The Effectiveness of Using Board Race Games to Enhance Students’ Vocabulary Mastery

Muhamad Ilham Aufa\textsuperscript{1}, Mukminatus Zuhriyah\textsuperscript{2}
Hasyim Asy’ari University, Jombang\textsuperscript{1,2}
Ilkom46@gmail\textsuperscript{1}, zoehrea@gmail\textsuperscript{2}

Abstract
A preliminary study conducted at MTS Salafiyah Syafi’iyah Tebuireng provided an in-depth understanding of the challenges faced by students in class VIII-A. One of the challenges identified was the students’ difficulty in enriching and expanding their vocabulary using board race game. This research aims to examine whether the board race game can help improve students’ vocabulary comprehension at class VIII A of MTs. salafiyah syafi’iyah tebuireng. Using a pre-experimental design, the study was carried out over two treatment sessions. After the treatment, there was a significant improvement in students’ vocabulary comprehension based on data analysis with a two-tailed significance value of 0.005 which is lower than the significance threshold of 0.05. These results indicate that the use of the Board Race Game is effective in teaching vocabulary to eighth-grade students in MTs Salafiyah Syafi’iyah Tebuireng during the academic year 2024-2025.

Keywords: Vocabulary, Board Race Games, Preeksperiment Design

INTRODUCTION
In the realm of English language learning, there exist four primary skills including speaking, writing, listening, and reading. A critical aspect demanding focus in honing these skills is vocabulary, which plays a crucial role as a fundamental component of language mastery (Bai, 2018). Vocabulary encompasses a set of words essential for effective communication. It includes words utilized in speaking known as expressive vocabulary, and words recognized during listening referred to as receptive vocabulary. Bai (2018) suggests that an individual's level of vocabulary knowledge largely depends on the individual themselves, including their motivation, desires, and needs for those words.

A preliminary study has been conducted at MTS. Salafiyah Syafi’iyah Tebuireng on November 25, 2022. Based on interviews and observations with English language teachers, there are several issues related to vocabulary achievement faced by students. Several eighth-grade students face challenges in enhancing and expanding their vocabulary, frequently encountering issues with retaining the words taught by their teachers.
One way to learn vocabulary is through games. Games have the ability to enhance students' moods, so everything originating from these enjoyable activities can be imprinted in their minds while the learning process is underway. Roshid (2018) explains that a game involves rules, objectives, and elements of fun. There are two types of language games suggested including linguistic and communicative. An instance of a language game aimed at improving students' vocabulary skills is the "Board Race Game." The researcher discovered that many have studies utilizing the medium of board race games. Syakur (2020) in his research concluded that using board games for teaching speaking skills to young learners offers several benefits. These games provide interactive activities that capture students' interest and enhance their communication abilities.

There are many previous studies that demonstrate that utilizing board race games is highly effective in enhancing students' vocabulary. Chotimah & Astiyandha (2022) explained on research findings demonstrate that using the board race game as an educational tool can boost the vocabulary proficiency of grade XI Accounting students at SMK Hutama. Not only that, Rahmadani & Pammu (2021) also explained at an advanced level, teaching vocabulary through racing games is a successful method to enhance students' vocabulary memorization in the English Education Department at INEVAM. The disparity between students' pre-test and post-test results was proven to be significant. Furthermore, the t-test value exceeded the t-table value. It appears that following the therapy with the Board Race Game, there was an improvement in vocabulary memorization.

From the explanations provided, it can be inferred that the Board Race Game offers significant benefits and enjoyment that making it a valuable teaching tool for teachers across different aspects of the English language curriculum. However, it is important to recognize the research gap in the findings of the studies mentioned. This research gap lies in the fact that, up to this point, these studies seem to have been conducted with a focus on specific aspects of teaching English using Board Race Games. Therefore, there is room for more comprehensive research that attempts to integrate and explore another aspect of teaching English more holistically using this game.

