

The Effectiveness of Using a Crossword Game on Quizizz in Teaching Vocabulary

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*Ririn Andini, Eusabinus Bunau, Eka Fajar Rahmani^{abc}

¹²³English Language Education Study Program, Language and Arts Education Department, Faculty of Teacher Training and Education, Universitas Tanjungpura Pontianak, Indonesia

Corresponding Author: ririnandini@student.untan.ac.id

A B S T R A C T

Vocabulary acquisition is a fundamental component of English language learning, yet students often struggle to retain newly learned words when taught through conventional instructional methods. Although various digital technologies have been integrated into vocabulary instruction, limited research has examined the effectiveness of combining traditional crossword puzzles with the Quizizz platform to create an engaging mobile-assisted learning experience. This study aimed to investigate the effectiveness of using Quizizz-based crossword games in improving students' English vocabulary mastery. A pre-experimental quantitative design with cluster random sampling was employed to measure students' vocabulary achievement before and after the treatment. The findings indicate that students' post-test performance exceeded their pre-test performance, with mean scores increasing from 92.81 to 98.55 after participating in Quizizz-based crossword activities. Statistical analysis further demonstrated a significant improvement in vocabulary achievement following the intervention, indicating that the treatment positively influenced students' learning outcomes. These findings suggest that integrating crossword games into the Quizizz platform provides an interactive and motivating learning environment that enhances vocabulary acquisition. Therefore, Quizizz-based crossword games can be considered an effective digital instructional strategy for supporting English vocabulary learning in classroom contexts.

Keywords: *Crossword, Quizizz, Teaching Vocabulary*

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INTRODUCTION

Some of the educational applications and websites has been made and developed to assist teachers and learners to ease their studies and learning, such as Quizizz, Kahoot etc. (Hussain et al., 2023), and they were widely used in education to support teaching and learning activity. In the education society, the use of Quizizz recently has recently risen, leading to a lot of people started to use Quizizz in their teaching and learning activity (Hussain et al., 2023). Quizizz can be one of the alternatives in game-based educational tools and gives an experience where the quiz or the tools can be used in both solo and multiplayer activity to classes, making it one of the active, interactive, and joyable to the students and the teacher (Hussain et al., 2023). A lot of studies were conducted using a manual crossword printed on paper, but some also used the digitalized crossword by using the web-based application, which is the crossword labs by Rohmah et al. (2024), Setyawati (2024), Sikdewa (2023), and Istiqoomah (2022). Some studies even used Kahoot more than Quizizz in the use of crossword to teach like the study by Khaleel (2022) or by Puspitaningsih (2023). Yet, only one study that included crossword and Quizizz in the study conducted by Fauzani & Ma'rifah (2022). However, in the study which was conducted by Fauzani & Ma'rifah (2022), especially on page 37, Fauzani & Ma'rifah (2022) stated that the crossword puzzle was created on the worldwall web-based application, and not on Quizizz but other grammar tests.

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According to the studies above, the researchers found a lot of studies and researches that explored teaching vocabularies in many ways, they used various applications, they also used various types of games, from crosswords until unscramble world. According to the reviewed literature, the researcher found that some research has been done on the aspect of crosswords and Quizizz. Another research has been made in the field of Quizizz web-based application. A study by Parinduri & MY (2023) stated that the use of Quizizz is a fun and interactive medium to improve students' vocabulary acquisition and increase students' motivation, solving the problem of students' lack of motivation in learning English using traditional methods like memorization which were less engaging and less entertaining.

