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## RESEARCH ARTICLE

# The Implementation of E-Matching Game for English Teaching to Enrich Elementary School Students Vocabulary

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**Abstract:** The research was conducted to explore the application of the E-Matching Game in elementary school. The study used qualitative and quantitative methods. The results show that teachers face two problems in implementing the game: requiring adequate facilities and technical issues that occur when the teaching and learning process is in progress: teachers' and students' opinions regarding implementing the E-Matching Game. The teachers feel they can create enjoyable learning and get students involved in teaching and learning. The students can remember the vocabulary taught and integrate spelling, pronunciation, and meaning, and the students like it. The learning outcome can be seen from the pre-test and post-test given before and after implementing the E-Matching Game. Teaching English using the E-Matching Game is highly recommended because it is enjoyable, makes the students active, makes it easier to remember vocabulary, integrates spelling, pronunciation and meaning, and students love the game. The E-Matching game has increased elementary school students' English vocabulary.

**Keywords:** e-matching game, vocabulary, English teaching, elementary school students.

## 1. Introduction

Indonesia is one of the most developing countries in the world and is currently trying to develop several aspects that can transform it into a developed country. One of these aspects is education. Education is an important aspect and is the spearhead in improving the quality of human resources so that they can compete in the increasingly advanced and modern competition of national life (Kurniawan, 2011). Another thing is that education is a forum for forming national character as embedded in the new curriculum with character education. With adequate education, a nation will find it easier to develop and continue to decline in global and international development.

Good education is supported by good teachers, students and learning in the teaching and learning process. The method and the teaching media are crucial in teaching and learning (Bakhsh, 2016; Fatimah & Masduqi, 2021; Nugrahani, 2007). Learning media has a vital role in classroom teaching. For teachers, learning media will make it easier for teachers to teach and convey material to students. In contrast, this media will make it easier for students to understand the material prepared by the teacher. As reported by Sadiman (2006), media is anything that can be used to channel messages from the sender to the recipient so that it can stimulate students' thoughts, feelings, attention and interest and attention in such a way that the learning process occurs. Therefore, the presence of learning media in the teaching



and learning process will make students more interested in absorbing the information the teacher provides.

The learning media applied in Indonesia still needs to be improved by teachers. In reality, learning media is still often neglected for various reasons, including limited time to make teaching preparations for teachers as educators, difficulty in finding a suitable model and type of media, lack of funds, which some complain about, and so on (Na'imah, 2022; Slamet, 2015). Only some schools, primarily in the city, have adequate learning media. In this way, the price of the available learning media is difficult for rural schools to afford even though they need it, too. According to Novaliendry's (2013) and Anwar and Efransyah (2018), the learning media used is monotonous in several regions in Indonesia. It is caused by the need for more teacher creativity and innovation in creating learning media. Besides being bland, the available learning media are also not environmentally friendly. The primary material made of plastic is why this media is not ecologically social, and many teachers also need help making it.

The importance of learning media is undoubtedly felt by teachers when teaching their students. Teachers will find it very helpful in delivering material, especially in learning English, one of the most challenging subjects for elementary school students. Interactive learning media is needed to support the learning process because communication between teachers and students can make learning more accessible for students to understand. In creating interactive learning media, teachers have the challenge of developing ideas so that students can well receive learning material. Media must involve elements of enjoyment for students and include students' five senses, which will make students actively participate in learning in class (Ana, 2018; Azizah et al., 2023; Rizki et al., 2013).

In learning English in elementary schools, the material teachers teach emphasizes introducing English vocabulary. However, as previously stated, not all teachers use interactive learning media and prefer conventional learning media. Therefore, learning English vocabulary becomes boring from the student's perspective. Students must be able to memorize the vocabulary that has been taught. Students need fun learning, especially elementary school students. Teaching English to elementary schools is a challenging thing. Several things are characteristic of elementary school students, such as being unable to concentrate for long periods, preferring to play, and getting bored quickly. These characteristics cause teachers to have to be creative in designing learning media to attract their students' attention. Learning while playing is the right learning strategy in this case.