Based on this study, it can be inferred that the Board Race Game serves as a fun activity for reviewing vocabulary that encompassing words recently taught as well as those covered in previous lessons. As a result, the researcher is inclined to explore the potential of the Board Race Game method for improving students' vocabulary skills.
RESEARCH METHOD

This study utilizes a pre-experimental research design to investigate how a board race game influences students' mastery of vocabulary. The study involves a single group or class as its subjects. It employs a pre-test before administering the treatment and a post-test after completing the treatment to assess its effects. The researcher will choose class VIII-A as the sample due to several considerations, one of which will be that the class will be chosen by the teacher because the vocabulary knowledge of the students in class VIII-A will still be low. The procedure in this study can be explained as follows:

1. Conducting the Preliminary Studies
   Hayati (2021) explained the preliminary study design should comprehensively cover the research, including hypotheses detailing expected findings and emphasizing the importance of the research topic. This initial study aims to refine the focus of the main study by evaluating feasibility, clarifying research procedures, and addressing any uncertainties.

2. Identifying the Research Problem
   Identifying the research problem involves identifying a prominent social issue, phenomenon, or concept that warrants investigation because of its importance for understanding. Researchers determine the research problem by drawing upon their observations, knowledge, experience, and expertise within the field.

3. Creating the Research Instrument
   In this study, the researcher employed a vocabulary test as their research instrument to assess students' proficiency in vocabulary, demonstrating its role as a tool for data collection. It is essential for researchers to choose suitable instruments to improve the accuracy and reliability of data collection.

4. Validating Research Instruments
   Validation entails gathering and analyzing data to evaluate the precision of the instrument. Various tests and statistical methods are used to gauge the validity of quantitative instruments typically involving an iterative process of testing and refinement.

5. Collecting the Data
Data collection involves the gathering of necessary information or field data essential for researchers' studies. The findings derived from this process are then utilized to test hypotheses formulated by researchers.

6. Analyzing Data

The process of data analysis includes collecting, modeling, and evaluating data to acquire insights that aid decision-making. Following the identification of findings, researchers usually proceed to test hypotheses as the next step.

7. Reporting Research Results

A research report is a well-organized document that systematically presents the results of a research study. Its primary aim is to explore the hypotheses developed by the researcher.

Following data collection, the subsequent phase involves data analysis. The collected data for this study were quantitatively analyzed. Specifically, SPSS software version 29 was utilized to analyze the pre-test and post-test scores. This analysis aims to assess the variance in students' vocabulary mastery scores across the two groups. The vocabulary test data underwent analysis following a standardized procedure:

1. To calculate the score of the students’ test

   A student score = \frac{\text{The student's correct answers}}{\text{The total number of items}} \times 100

2. To calculate the mean score of the student

   \[ t = \frac{\bar{x} - \mu}{S/\sqrt{n}} \]

   Note:
   - \( t \) = t count
   - \( \bar{x} \) = mean
   - \( \mu \) = specific average
   - \( S \) = sample standard deviation
   - \( n \) = number of sample

3. Normality Test

   \[ \bar{D} = \frac{\sum D}{N} \]

   Note:
   - \( \bar{D} \) = The mean of differences score
   - \( \sum \) = The sum of scores
   - \( N \) = Total number of students
4. T-test (a paired sample test)

\[
t = \frac{\bar{D}}{\sqrt{\frac{\sum D^2 - (\sum D)^2}{N(N-1)}}}
\]

Note:
- \( t \) = Test of significance
- \( D \) = Differences between two scores compare
- \( \bar{D} \) = The mean of differences score
- \( \sum D \) = The sum of scores
- \( \sum D^2 \) = The square of D scores
- \( N \) = Total number of students

FINDINGS AND DISCUSSION

Findings

Students Vocabulary Mastery Before Being Taught Using Board Race Game

The researcher conducted a pretest for the students of class VIII-A prior to implementing the board race game. During this pretest, the students were required to answer 20 questions aimed at evaluating their vocabulary skills. After data collection, the pretest scores were analyzed using descriptive statistics. This analysis employs descriptive statistics to summarize the distribution of students' pretest scores, highlighting any observable patterns and trends. Table 1 illustrates the outcomes of this analysis.