Through all the studies, the researcher found the novelty of this study, the students found it hard to memorize vocabulary. The moment they were struck by order to memorize at least 10 vocabularies, their mind concluded that it was hard and boring. The researcher has decided to fill this gap by testing the theories from the previous study about vocabulary game, crossword and Quizizz. All of those materials had proven that the use of those succeeded in the class teaching and learning process. The researcher decided to use the media Quizizz, even though there is no such feature in the Quizizz especially for crossword. From the researcher's perspective, the use of Quizizz was better than the other application because it gave entertaining fun music audio which we could choose, the interesting pictures, buffs like a real game, competitive leaderboards, and AI powered tool where the students could use for one of their tools. To fill the gaps, the researcher found that there is no feature itself of crossword on Quizizz and no one has ever done to combine them purely Crossword on Quizizz, not some other apps or any other web-based application. Some researchers has confirmed that both crossword and Quizizz are both entertaining, therefore the researcher is able to experiment with this specific topic of Crossword on Quizizz towards the 7th Grade of Students of SMPN 06 Pontianak under the supervisions of the school and the teachers. Based on the previous studies above, the researcher conducted an in-depth exploration of the topic at SMP Negeri 06 Pontianak during this semester. The study was aimed to find the effectiveness in the vocabulary teaching on the seventh-grade students' vocabulary skills by analyzing test items using the Crossword on Quizizz as the medium. Additionally, the study determined the validity and reliability of test items for the final semester assessment. The title of the research is "The Effectiveness of Using a Crossword Game on Quizizz in Teaching Vocabulary (A Pre-experimental on the 7th Grade Students of SMPN 06 Pontianak Academic Year 2025/2026)". This research is aimed to find out if there are any differences in students' scores in their vocabulary test before and after the use of the crossword game on the Quizizz web-based platform, and the range of the significant effect on the result of the students' vocabulary test after the use of the crossword game on the Quizizz web-based platform.

The Concept of Vocabulary**The Definition of Vocabulary**

In English, learning the vocabulary was the fundamental of English learning process. In English language, vocabulary was used in both spoken and written forms of a sentence. The vocabulary formed the base of how a sentences are structured and how grammar works. Vocabulary consisted of a list of words, which was known as lexicon. Vocabulary was defined by King (2020) as bunch of words which were used and understood by the students. Vocabulary is one of the fundamental element in any language as it was the key used in understanding any language (King, 2020). Vocabulary can be categorized into two main types: active vocabulary, which refers to words that a person uses regularly. The second one is passive vocabulary, which refers to the words that a person recognizes but does not use frequently.

Vocabulary Levels

English language are divided into some certain level. According to the Common European Framework of Reference of Language (CEFR), there were 6 types of English vocabulary levels. The Common European Framework of Reference of Language (CEFR) offered a commonly framework which described, evaluated, and compared language skills in

a different education system and research environment. CEFR divided those language skills into six levels, which were organized into three main categories which were basic, independent, and proficient users. Each of these levels described by functional descriptions which highlighted what the learner mainly used.

Basic Level (A1-A2)

A1 Beginner. At this level, learners could understand and use common everyday expressions and simple phrases to meet basic needs. In this level, the communication was not very clear and relied on a lot of support from the other person to talk with.

A2 Pre-intermediate. At this level, the students learned commonly used phrases which were relevant to everyday situations, such as sharing personal details, daily activities, and a straightforward everyday tasks that involved a direct sharing of information.

Independent Level (B1-B2)

B1 Intermediate. At this level, the students could grasp the main ideas from a clear standard texts on topics they were familiar with and could produce a short connected paragraph about subjects they were interested in.

B2 Upper-Intermediate. On this level, learners could grasp the main points of a difficult text, such as a detailed conversation in which of their area of expertise. At this level, the learners could have a regular conversation with a native speakers without feeling tired nor stressed.

Proficient Level (C1-C2)

C1 Advanced. At this level, the students could grasp a variety of complex long texts and understand the meaning which was not stated directly. On this level, the language was used in a way which was adaptable and efficient for a different situations, from daily activity and conversation, and even on a level where the learners socialize in an organization.

C2 Mastery. This level represented the near-native speaker competence. The learner could understand almost everything they hear or read and could speak or write clearly and fluently, even in a difficult situations like school or work place.

In this research, the vocabulary of the English language was the classroom objects. The everyday classroom objects were identified as the foundational vocabulary, which is the beginner (A1) to pre-intermediate (A2) level of English. According to the Common European Framework of Reference for Language (CEFR), this classroom objects vocabularies were parts of basic user category.