Some experts argue that involving games in English learning will motivate students to learn, arouse students' interest in learning, help English teachers make language learning valuable and practical, and make students learn from their own experiences (Hayati, 2020; Purba et al., 2022; Wright et al., 2006). Scott and Ytreberg (2004) also expressed a similar opinion, namely that elementary school students prefer to play, and good learning for them is when they enjoy learning.

Based on these problems, this research aims to discover teachers' difficulties in implementing the E-Matching Game, the opinions of teachers and students in implementing the E-Matching Game, and student learning outcomes after the E-Matching Game is executed in English learning.

## 2. Literature Review

Games and teaching are closely related because many teachers have used them as a medium for instruction. This is especially true in teaching English, where teachers must be able to use games in class. This game is believed to make students more focused on the material. Whenever games are used, students will feel more enthusiastic about learning. Teaching using games is usually used to make students concentrate more on learning. Wang et al. (2011) argue that students prefer to be involved in game-based teaching, which is very effective in increasing students' motivation and interest in learning English. In addition, the

focus of teaching games in the classroom is to help students learn more effectively and have more fun (Nga, 2023; Rizki et al., 2013; Tuan & Doan, 2010). One game that meets these criteria and can be developed is the matching game. Matching game, as the name suggests, means that players must fit each expected content, such as pictures, words, etc. However, in this research, the matching game was electronic-based, using a computer or laptop.

Dahidi and Sudjianto (2004) argue that vocabulary is all the words relating to a language or a particular field. Generally, vocabulary is taught in elementary schools because the material is easier to digest for that level of student. Enriching the vocabulary is extraordinary, so children who use the vocabulary become more skilled (Fuad et al., 2023; Ruswandi, 2004; Tanasy & Ali, 2019). Children can easily remember one or two words quickly because their brains are still at the stage of solid memory. Nurgiyantoro (2001) believes vocabulary mastery is adding words that children easily understand.

As children grow older, their vocabulary mastery will become more complex if they want to learn to do so. It is supported by their curiosity at this level so that they will continue to like to learn new words that they hear. As children grow and develop, their language will change, not just because of their growth and development, but because they can understand and use increasingly complex and different words (Matsumoto, 2008; Saputra et al., 2021; Yuliansyah & Syafei, 2018). The vocabulary they learn depends on the language or field they study. They generally learn English vocabulary in English lessons held in class, while the rest learn vocabulary from watching television, playing games, listening to songs, or other English-related activities. Therefore, teachers need to maximize English vocabulary learning during class lessons.

Teaching English to elementary school children emphasizes teaching vocabulary, so the material provided is straightforward. However, teaching vocabulary does not only require students to take notes in notebooks after the teacher writes them on the board; students also need to be trained to speak. It is how it should be because teachers teach language, allowing students to talk about the language being taught. Besides that, when teaching English to elementary school students, they still struggle to grasp the material provided. It is expected, especially in countries where English is still a foreign language, such as Indonesia. Apart from that, elementary school children will quickly become bored with lessons in class if the teaching could be more varied, as in the previous example where students only take notes. Therefore, appropriate strategies are needed to teach elementary school children. The technique chosen must make students comfortable and happy to learn. However, in the context of this research, another thing that can be a determinant in teaching elementary school children is choosing the suitable learning media. As Nugrahani (2007) explained, there are two essential elements in the teaching and learning process: the method used and the teaching media. Apart from that, the media must adapt to the characteristics of elementary school students, such as being unable to concentrate for long periods, preferring to play, and getting bored quickly (Alharbi, 2020; Ana, 2018).

In this scientific research, one research result was used as a reference and support. The research is entitled "Teaching English Vocabulary for Young Learners through Electronic Guessing Game", written by (Ana, 2018), which focuses on developing games for elementary school students according to the characteristics of elementary school students. Therefore, this research has a close relationship with this research.