<table>
<thead>
<tr>
<th>Statistics</th>
<th>Pre Test</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>N Valid</td>
<td>38</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N Missing</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>69.6053</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>67.5000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mode</td>
<td>60.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: SPSS (2024)

The analysis results provide an interesting overview of the vocabulary proficiency in Class VIII-A. Despite the average and median scores not being particularly high and the mode score being 60, this reflects that most students possess a reasonably good vocabulary proficiency. This implies a necessity for enhanced efforts in vocabulary learning.

Students Vocabulary Mastery After Being Taught Using Board Race Game

Once the statistical overview from the pretest was obtained, the researcher implemented
the board race game as a treatment to help students improve their vocabulary skills. It is expected that after the treatment is provided, students' vocabulary skills will experience significant improvement.

After undergoing two treatment sessions, the students were administered a post-test. This post-test comprised 20 questions similar to those in the pretest. Upon completion of the post-test, the researcher collected scores from each student. The post-test aims to evaluate the impact of using the board race game on students’ vocabulary skills. The students’ performance in the post-test was recorded and subsequently displayed in Table 2.

<table>
<thead>
<tr>
<th>Table 2 Descriptive Statistic of Post-Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statistics</td>
</tr>
<tr>
<td>Post Test</td>
</tr>
<tr>
<td>N  Valid</td>
</tr>
<tr>
<td>38  38</td>
</tr>
<tr>
<td>Missing</td>
</tr>
<tr>
<td>0</td>
</tr>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>88.9474</td>
</tr>
<tr>
<td>Median</td>
</tr>
<tr>
<td>87.5000</td>
</tr>
<tr>
<td>Mode</td>
</tr>
<tr>
<td>85.00</td>
</tr>
</tbody>
</table>

Source: SPSS (2024)

From the analyzed data, it is evident that the most frequently obtained score by students is 85. This suggests that the students have achieved a solid level of vocabulary proficiency. Therefore, it can be inferred that most students have reached a satisfactory level of mastery in this area which is a notable achievement. The rise in the mean score from the pretest to the posttest indicates an enhancement in vocabulary mastery among VIII-A students following the implementation of the board race game. This implies that the instructional approach using the board race game effectively supports students in improving their vocabulary skills.

The Significant Difference Between the Students’ Vocabulary Mastery

Prior to assessing the effectiveness of the pretest and posttest results, it is imperative to confirm that the data meet the assumption of normality. Thus, the researcher initially performed a One-Sample Kolmogorov-Smirnov Test on both sets of results. The outcome of this test will indicate whether the pretest and posttest data adhere to a normal distribution. If the data demonstrate normal distribution, the researcher can proceed with the paired sample t-test to evaluate the significance of the differences between the pretest and posttest scores. Detailed results of the normality test are provided in Table 3.

<table>
<thead>
<tr>
<th>Table 3 Normality Test of Pre-Test and Post-Test Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>One-Sample Kolmogorov-Smirnov Test</td>
</tr>
<tr>
<td>Unstandardized Residual N</td>
</tr>
<tr>
<td>38</td>
</tr>
</tbody>
</table>

35
Normal Parameters

<table>
<thead>
<tr>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.0789</td>
<td>5.14457</td>
</tr>
</tbody>
</table>

Most Extreme Differences

<table>
<thead>
<tr>
<th>Absolute</th>
<th>Positive</th>
<th>Negative</th>
</tr>
</thead>
<tbody>
<tr>
<td>.135</td>
<td>.135</td>
<td>-.135</td>
</tr>
</tbody>
</table>