Vocabulary as in Part of Speech

English language itself had grammar context. This grammar was consisted of 8 parts which was called as the part of speech. They were noun, verb, adverb, adjectives, pronoun, preposition, conjunction and interjection (King, 2020). This were also proved in a study which was conducted by Asdar et al. (2023) as those 8 parts of speech were important to build a phrase. As in this research, the vocabularies which the researcher had focused on was the noun vocabularies found inside the classroom. Therefore, noun was the part of speech in the general name of vocabulary which was discussed in this research. The learning process of vocabularies can be harsh and challenging to some students, especially junior high school students. A lot of things must be learned including the vocabulary the part of speech, and some words might have been unnecessarily too long for a word as English was not everyone's mother tongue especially in a country where the English language was not the primary language (Asdar et al., 2023). Although different language had different grammatical rules, each language had its' own part of speech and one of it was the noun (T., 2023). According to Ismaili (2023), noun was the name of the beings in our surrounding.

As vocabulary was included in the part of speech, mostly as it was the fundamental block in every part of speech in any language, this has become the most important part which never could be forgotten or ignored as it was the building block itself. Vocabulary achievement

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was an element of English language learning which helped the students in their understanding on the language through their basic skill of English (Sulistianingsih et al., 2019). This researcher also stated that vocabulary achievement was a tool that facilitated and helped the students, and increased their language skills (Sulistianingsih et al., 2019). This was also supported by other researcher in the study of (Shabrina & Taufiq, 2023) whereas the vocabulary was the bridge towards 4 other language skills. The lack of vocabularies might lead to incoherence for the students in understanding and responding to other people (Shabrina & Taufiq, 2023).

According to Indriyatil & Nurlina (2023), the richer someone's vocabulary, the better the quality of the individual as it showed the wider of that someone's knowledge. Junior high school students were not equipped with the vocabulary mastery, as in the study conducted by Kusrini (2012), most of the junior high school students often got the challenges within the idea of learning English in almost all of the aspects as they were lack of vocabulary mastery. When we got older, our understanding of new sets of vocabularies and the meaning of them increased gradually, almost everyone knew that when we had exquisite vocabularies it helped us to understand more context, and it was important in the process of learning a language (Istiqoomah, 2022). According to Istiqoomah (2022), mastery of the vocabulary was important and it meant to be able to use one's knowledge effectively. Indriyati & Nurlina (2023) stated in their study, that vocabulary and the lesson in school had a strong connection, as the understanding of texts and lessons only able to be understood by the students or the other young learners if only they had some sets of vocabularies.

Teaching Vocabulary to Junior High School Students

In teaching vocabularies to the students, the vocabularies developed at the start of the lesson. In a high school classes' double period of time, three vocabulary words could be developed in a session. Most of the vocabularies' meanings are explained by the teacher before those vocabularies are used in the lesson afterward. The tables from their research shows that vocabularies are developed through the use of hint from the teacher. The process of students' vocabulary developments must be done in the beginning of the lesson whenever necessary. The vocabularies that are going to be introduced have to be a new words that haven't been exposed to the students in any condition (Ong et al., 2019). Students, especially the junior high school students face some problems in learning vocabulary, they are lack of vocabulary skills and receive a lot of distraction from their personal gadgets (Azhra et al., 2024). Although the junior high school students faced some challenges in the study of vocabularies, some studies has shown that using such game based application might help the study of students' vocabularies. It was also mentioned in the study of Bakhsh (2016), where young learners was quite difficult to teach as they were easily got distracted by other things, different to the adult learners. Young learners loved the fun in every of their activities and they also got bored easily, this made the teachers had to choose the suitable learning which included fun in it (Bakhsh, 2016). This was also proved in the study of Sulistianingsih et al. (2019), as the teachers had to make the activity to be fun especially in the junior high school. Sulistianingsih et al. (2019) believed that during junior high schools, the students were easily to get bored quickly by some factors like the time, situation, and even an exhausting material.

