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**| RESEARCH ARTICLE**

## **Enhancing students' vocabularies through synonym and antonym quizzes at Senior High School in Tana Toraja**

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**| ABSTRACT**

Learning vocabulary in senior high school is crucial for understanding synonyms and antonyms. The students need to understand the meaning of the words. This study aims to determine the effectiveness of synonym and antonym quizzes in improving first-year students' vocabulary at SMAN 2 Tana Toraja. This study used a pre-experimental method with a group pre-test and post-test. The study population comprised first-year students at SMAN 2 Tana Toraja in the academic year 2025/2026. Class IPS was selected as a sample, consisting of 25 students. The instrument for this study was a vocabulary test administered as a pre- and post-test. Findings reveal that using synonym and antonym quizzes can improve the vocabulary of the first-year students of SMAN 2 Tana Toraja. The score of the pre-test showed 'very poor', while the score of the post-test is generally 'good'. The data were analysed using degrees of freedom ( $df = 24$ ). The t-test result showed a significant difference from the t-table value; hence, the hypothesis is accepted. Findings reveal that using synonym and antonym quizzes enhances the students' vocabulary. This is because the Quiz is an activity with rules, a goal, and an element of fun, which students find interesting. Students can learn while they are playing. It can brighten up the class and bring more variety to the language.

**| KEYWORDS**

Vocabulary, synonyms, antonyms, quizzes, and interesting activities

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**1. Introduction**

Vocabulary mastery is a fundamental component of language proficiency, particularly in English as a Foreign Language (EFL) contexts at the senior high school level (Webb, S., & Nation, I. S. P., 2021; Teng, F., 2022). Students' ability to comprehend texts, express ideas clearly, and participate in academic communication is largely determined by the breadth and depth of their vocabulary knowledge. However, many senior high school students still experience difficulties in using a variety of lexical items appropriately (Jannah et al., 2023; Fatin, A. N., et al., 2026). Their writing and speaking tend to rely on limited word choices, resulting in repetitive expressions and reduced communicative effectiveness. Therefore, innovative and engaging strategies are needed to enhance students' vocabulary development in meaningful ways.

One promising strategy is using synonym and antonym quizzes as interactive vocabulary-learning activities. Synonym and antonym exercises encourage students to recognize semantic relationships between words, expand their lexical networks, and develop a deeper understanding of word meanings in context (Webb, S., & Nation, 2021; Schmitt, D., 2020). Through

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systematic exposure to lexical variations, students can improve not only their vocabulary size but also their lexical flexibility. Quizzes, when designed as formative assessments, can increase student motivation, provide immediate feedback, and foster a competitive yet collaborative learning atmosphere in the classroom (Li, X., Zhao, Y., & Ahmed, S., 2023; Hidayati, N. et al., 2025).

In the context of senior high schools, where students are expected to meet curriculum standards that emphasize communicative competence and academic literacy, integrating synonym and antonym quizzes into classroom practice may be an effective pedagogical intervention (Teng, F., 2020; Webb, S., & Nation, 2021). Such activities align with vocabulary learning theories that highlight repetition, meaningful association, and contextual reinforcement as key factors in lexical acquisition.

This study aims to investigate the effectiveness of enhancing students' vocabularies through synonym and antonym quizzes at the senior high school level. Specifically, the research seeks to examine the extent to which these quizzes improve students' vocabulary mastery and to explore students' responses toward their implementation in English language classrooms. The research question is: How can synonym and antonym quizzes significantly enhance students' vocabulary mastery at SMAN 2 Tana Toraja? Recent studies on vocabulary instruction emphasize interactive and formative assessment strategies to improve lexical mastery in EFL contexts. However, limited research specifically explores the implementation of synonym and antonym quizzes at the senior high school level in Tana Toraja. This study addresses this gap by contextualizing vocabulary enhancement within local educational settings. This study offers novelty by integrating culturally contextualized synonym and antonym quizzes to enhance vocabulary mastery among senior high school students in Tana Toraja.