Test Statistic

<table>
<thead>
<tr>
<th>Asymp. Sig. (2-tailed)</th>
<th>.135</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Test distribution is Normal.</td>
<td></td>
</tr>
<tr>
<td>b. Calculated from data.</td>
<td></td>
</tr>
<tr>
<td>c. Lilliefors Significance Correction.</td>
<td></td>
</tr>
</tbody>
</table>

Source: SPSS (2024)

The Kolmogorov-Smirnov test assesses whether data follow a normal distribution, typically considering a significance value (2-tailed) greater than 0.05 as indicative of normality. In Table 4.10, the normality test yields a significance value of 0.076 which exceeds 0.05. Hence, it is concluded that the residual data exhibits a normal distribution. Following confirmation of normality for both pretest and posttest data using the Kolmogorov-Smirnov test, the subsequent step involves analyzing these scores with a paired-sample t-test, with detailed findings provided in Table 4.

Table 4 Paired Sample Statistics Test

<table>
<thead>
<tr>
<th>Paired Differences</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>95% Confidence Interval of the Difference</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1 Pre Test - Post Test</td>
<td>-2.21053</td>
<td>4.55689</td>
<td>.73923</td>
<td>-3.70834 - .71271</td>
<td>-2.990</td>
<td>37</td>
<td>.005</td>
</tr>
</tbody>
</table>

Source: SPSS (2024)

In interpreting the t-value, two methods can be used:

1. Based on the t-table: When comparing the calculated t-value to the tabulated t-values specifically for 37 degrees of freedom, the researcher observe critical values of 1.687 at a 5% significance level and 2.431 at a 1% significance level. The calculated t-value of -2.990 exceeds the absolute value of these critical values leading to rejection of the null hypothesis.

2. Based on Probability: In this case, the significance level of 0.005 is lower than the standard threshold of 0.05. Thus, the researcher reject the null hypothesis.

At a significance level of 0.005, there is strong evidence of a meaningful disparity in the
pre-test and post-test outcomes when employing the board race game. Consequently, it can be inferred that utilizing the board race game effectively improves the vocabulary skills of eighth-grade students at MTs. Salafiyah Syafii’iyah Tebuireng.

**Discussion**

**Students Vocabulary Mastery Before Being Taught Using Board Race Game**

From the pre-test results, it is concluded that the students of class VIII-A of MTs. Salafiyah Syafii’iyah Tebuireng have quite significant difficulties in understanding vocabulary, thus their ability in this regard can be categorized as fairly good. However, the analysis of the mean, median, and mode shows score reaching 60.

The data indicates that the majority of students in class VIII-A are experiencing difficulties in expanding their vocabulary, primarily due to frequently forgetting the words taught by the teacher. This is also confirmed by the researcher's initial observations. To aid students in understanding vocabulary, the common approach taken by teachers is to provide word lists and engage in discussions about their meanings. Occasionally, teachers also jot down challenging words on the whiteboard and ask students to memorize them, which tends to result in students having less practice in using these words. Furthermore, some students find this learning method boring. One possible cause is the infrequent use of media in vocabulary teaching by teachers. In this context, educational methods that are static and lack interactivity might not attract certain students leading to a decrease in their incentive to participate actively during learning. It’s in line with Rohmatillah (2014) cited in Isnaini & Aminatun (2021) noting that learning vocabulary presents several challenges for students, including discrepancies between how words are written and spoken, the extensive volume of words to be learned, constraints on where reliable information can be found, and the intricate nature of understanding word meanings. Rianti et al (2023) also added that students struggle to understand long sentences and texts due to difficulties with vocabulary and grammar mastery. Additionally, Reskiawan et al (2020) adds other factors such as inadequate practice, errors in writing or spelling, distinctions in word meanings, and difficulties in pronunciation attributed to variations in sound between English and Indonesian. Isnavira & Sujannah (2023) also highlights internal factors such as lack of motivation, fear of making mistakes, limited vocabulary and grammar, and incorrect pronunciation.
Students Vocabulary Mastery After Being Taught Using Board Race Game