In the process of teaching vocabulary, the researcher had to translate the English sentences that the researcher said to expose and explain the vocabularies and their context. Some students were not equipped with a great sets of vocabularies. This caused the process of teaching and learning between the teachers and the students can be a difficult task. According to Mausariana et al. (2025), teaching vocabulary posed a significant challenge especially for English instructors as it formed the core of the language learning. It required the teacher to be well prepared to teach the vocabularies to the students who saw English as a foreign language. It is stated in the journal of (Azhra et al., 2024) in order to enhance the students' vocabularies, some specification must be made in the teaching vocabulary towards junior high school, like the use of daily vocabularies which are related to the students. It is indeed one of the important matters in teaching vocabulary towards junior high school. According to the researcher's observation at the school, some junior high school students understands English vocabularies

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the most at the daily things they see or hear, making them learn through the experience guided by the parents and the teacher. To teach the junior high school students about vocabulary, some motivation must be included into the matter. Motivations influences the students' success in learning vocabulary, making the motivation as one of the essential things in teaching vocabulary towards junior high school student. Some other researchers also finds that teaching English vocabulary towards the junior high school can be challenging and harsh. yet, they finds that using web-based learning which offers fun and challenging aspect in the teaching vocabulary (Shabrina & Taufiq, 2023).

Teaching English to students should include the four main skills: speaking, listening, reading, and writing. The language parts that should be taught are pronunciation, vocabulary, and grammar. From this, it can be seen that teaching vocabulary is an important part of the process (Kusrini, 2012). (Kusrini, 2012) were also stated that language skills were dependent of knowing a lot of words which are the vocabularies, which was why it has become very important for the students to learn a lot of words or vocabularies as it helped them became more skilled in speaking and writing the language. Although students needed to be taught by the teacher in this matter as the students needed teacher and mentor to help them acquire new sets of vocabularies. According to Kusrini (2012), there were certain important roles of the teacher who taught vocabularies. As the teacher should introduced the vocabularies within structure which the students already knew; vocabularies should also be taught as part of normal speech and real conversations; teacher should also taught the vocabularies repeatedly if it showed up within a new context; the vocabularies should be introduced repeatedly within a proper language focus with examples given within the situation where it made sense to be used; and teacher should encouraged the students to learn and use the nouns, verbs, adjectives, and adverbs which shared the same roots (Kusrini, 2012). Kusrini (2012) also stated that there were a lot of things which affected the way of teaching vocabulary, like the way the teachers taught and used the tools, as it made it challenging and interesting for both the teacher and the students. Which was why the teachers were supposed to create a good method, the one with a welcoming environment to help the students stay interested in a different activities, to make sure they succeed in learning the vocabulary (Shabrina & Taufiq, 2023). As the teachers used the online learning and teaching material, they were able to provide the students with a fresh learning space, as it gave the space for the students to get a feedback, learn new scientific ideas, and connect to many other people (Shabrina & Taufiq, 2023). Ashari & Latif (2025) also implied that, teachers were important in selecting the right teaching materials and the teachers has to use those materials in a way that fitted to the lesson, as sometime, the materials used were not very interesting which made the students less involved in the learning process.

MALL (Mobile Assisted Language Learning)

Mobile Assisted Language Learning (MALL) was defined as a method of learning languages using the existed mobile devices such as smartphones and tablets. Smartphones and tablets were counted as mobile devices in MALL because they were portable to be used while moving around in a different spots or locations. According to Agustiah et al. (2025), Mobile Assisted Language Learning or known as MALL, as it let the learners used their smartphones, tablets, and even other portable gadgets when they accessed their language learning resources. These are actually seen and used in our daily lives. Smartphones, and other portable gadgets were always around us, helped people in accessing every resources, from study resources till the entertainining resources. Some students or even teachers used one of those within their learning and teaching process, as it helped them and eased them in their prospect of learning in every aspect of learning. Today, a lot of people couldn't leave their phones or their mobile devices anywhere, as they would rather left their wallet instead of their phone (Widiawati, 2022). This habit was already a part of human's modern lifestyle, especially each person had one mobile device at least. As long as they had their mobile device with them, they were able to do their work or task anywhere they go, either on the road, at the gym, shoppings, etc. (Widiawati, 2022)