## **2. Review of Literature**

### **2.1 Principles of Teaching and Learning Vocabulary**

According to Lee (2023) and Teng (2024), vocabulary is acquired incidentally through indirect exposure to words and the following factors, namely, (1) Aims, the aim of teaching vocabulary is to enable the teacher to formulate the materials which will be taught to the students. (2) Quantity, the teacher has to decide the number of vocabulary items to be covered. The learners will get confused or discouraged if they get many new words. Therefore, the teacher should select new words that learners can easily understand. (3), in teaching vocabulary, the teacher has to choose the words really needed by the students in communication. (4) Frequent exposure and repetition mean that the teacher should give much practice on repetition, and therefore, the students need to use words in writing or speaking. Lastly, (5) meaningful presentation: in teaching vocabulary, the teacher should present target words in a way that their meanings are unambiguous.

### **2.2. Synonym and Antonym Quizzes**

Before teaching vocabulary, a teacher should know what technique will be used. A teacher should know how to create a good atmosphere in the classroom to make the class less boring. A good technique should, first, make the learner focus on the form and meaning, second, give the learner a chance to repeat what needs improvement, and lastly, make the learner active in the learning process. In addition, before teaching the synonyms and antonyms quiz, the teacher must know how to apply the quiz method. According to Pamela (2010), some ways to use the quiz method, namely (1) Create Questions, provide each student with a flash card about the current unit of study. One side of the card has a question or vocabulary term, and the other side provides the answer or definition. (2) Pair Up, use the stand up/hands up/pair up method for students to find a Partner. For example, Partner A holds up the flash card to show Partner B the question. Then Partner B answers. Partner A praises if correct or coaches if incorrect. They switch roles, and Partner B asks Partner A the next question. (3) Hands Up, after thanking each other and switching cards, Partners A and B raise their hands to find a new partner and repeat the process for an allotted amount of time.

According to Charles in Perdana (2012), there are several purposes of using quizzes, namely (1) Physical: to release the nervous tension and to promote mental alertness by breaking the routine. (2) Enjoyment: to create a climate of fun and interest that will help the students look forward to their English lesson. The quiz learned in class is also something they can do outside of class to have fun. (3) Language learning: to serve as an adjunct to the technique of teaching the grammar and sound system of a new language. A quiz can be an experience that. (4) Gives meaning and form. The purpose of using quizzes is to help students understand the meanings of words and underline them using synonyms and antonyms.

### 2.3 What Synonyms and Antonyms Quizzes Can Be Used For

A quiz is an activity with rules, a goal, and an element of fun, which makes it interesting to students. They can learn while they are playing. It can be helpful to a foreign language teacher in a number of ways. It can brighten up the class and add variety to the language lesson, especially when teaching vocabulary to deepen discourse on topics. A quiz can guide students in communicating effectively with this peer. It can also give a kind of satisfaction in the way of thinking.

According to Shark et al. (2023), the following are the advantages of the quiz strategy, for the learners, they are: A quiz can be used to change the pace of a lesson and maintain motivation; A quiz can be used to punctuate long formal teaching units and review students' energy before returning to more formal learning; A quiz can give hidden practice of specific language points without making students aware; A quiz encourages students' participation and can remove inhibitions of those who feel intimidated by a formal classroom situation; Quiz can change the role of the teacher from a formal instructor to a manager or organizer of activities that the student enjoys participating in; A quiz can increase student communication and reduce the domination of the classroom by the teacher; A quiz can act as a testing mechanism, in the sense that it will expose weaknesses and the need for remedial work.

Meanwhile, for the teacher, a quiz can help with classroom management, enabling us to keep the pace of the lessons or to get all learners involved; it can help us recognize if the new language is causing problems in terms of form or pronunciation; and it can benefit the quiz strategy for both learners and teachers. For learners, quizzes maintain motivation, refresh energy, provide practice with hidden language, encourage participation, reduce classroom anxiety, increase communication, and identify learning weaknesses. For teachers, quizzes support classroom management, control lesson pace, engage all students, and help identify language form and pronunciation difficulties.

### 3. Methodology

The research design used a pre-experimental, one-group, pre-test and post-test design. It used one group to apply the treatment. A comparison between pre-test and post-test scores determines the success of the treatment.

