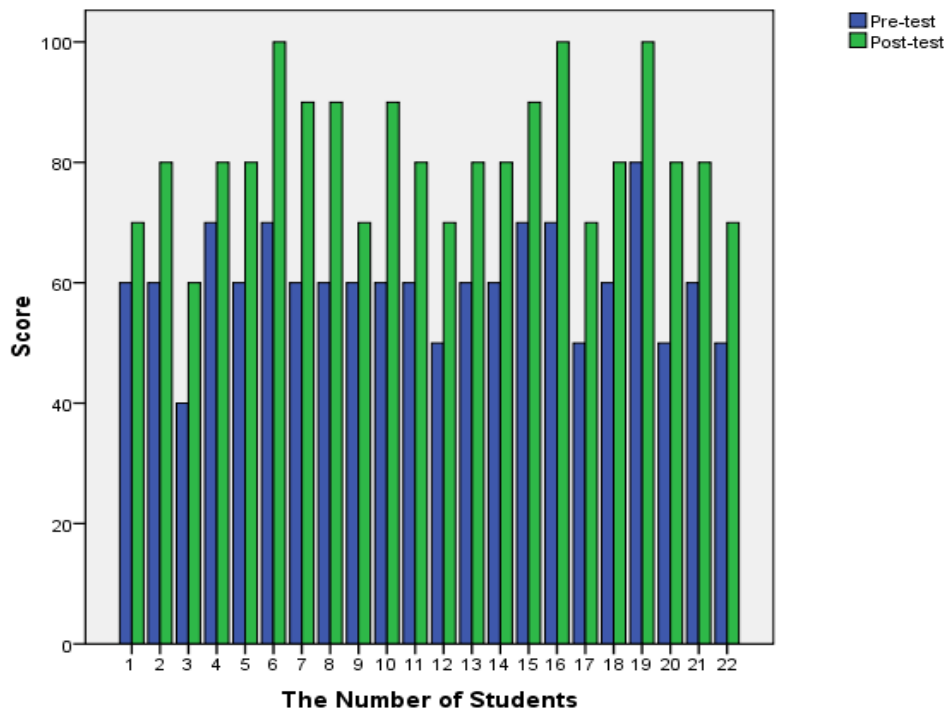
Chart 3. Student Reading Achievement in Cycle II

Based on data from the pre-test results on Chart 3, five children passed the minimum completeness criteria for Year 11 English at the SMA Muhammadiyah senior high school, which was 70. Four students scored 70, and one student scored 80. The percentage of students who passed the minimum completeness criteria was obtained by dividing the number of students who completed the test (5 students) by the total number of students (22 students) and multiplying the result by 100%. The percentage of students who passed the pre-test was 22.73%. In Table 5, the students' mean score of the pre-test was 60.00, which was categorized as very low.

Table 5. *Statistical Data on Reading Test Results using Quizizz*

| Test | Mean | minimum score | maximum score |
|---|---|---|---|
| Pre-test | 60.00 | 40 | 80 |
| Post-test | 81.36 | 60 | 100 |

Based on data from the post-test results on Chart 3, there were twenty-one students who passed the minimum completeness criteria. There were five students with a score of 70, nine students with a score of 80, four students with a score of 90, and three students with a score of 100. Thus, the percentage of students who passed is the number of students who completed the test (21 students) divided by the total number of students (22 students), multiplied by 100%. The result of the percentage of students who passed the pre-test was 95%. This result indicates a 18% increase from the post-test result in the first cycle. In Table 5, the students' mean score of post-test in the second cycle was 81.36. From the results of this post-test it can be concluded that the students' reading comprehension achievement was very high (Juniarta et al., 2020; Junior, 2020; Zhao, 2019) with an increase of 6.36 from the post-test result of the cycle I.

The effect of learning using Quizziz on students' reading comprehension achievement in cycle II can be described as follows.

Ho: The average pre-test score and the average post-test score are the same.

Ha: The average pre-test score and the average post-test score are not the same.

The results of the analysis with SPSS.V.16.00 are as follows.

Table 6.