The use of Mobile Assisted Language Learning (MALL), could encourage the students in the classroom to learn language with their smartphones as the tools. The use of MALL was motivating and engaging when the student practice using their own smartphones. In the field of teaching English, Mobile-Assisted Language Learning or what were known as MALL, was becoming popular both in a formal and an informal setting (Widiawati, 2022). As we all knew that the use of mobile gadgets were very common from some years ago until now. Every school at least had one task which required the students to use their mobile gadgets like their smartphone or even other mobile gadgets. The term of Mobile-Assisted Language Learning itself came from several terms such as Mobile Learning, Electronic Learning and Mobile-Assisted Learning with their own abbreviations like M-Learning, E-Learning, and MALL (Widiawati, 2022). Mobile-Assisted Language Learning has existed for quite sometimes within the used of the application on phone, like Duolingo, kahoot, Quizlet, Quizizz (known as Wayground now), helped the language learner to improve their sets of vocabularies. According to the study of Widiawati (2022), the used of the Mobile-Assisted Learning or known as MALL was effective and improved students' ability in their English language learning process. The researcher of the study also stated that MALL could be one of the alternatives for the language learners to learn foreign languages especially in English.

The aspect of mobile assisted language learning fits the students' preference in learning vocabulary. Students give good responses in the matter of utilizing web-based technology in their phone to help and motivate them to learn vocabulary (Shabrina & Taufiq, 2023). According to (Shabrina & Taufiq, 2023), numerous researches has been done within the use of web-based application, giving the aspect of mobile assisted language learning (MALL) essence into the rteaching as the students uses their mobile phone to learn the vocabularies taught by the teacher using some web-based application, such as Kahoot, Quizizz, and wordwall.net. The use of this web-based application enable the teachers and the students to save some time for their teaching-learning ability. This is also allowed the teacher to modify it based on the needs and preference of the students and assist the students to connect to the web-based application through their mobile phone (Shabrina & Taufiq, 2023). This is proved by (Putri, 2021) in her article, one of the advantageous of MALL is saving time and emphasized collaborative learning. In this era, students are very excited and often use their mobile phone as their learning references. Therefore teachers must use this to enhance the teaching and learning process (Putri, 2021). As the use of mobile phone skyrocketing in this era, mobile assisted language learning (MALL) must be implemented in the teaching and learning sessions between the students and the teachers (Sepyanda et al., 2023).

Crossword

This crossword puzzle was one of the good interactive media of the students' vocabulary learning process. According to Muna et al. (2025), A crossword puzzle was a type if game whereas the players got clues and numbers of letters for the answers of the blank crossword. The players were supposed to fill in the grid of blank boxes by finding the correct words (Muna et al., 2025). There were many ways the teacher used, when they taught the vocabularies to their students, therefore, the teachers should have found the best method to help all the students remember the words they needed to learn in a fun ad effective way (Muna et al., 2025). One fun game that helped the students in learning English vocabularies was the crossword puzzle, as crossword puzzles added to a vocabulary lesson, the students were able to enjoy, got interested, and got motivated (Siahaan et al., 2024). This was also supported by Muna et al. (2025) as it was stated in the study, that one of the interesting way to do a fun and interesting fun games were the use of a crossword puzzle as a game which helped the students improved their vocabulary. Siahaan et al. (2024) believed that when the students worked to find the answer in order to complete the puzzle, along with it they improved their English vocabulary skills, learnt more words, and understood on how to use those vocabularies in a different situations. This believe was proven right as the research conducted by Siahaan et al. (2024) proved that the crossword puzzle game indeed good and helped the students in their

vocabulary mastery, which means this puzzle game could greatly help in building their word knowledge.