### 3. Research Method and Materials

The data were collected by observation, interviews, and giving tests to fifth-grade students at SD Lab Undiksha Singaraja. The observation was conducted to find data regarding the situation and conditions when the E-Matching Game was implemented in classroom learning. Then, interviews were performed to confirm the data based on previous observations and to collect more information regarding the benefits and obstacles when implementing this E-Matching Game from the teacher's perspective.

The test technique used was divided into two, namely pre-test and post-test. The pre-test was conducted to determine students' vocabulary abilities before implementing the E-Matching Game. In contrast, the post-test was conducted after the E-Matching Game was implemented to determine students' vocabulary abilities afterwards.

The researcher used qualitative and quantitative processing methods to process the research data. This qualitative method used analytical data to solve problem formulations one and two (Miles et al., 2014). The data obtained were then analyzed descriptively and qualitatively. Meanwhile, this quantitative method aims to solve the third problem formulation. This quantitative method used the SPSS (Statistical Product and Service Solutions) version 16 descriptive statistical method to find the mean, median, mode and standard deviation of students' pre-test and post-test scores.

The data were collected using various techniques, including qualitative and quantitative data. Qualitative data were analyzed using an interactive analysis model, as Miles et al. (2014) proposed. There were three analysis stages: data reduction, data display, and conclusions.

During the data reduction process, the data were selected and reduced to obtain the appropriate data according to the required data. Then, the data were classified and displayed in table form according to the research objectives. When the data were classified and displayed, the researcher made conclusions to answer the problem formulation in this research.

## 4. Results and Discussion

### 4.1. Teacher Problems in Implementing E-Matching Game

In teachers' implementation of e-matching game in English learning, several problems arise. These problems include:

#### a. Requires adequate facilities

To carry out the teaching and learning process using the E-Matching Game, you need a computer or laptop and an LCD projector. By using an LCD, students can see the slides more clearly.

The lack of adequate facilities also aligns with research conducted by Pranoto (2012) when implementing e-learning at SMK Negeri 2 Pati. According to him, Pranoto also mentioned that the main obstacle to implementing e-learning at the school was the lack of facilities. He gave an example that many computers or laptops are needed, as well as an adequate number of LCDs for teachers to use every time they teach.

#### b. Technical problems occurred

Because this learning media is electronic-based, several problems will occur during its implementation. Based on observations, the most common problem is that the E-Matching Game stops operating, and the teacher has to reopen it.

This aligns with research conducted by Bakhsh (2016) and Pranoto (2012); apart from inadequate facilities, another obstacle is the teacher's ability to operate computers and use learning media. Not all teachers can handle computers, let alone use e-learning media.

### 4.2. Teachers' and Students' Opinions Regarding the Implementation of E-Matching Game

Based on the results of observations and interviews, there are several opinions from teachers and students regarding the implementation of the E-Matching Game, namely:

#### a. According to the teacher's opinion

Teachers feel capable of creating enjoyable learning. Because teaching using games is fun, it is not surprising that the classroom atmosphere becomes enjoyable (Ana, 2018; Na'imah, 2022; Nga, 2023). It can be seen from the laughter and smiles of the students studying in

class that the teacher feels happy about it. It is supported by Sadiman's (2006) statement in his research, which states that in educational media, games have several advantages as follows: (1) games are something fun and entertaining to do, (2) games allow active participation from students to learning, (3) games can provide direct feedback, (4) games can apply specific concepts or roles to actual situations, (5) games are flexible, (6) games are easy to create and reproduce. The same thing was also conveyed by Jong et al. (2008): computer-based games in education build students' motivational, cognitive and socio-cultural aspects.