*Results of Cycle II T-test Analysis*

| | | | Paired Differences | | | | | | |
| | | | | | 95% Confidence Interval of the Difference | | | | |
| | | Mean | Std. Deviation | Std. Error Mean | Lower | Upper | t | Df | Sig. (2-tailed) |
|---|---|---|---|---|---|---|---|---|---|
| Pair 1 | Pre-test - Post-test | -21.364 | 6.396 | 1.364 | -24.199 | -18.528 | -15.667 | 21 | .000 |

t = -15.667, df = 21, Sig (2-tailed) = 0.000. It turns out that Sig = 0.000 < 0.05, meaning that Ho is rejected. Conclusion: The average pre-test score and the average post-test score are not the same.

Table 7 shows a pre-test mean score of 60.00 and a post-test mean score of 81.36 This means that using Quizizz in learning reading comprehension has an effect on students' reading comprehension achievement in cycle II.

Table 7. *Mean Scores in Cycle II*

| | | Mean | N | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| Pair 1 | Pre-test | 60.00 | 22 | 8.729 | 1.861 |
| | Post-test | 81.36 | 22 | 10.821 | 2.307 |

The percentage of completeness in the pre-cycle (pre-test cycle I) = 31.82%, the percentage of completeness in the first cycle = 77.27%, and the percentage of completeness in the second cycle = 95.00%. This means that there has been a significant increase in the percentage of students' reading comprehension completeness, as presented in Chart 4.
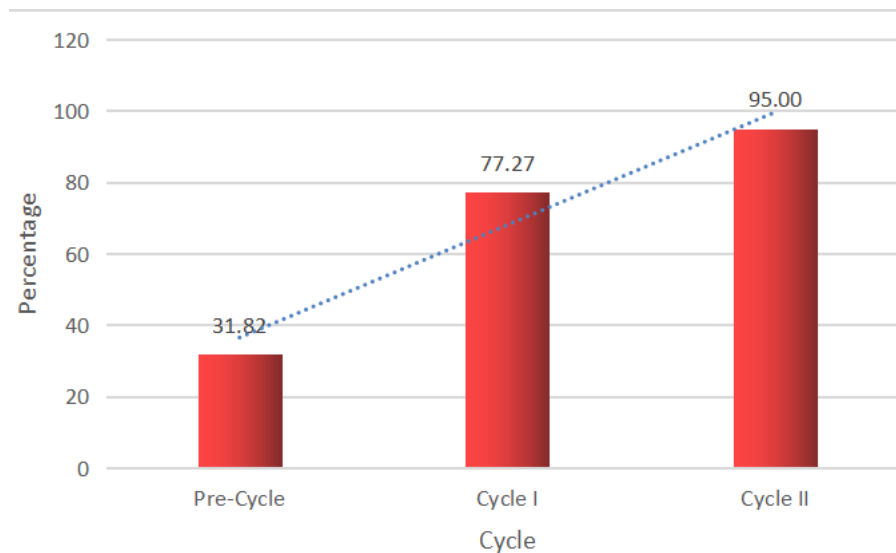
Chart 4. Percentage of Completeness in the Pre-cycle, Cycle I, and Cycle II.