Quizizz Website Media Platform

Digital technology changed the way people learn the vocabulary, and the Quizizz was a great tool for this. Quizizz was a fun and interactive way to teach and test the students in the class as it had the features like instant feedback, gam-like elements, and personalized learning paths which made the vocabulary learning to be more interesting (Efendi et al., 2025). This statement also supported by Hasibuan et al. (2025) as he stated that Quizizz could help the students overcome their challenges in learning English vocabularies. According to Mawaddah et al. (2026), Quizizz was one of the popular tool used in English as a Foreign Language (EFL) classes, as it was the online app that turns quizzes into a fun game with features like scores, leaderboards, and fast feedback. Quizizz is a gamified learning platform that also used AI technology, this Quizizz apps let the teachers made an interactive quizzes, gave the students some tasks, and even tracked the proress in a real time (Utami et al., 2025). Irawan & Firdaus (2025) also stated that Quizizz had game like features such as instant feedbacl, leaderboards, and points, which can make learning more interesting and create a more interactive environment. According to Hasibuan et al. (2025), Quizizz was a fun and interactive game-based learning platform where the students learnt vocabulary while playing games.

Advantageous and Disadvantageous of Crossword for Vocabulary Learning.

The theory of crossword game by making students play them together on Quizizz as a game and test at the same time, changing the test into a game and enjoyable activity for the students, is forming a sensation, challenge, entertainment, and joyful in which will be the concept of this study. The sensation from crossword on Quizizz is going to give a new ambience both to the class and the teaching and learning process of English vocabularies as the game is going to be played. As the advantageous of vocabulary learning using crosswords will make the students have to write down and guess the words, making them taking more time to find the words in their dictionary. A lot of the studies mentioned in this research showed the advantageous of crossword for vocabulary learning. According to Gulo & Muhid (2024), crossword was the type of activity that helped the teachers and the students and gave the students chance to think creatively, as it served as a learning strategy to review previously taught material and as a good active learning methods for the students without reducing the core learning process. Another advantageous of crossword puzzles was that it add axcitement to the learning evaluation process by giving it the vibe of game, and this helped the students remember that material they had learned and improved their problem solving skills through solving crossword puzzle, and it also had shown to improve academic performance, critical thinking abilities, and boosted the students motivation (Gulo & Muhid, 2024).

Gulo & Muhid (2024) also stated the benefits of using crossword noted as: 1.) Improving memory. When the students face crosswords, they search through their past experiences and choose the ones that best match the clues. This helped the students to sharpen their memory skills; 2.) Practicing explanation. The crossword helped the students to practice the explanation. This method encourages students to group or explain words to form complete sentences; 3.) Developing analytical skills. For the student's crossword involved in their analytical skills. After the clues, students reviewed and analyzed their experiences, thinking about how to combine the right words to make a full sentence; providing entertainment. A lot of the researchers in their studies proven this. As a brain teasing game, where it triggered the play's critical thinking ability, crossword acts as a brain-teasing game which required a good analysis, and crosswords are a fun activity for the students. Despite all of the advantageous, crossword of course had some disadvantageous.

Crossword puzzle was not the most perfect puzzle. Therefore, it had some disadvantageous which could affect the students. Crossword puzzles mainly focused on how the words look and their basic meanings. They did not teach much more about how words are used in a sentence or sentences, how they sounded, or how they worked in literature or mainly

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in grammar. As we all know English or any other languages has grammar within the literature like nouns, verbs, adjectives, etc. Crossword also lacked in the clearance of clues. If the clues were not very clear or if the players of crossword did not know enough words or did not have enough vocabulary knowledge, the activity can become confusing and frustrating. This problem might end up making someone lose their interest instead of staying motivated. Quite the contradictory to the studies the researcher reviewed which showed significant result in the use of crossword, this might have shown that this won't be a main problem of crossword, depends of the usage and the teacher. Crosswords also often relied on the memories of the players rather than understanding how to use them in real situations and it did not help in creating new language or using it in a more complex way. In addition, crosswords are usually done filling the blanks either on paper or on digital, which meant they did not gave any speaking practice nor listening practice. According to Karim and Hasbullah (1986) cited in the study of Imbenay & Katemba (2022) crossword did gave some advantageous, crosswords puzzles could still be confusing for some of the students, which meant we need to make the students familiar with the use of crossword first. Another disadvantageous stated supported the previous statement above, whereas if the clues were not clear, students might find it hard to answer. Crossword also could make the teachers sometimes find it difficult to create their own crossword puzzles (Imbenay & Katemba, 2022).