Teachers can get students involved in the teaching and learning process. In learning using the E-Matching Game, students are asked to answer the game by matching its content. In this process, students show their activeness in being able to answer. Therefore, this has an impact on all the different characteristics of students. Initially, quiet and less active students suddenly became enthusiastic about answering. This aligns with Lee's (2000) statement, which argues that games can motivate introverted students to interact in the classroom and be more involved than usual in teaching and learning.

b. According to students' opinions

Students can remember the vocabulary taught. E-Matching Game, which combines image and word elements, enables students to remember the vocabulary introduced. This is in line with the opinion of Thornbury (2002), who states that visualization is one way to make the vocabulary taught be stored in students' long-term memory.

Students can integrate spelling, pronunciation, and meaning. Students can understand spelling, pronunciation, and the meaning of vocabulary simultaneously. That's because this game provides the spelling of the word. As explained by Pim (2013) Pim, he believes that integrating ICT (Information, Communication, and Technology), which can produce sound and video in English teaching, will help students practice language, primarily spoken language. Because the E-Matching Game allows students to spell, it will help them learn English orally.

c. The students love it

The results of observations and interviews show that students really like the E-Matching Game. It can be seen that at the end of learning using this game, students always ask for this game to be taught at the next meeting. The same results also came from Letchumanan and Hoon (2012), who found that students preferred learning new vocabulary through computer games. In addition, Lee's (2012) research also found that students responded positively to applying games in English learning.

### 4.3. Student Learning Results After the E-Matching Game is Implemented

In accordance with the third problem formulation, this research aims to find student learning outcomes before and after implementing the E-Matching Game. Therefore, students are given a pre-test before the E-Matching Game is implemented and a post-test after. Ten fifth-grade elementary school students were involved in the research. The pre-test and post-test results show that the student's average score in the pre-test was 5.34, and it increased to 7.38 in the post-test. A summarizes the pre-test and post-test results can be seen in Table 2.

**Table 2.** Results from Pre-Test and Post-Test

Test	Mean	Median	Mode	Standard Deviation	Minimum Score	Maximum Score
Pre-Test	5.30	5.00	5.00	0.94868	4.00	7.00
Post-Test	7.10	7.00	7.00	0.73786	6.00	8.00

In the pre-test line, the mean score (average) of the fifth-grade students at SD Lab Undiksha Singaraja after the pre-test was 5.30. The values' median (middle value) is 5.00,



and the mode (the value that occurs most often) is 5.00. The standard deviation is 0.94868, with a minimum score of 4.00 and a maximum score of 7.00.

In the post-test row, the mean score (average) of the fifth-grade students at SD Lab Undiksha Singaraja after the post-test was 7.00. The median (middle value) of the values is 7.00, and the mode (the value that occurs most often) is 8.00. The standard deviation is 0.73786, with a minimum score of 6.00 and a maximum score of 8.00.

From the explanation above, the student score obtained from the pre-test with a mean of 5.30 has increased after implementing the E-Matching Game, as evidenced by the mean student score during the post-test, namely 7.00. What can also be concluded is that the smaller the standard deviation between the post-test and the pre-test, the better the results obtained by students (Sahara, 2013). The results of this research align with Ana's (2018) research, which applied the Electronic Guessing Game (EGG) in teaching English vocabulary to elementary school students. The study results show that word games can improve students' vocabulary mastery. Azizah et al. (2023) and Azar (2012) also conducted the same research and found that games enhanced students' vocabulary skills.

The results of this research agree with research conducted by Azar (2012), who found that games were very effective in helping students increase their vocabulary. Research by Muhanna (2012) also confirmed that games can improve students' vocabulary mastery.

## 5. Conclusion

English teachers who teach elementary school students must be able to develop media that suits students' needs. One of these media is called E-Matching Game. Based on the results of the discussion of this scientific work, the E-Matching Game has proven effective in improving students' English skills, especially in increasing students' vocabulary. Teaching English using E-Matching Games is highly recommended because it is fun, makes students active, makes it easier to remember vocabulary, and integrates spelling, pronunciation, and meaning. Students like this game. Based on the results of this research, this game is proven to be able to increase elementary school students' English vocabulary.

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