After conducting a post-test, the researchers distributed the questionnaires to learn the students' interest in reading comprehension in using Quizizz, as shown in Chart 5 below.
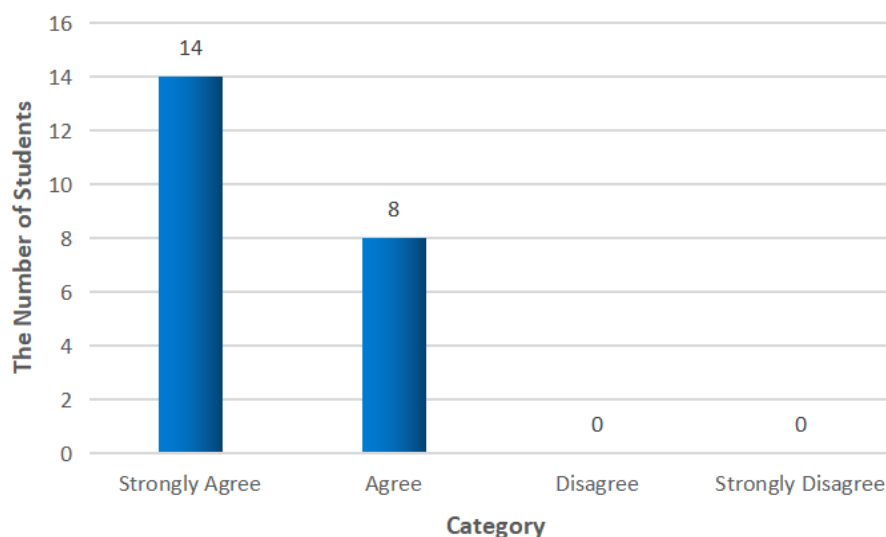


Chart 5. Student Questionnaire Responses in Cycle II

Fourteen students chose "strongly agree", and eight students chose "agree". Thus, all students gave positive responses in using Quizizz to learn reading comprehension (Zhao, 2019). The increase may be due to the modifications in an online class in cycle II. The students also became more relaxed, calm, and comfortable in doing a reading test using Quizizz. Not only that, but also their reading comprehension achievement has increased (Junior, 2020). As the purpose of this study had been achieved, there was no need to go on with the next cycle. The result of this study reflects the same finding as the study by Priyanti et al. (2019) who applied integrated learning by using Quizizz to develop good formative assignments in measuring students' reading comprehension. They developed a good formative assessment for assessing reading competency based on linguistic aspects such as social functions, the structure of the text, and the language featured. They made an online formative assignment using Quizizz based on the demands of basic competencies consisting of basic skills,

intermediate skills, as well as the advanced skill of reading comprehension. Their result is believed to help the teacher in improving their professional competence since they can develop their online formative assessment using Quizizz for assessing reading competency as part of their learning process.

## Conclusion

This research was conducted to try to improve students' achievement in reading comprehension by using Quizizz. Quizizz is a gamification method where learning language is designed in the form of playing a game to attract students' interest in learning reading comprehension. Usually, students are disinterested to practice doing the reading test and find it tedious because of their lack of vocabulary, which hinders them in understanding the meaning of the text, and ultimately lowers their reading scores. Therefore, the researchers introduced Quizizz, which is a form of gamification, in learning reading. Quizizz has many features to support reading comprehension learning such as music, real voice of native speakers, colorful designs, and interactive features to communicate with friends, teachers, and other users. This application manages to make students enthusiastic about learning English and competitive in doing the reading questions. This can be proven in the mean score in the pre-test in cycle I (57.73) which increased to 75.00 in the post-test. Nevertheless, some students' results have not improved from pre-test to post-test. Researchers conducted cycle II to correct deficiencies in cycle I. In cycle II, the mean of the post-test increased to 81.36. The results of the t-test in cycle I and cycle II were significant, and the percentage of students passing the minimum grade in cycle I and cycle II increased significantly. There was a positive response in using Quizizz from most of the students as evident by their preference in using Quizizz to learn reading comprehension in cycle I ("agree"), which further increased in cycle II ("strongly agree"). Thus, it can be concluded that using Quizizz can improve students' reading comprehension.

## Suggestions

The suggestion for educators and readers is to use Quizizz in students' reading comprehension learning to increase students' motivation and achievement in reading comprehension. Meanwhile, the suggestion for students is to learn by using Quizizz, because Quizizz can increase learning motivation among students in reading comprehension, which in turn will improve students' reading comprehension achievement.

## Statements of Ethics and Conflict of Interest

"I, as Corresponding Author, declare and undertake that in the study titled as "Using Quizizz To Improve Reading Comprehension Learning", scientific, ethical and citation rules were followed; Turkish Online Journal of Qualitative Inquiry Journal Editoral Board has no responsibility for all ethical violations to be encountered, that all responsibility belongs to the author and that this study has not been sent to any other academic publication platform for evaluation."

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