Procedure of Crossword for Vocabulary Teaching and Learning through Quizizz Website Application

In the treatment after the pre-test and before post-test the procedure of crossword was divided into 5 phase naturally. The first phase was where the researcher engaged the vocabularies with the students in the classroom. The second phase was where the researcher introduced crossword manually so the students understood what a crossword was. Third phase where the researcher practice the crossword with the students manually. The fourth phase was the phase where the researcher introduced Quizizz to the students. And the fifth phase was where the students and the researcher practiced the crossword on Quizizz twice. Among all of the research which has been reviewed in the background and the literature review, some research was done in a pre-experimental study. One of it was the study which was conducted by Muna et al. (2025). In the study of Nanda Nailatul Muna which the title was "Using Crossword Puzzles for the Elevent-grade Students in Teaching Vocabulary at Vocational High School", the researcher used the Crossword puzzle as the medium to teach the vocabulary to encourage students' interest in Vocabulary learning. The same to this research it was conducted to determine the effectiveness of the crossword puzzle, yet on a different school and different class. The procedure of the study supported the procedure of this research as the study conducted by Muna et al. (2025) used one group pre-test and post-test. The result of the study shown the succeed research as the hypothesis showed in the study that the experiment was succeed as the use of the crossword indicated the improvement of students vocabulary.

The second related research to support the procedure of this research was the study of Mausariana et al. (2025) with the title of "The Use of Crossword Puzzle to Improve Students' Vocabulary at 7th Grade Junior High School of Kendari". This Study was almost the same with this research, and it supported the research the researcher conducted as it was conducted on the 7th Grade of Junior High School too. One of the differences was that this study which was conducted by Mausariana, Yuliyannah Sain, Muflihun, and Nabila Shufaira Muammar was the approach, as they used quasi-experimental approach to the sample. As the procedure conducted to the experimental and the control group, it showed a larger area of effect to measure, yet the study had a significant positive impact on increasing students' vocabulary understanding. The data in the study showed the results of the study. The data shown was discussed as the paired sample test in the experimental class with the result $0,000 < 0,05$, and the value of the $T_{\text{Count}} \text{ was } -10,929 < T_{\text{Table}} 2,002$, which meant the H_a was accepted and the H_0 was rejected. Thus, the result confirmed that the use of the crossword puzzle in the learning process had given a significant positive impact to the students' vocabulary.

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This research was aimed to see the effectiveness of the use of crossword on Quizizz web-based media to teach vocabulary to class G of the 7th grade students from Junior High School 06 Pontianak. The novelty of this research was the use of Crossword on Quizizz. Different to other studies which has been conducted, this research provided the crossword mainly on Quizizz. The crossword on Quizizz used the feature fill in the blank with crossword picture inside the Quizizz as the fill in the blank feature had fill in picture feature which was filled by the researcher who also acted as the teacher.



Figure 1

In the procedure within the treatment, the students were provided with a paper of manual crossword to help them for notes while they did the quiz on the Quizizz with crossword filled in the picture as the Quizizz itself did not have feature specialized for crossword. Different to other studies, the crossword and the Quizizz were not conducted separately nor discussed within a separate matters. As other studies reviewed above from the background and from the literature review conducted crossword manually, using wordwall.net, using crossword labs, and the other studies conducted studies on Quizizz with different type of word games, this research used the crossword within the Quizizz as the media. As the students used the Quizizz on their phone with the crossword as the lead, they filled the answers and worked with their friends to solve the answers, the picture of the crossword itself as the picture, helped the students to narrow the answers down on the manual crossword they had in hand for note.