According to Octaviani et al (2019), that this game provides an enjoyable opportunity for students to enhance their English skills through engaging in friendly competition. By using the board race game, students can revise newly taught vocabulary by the teacher or that taught the previous week. Additionally, this game can also be used at the beginning of class to increase students' activity and test their understanding of the material taught. Tampubolon et al (2023) support this view by stating that the board race game technique has proven effective in English language learning.

In this context, students experience learning in diverse settings, which stimulates their enthusiasm for studying English. Introducing this game increases students' curiosity and involvement in the learning process, making the study of English more attractive to them. Research findings indicate that many students achieved a mode score of 85, reflecting a good level of vocabulary mastery. Moreover, the rise in average scores from the initial assessment to the final assessment suggests that the students of Class VIII-A improved their mastery of vocabulary following the implementation of the board race game as an instructional tool. The board race game has proven effective in helping students enhance their vocabulary skills, as evidenced by the substantial increase in average scores between the pretest and posttest. In summary, the implementation of board competition in the experimental class demonstrates the effectiveness of this method in improving students' ability to retain vocabulary. The increase in scores from before to after the exam reinforces this finding, demonstrating that the game is an effective teaching method.

The Significant Difference Between the Students’ Vocabulary Mastery

Additionally, the researcher observed that employing the board race game effectively improves the vocabulary proficiency of Class VIII-A students at MTs. Salafiyah Syafi’iyah Tebuireng. In the context of this "board race" competition, students have the opportunity to review vocabulary including new terms or words from previous materials using a whiteboard inside the classroom. The implementation process involves the teacher providing pictures to the students who then write down the appropriate vocabulary to describe the pictures. Statistical analysis indicates a notable enhancement in scores from the pretest to the posttest, as evidenced by a calculated t-value (2.990) surpassing the critical t-value (1.687). As a result, the alternative
hypothesis (Ha) is supported, thus the null hypothesis (Ho) cannot be accepted.

The board race game is a successful technique for teaching vocabulary because it leverages the engaging nature of board games, which are typically played on a board and are enjoyable for students. According to Ulfa & Inayati (2022), that game is enjoyable activities that involve participants following certain rules, and they serve as educational methods to enhance thinking skills. Risa et al (2023) support this perspective asserts that the board race game technique has demonstrated its effectiveness in facilitating English language learning. Within the realm of English language education, board race games offer a fun opportunity for students to practice English, which in turn heightens their enthusiasm for learning and deepens their involvement in the educational experience.

The board race game profoundly influences students' vocabulary acquisition and contributes to a lively classroom environment. Syaputra et al (2023) in their research demonstrates that the enhancement in students' vocabulary proficiency following the implementation of the board race method is evident. This is accompanied by increased participation and enthusiasm among students during the learning process. Playing the board race game improves students' ability to memorize vocabulary, fostering a sense of comfort and active involvement in both teaching and learning. Utilizing innovative tools like the board race game allows teachers to effectively tackle challenges related to student motivation and vocabulary acquisition. This game not only stimulates students' interest in learning English but also helps them enhance their vocabulary skills in an enjoyable manner. As an innovative solution in vocabulary teaching, the board race game proves its effectiveness in assisting students in learning English more effectively.

In addition to its role in improving students' vocabulary, the Board Race Game technique also produces notable outcomes in speaking instruction. Afidah et al (2021) in their research, it was determined that the board race game is effective in improving students' speaking accuracy, especially in vocabulary and pronunciation. The success of this technique in improving speaking abilities is crucial considering that accuracy in communication forms an important foundation in building more proficient speaking skills. During observations and interactions between the researcher and the students, it was evident that this teaching method could spark students' interest in the material being taught. This indicates that it is not only effective in enhancing their speaking abilities but also capable of creating an engaging and challenging learning environment for students. Students' interest in the learning material is a crucial factor.
in ensuring that the teaching-learning process proceeds smoothly and impacts their overall skill enhancement.

Furthermore, Mifta (2020) examined the benefits of board games in enhancing students' vocabulary. These games not only provide a fun and entertaining learning experience but also facilitate active learning of new vocabulary through enjoyable repetition. Competition in these games not only fosters healthy rivalry among students but also strengthens social relationships within the classroom. Additionally, active participation of students in these games has the potential to enhance their understanding and retention of vocabulary. However, these games also have several potential drawbacks. For instance, the competitive nature and teamwork involved in these games can sometimes lead to disruptions due to noise. Moreover, not all students may be equally interested or involved in the games, which can reduce the effectiveness of learning for some students. Lastly, unclear understanding of the game rules before starting can cause confusion and affect the expected outcomes in their vocabulary improvement.

In this game, students not only compete to achieve specific goals but also engage in a learning process that involves the application of their knowledge in real-world contexts. This approach enables students to gain a more profound grasp of the content while improving their abilities in critical thinking and analysis. Therefore, incorporating the board race game, which involves competitive learning on the board, can be seen as a valuable strategy in classroom teaching and learning, particularly for enhancing students' vocabulary skills.

CONCLUSION AND SUGGESTION

Conclusion

Based on the findings from the data analysis, several conclusions were derived as follows:

1. Before implementing the Board Race game, the researchers found that although the mean and median scores did not reach high levels, and the most frequently occurring mode value was 60. This suggests that a majority of students possess a reasonably good grasp of vocabulary. However, it also highlights the necessity for continued enhancement in vocabulary instruction methods.

2. After implementing the teaching method using the Board Race game, students' proficiency in vocabulary showed substantial enhancement. Researchers noted that the mode value obtained by the students reached 85, indicating that the majority of students
have achieved a good level in their vocabulary mastery. From these results, it can be concluded that this improvement is a positive achievement that confirms the effectiveness of the teaching media used.

3. The difference in vocabulary proficiency before and after implementing the Board Race Game into the teaching approach is statistically significant. Analysis of the data shows a notable contrast between the pre-test and post-test outcomes, supported by a significance level of 0.005. This underscores the effectiveness of the Board Race Game in enhancing students' mastery of vocabulary. Consequently, the null hypothesis which suggests no difference is rejected based on these findings.

Based on this analysis, it can be inferred that the Board Race Game serves as an effective method for teaching vocabulary to Class VIII-A at MTs. Salafiyah Syafi’iyah Tebuireng for the academic year 2023-2024.

Suggestion

Based on the results of this study, the authors propose the following suggestions:

1. For English teachers

   English teachers can confidently use innovative teaching methods without worrying about causing overwhelming challenges for their students. Instead, the use of new techniques can create a more relaxed atmosphere, motivate, and activate students in the EFL learning process, particularly in vocabulary learning in the classroom. In this context, incorporating the board race game into vocabulary teaching is strongly advised due to its potential to greatly enhance students' proficiency in vocabulary.

2. For Students

   Students need to take English language learning seriously especially in classes that focus on vocabulary, so that their ability to master vocabulary can be enhanced. One recommended strategy to achieve this is by implementing the board race game. Through this game, students can be more intensively involved in their vocabulary learning which in turn will help improve their overall vocabulary mastery. Thus, board race not only serves to develop vocabulary skills but also to enhance all aspects of students' English language skills comprehensively.

3. For Other Researchers
In this study, it was discovered that employing the board race game can effectively enhance students' vocabulary acquisition at MTs Salafiyah Syafi’iyah Tebuireng. This indicates that the method has significant potential in the educational context. Additionally, other researchers are encouraged to adopt a similar approach both at different student levels and by varying the research methods used.

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