Figure 2

Considering the previous studies the use of crossword and Quizizz which had been applied in a classroom all reach positive results, those studies had supported this research by the results they had gave. Furthermore, as crossword and Quizizz had been done in other countries and showed that they are effective in vocabulary learning. The disadvantageous also discussed in the previous study yet the advantageous had successfully gave the studies positive results. The differences of this research to the previous studies are the time, the place,

and the relation between the crossword and the Quizizz. In this research, especially in the treatment, the students used Quizizz through website in their mobile phone and was assisted by the researcher to do the competitive and fun learning.

METHOD

To achieve the objectives of this research, the researcher has decided to take pre-experimental research to reach the result of the problem statement. The approach of this research was pre-experimental. In this study, a quantitative approach will be employed for the analysis of static data, including learners' pre-test and post-test scores. The researcher employed this score to ascertain whether the concept of "Crossword Game on Quizizz" facilitated learners' acquisition of students' vocabulary. The study employed a pre-experimental research design approach, and utilized a pre-test and post-test format.

The objective of a quantitative research was to gather data in numerical form the following the completion of a study on a defined group of individuals. This data was then used to generalize the findings of the study, thereby an explanation was provided for a given phenomenon. Based on the researcher's understanding of population, the population in this research will be 7th Grade of SMPN 06 Pontianak 2024/2025 Academic Year consisted of 7 class. Each class comprised of 31-33 students. From all of the classes, the students was counted as 222 students. In this study, the sample is selected using a cluster random sampling technique, which is selected from probability sampling type. . In this research project, the experimental class is designated as one of the 7th grade from the population which is class 7th G due to the equal ability and chance from students in grade 7th. Class G 7th consisted of 32 students yet only 31 students presented in all of the procedure of the research.

FINDINGS AND DISCUSSION

The findings were based on the data which was collected by the researcher in the entire research process. The analysis was focused on the comparison between students' vocabulary before the treatment and after the treatment which was the used of Crossword game on Quizizz, an educational web-based media platform. It was aimed to answer the research questions by analyzing the numerical statistical data of the students' pre-test and post-test. The findings were described on how the use of the Crossword game on Quizizz affect the students' vocabulary performances before and after the treatment. The researcher formulated the table of the result with classification as follows

Table 1. The Result with Classification

Classification	Score Range	Pre-test		Post-test	
		Number of the Students	Percentage (%)	Number of the Students	Percentage (%)
Excellent	85-100	24	78%	31	100%
Good	70-86	6	19%	0	0%
Fair	50-69	1	3%	0	0%
Poor	0-49	0	0%	0	0%
Total		31	100%	31	100%

Based on the percentage above, the researcher has counted and the result of the vocabulary test scores on the previous pre-test and the previous post-test. In the pre-test it was shown that there were 24 students (78%) who scored excellent, 6 students (19%) who scored good, 1 student (3%) who scored fair and 0 student (0%) who got poor score range. The pre-test showed that the students needed a slight enhancement in their vocabulary. The result of the pre-test showed that the use of Crossword game on Quizizz gave a slight significant enhancement on the students' vocabulary scores. This was proved further in the result of the post-test. In the post-test it was shown that all of the students consisted of 31 students scored excellent in the post-test after the use of Crossword game on Quizizz web-based media platform.

CONCLUSIONS

After analyzing all of the data, the researcher has come to some conclusion regarding of this research. Overall the result of this research “The Effectiveness Of Using A Crossword Game On Quizizz In Teaching Vocabulary” has comes to these conclusions. The use of crossword on Quizizz web-based game application is effective in teaching the vocabularies towards the students with result the t-value is $0.854 > 0.006$ H_0 is rejected and H_a is accepted. The result is there is a significance differences before and after treatment of the crossword on Quizizz. Furthermore, the effect size of the effectiveness of this research is not at the higher effectiveness or the lowest effectiveness, yet in the moderate effect size with 0.78 and categorized as a moderate effect. Last, the web-based application “Quizizz” has attracted the students and enhanced their motivation. As it turned out that those students are quite competitive against their own classmates.

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