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

Where :

O<sub>1</sub> : Pretest

X: Treatment

O<sub>2</sub> : Posttest

(Gay, 2006:26)

The population of this study comprised first-year students at SMAN 2 Tana Toraja in the academic year 2025/2026. It consisted of 100 students, divided into 4 classes, with approximately 25 students per class. Meanwhile, a sample was selected using a three-class cluster random sampling technique. By this technique, class IPS 1 has been taken as the sample. The instrument for this research was a vocabulary test, administered as a pre-test and post-test. The students of class IPS at SMAN 2 Tana Toraja were tested using multiple-choice and matching questions. The pre-test was given to assess students' prior knowledge of English vocabulary. The post-test was administered to assess students' vocabulary mastery after treatment. Pre-test and post-test are within the same question. The data were collected in three stages: administering a pre-test to measure initial ability, conducting the treatment using an instructional intervention, and administering a post-test to evaluate students' improvement after the treatment period. The data was collected through the test that was analyzed by using quantitative analysis as follows:

- a. Classifying the score of the students' answer into the following measurement scale:

No	Score	Classification
1	91-100	Excellent
2	76-90	Good

3	61-75	Average
4	51-60	Poor
5	< 50	Very poor

(Depdiknas, 2017)

- b. Calculating the mean score of the students' answers by using the formula

$$\bar{X} = \frac{\sum X}{N}$$

Where:

$\bar{X}$  = Mean score

$\sum X$  = Total row score

$N$  = Number of students

(Gay, 2006)

- c. Calculating the frequency of the students' scores by using the formula:

$$p = \frac{n}{N} \times 100\%$$

Where:

$P$  = frequency

$N$  = total number of students

$n$  = Frequency

(Gay,2006)

- d. Finding out the significant difference between pretest and posttest by calculating the value of the t-test. The formula is the following formula will be employed:

$$D = \frac{\sum D}{N}$$

Where:

$D$  = Deviation

$\sum D$  = Standard Deviation

$N$  = Number of Students

(Gay, 2005:42)

$$SD = \sqrt{\frac{\sum X^2 - \left(\frac{\sum X}{N}\right)^2}{N - 1}}$$

Where:

$T$  = Test of significance

$D$  = The Mean score

$\sum D$  = The sum of the total score of the difference

$\sum D_2$  = The square of the sum of differences

$N$  = The total number of students

(Gay, 2005)

$$t = \frac{D}{\sqrt{\frac{\sum D^2 \left(\frac{\sum D^2}{N}\right)}{N(N-1)}}$$

Where:

$T$  = Test of significance

$D$  = The Mean score

$\sum D$  = The sum of the total score of the difference

$\sum D_2$  = The square of the sum of differences

$N$  = The total number of students

(Creswell, 2012:29)

## 4. Findings and Discussion

### 4.1 Findings

The findings of the research are presented through the frequency and percentage rates of students' scores, the mean and standard deviation of the pre-test and post-test, the T-test value, and hypothesis testing. These findings are described as follows:

#### 4.1.1 The rate percentage of the pre-test and post-test

Table 4.1 The rate percentage of the pre-test

NO	Classification	Score	Pre-test	
			F	%
1	Excellent	91-100	0	-
2	Good	76-90	0	-
3	Average	61-75	0	-
4	Poor	51-60	9	36,0%
5	Very poor	<50	16	64,0%
Total			25	100%

In Table 4.1, the pre-test results show that none of the students received an excellent, good, or average classification. In the pre-test, 9 students (36,0%) received poor classification, and 16 students (64,0%) received very poor classification.

Table 4.2 The rate percentage of the post-test

No	Classification	Score	Pre-test	
			F	%
1	Excellent	91-100	8	32,0%
2	Good	76-90	12	48,0%
3	Average	61-75	5	20,0%
4	Poor	51-60	0	-
5	Very poor	<50	0	-
Total			25	100%

Table 4.2 shows the post-test results, which showed that 8 students (32,0%) received excellent classification, 12 students (48,0%) received good classification, and 5 students (20,0%) received average classification. While no students got a poor or very poor classification.

#### 4.1.2 The mean scores and standard deviation of the pre-test and post-test

To know whether there is no significant difference between pre-test and post-test, the following table is used.

Table 4.3 The mean score and standard deviation of pre-test and post-test

Test	Mean score	Standard deviation	Median
Pre-test	45,80	9,08	45,00
Post-test	84,68	6,50	85,00

From table 4.3, the mean score of the students in the pre-test was 45,80, and the mean score of the post-test was 84,68. The standard deviation of the pre-test was 9,08, and that of the post-test was 6,50. The median of the pre-test was 45,00 and for the test was 85,00. Based on Depdiknas' grade classification (2017), the students' pre-test mean score was at a very poor level, and the students' post-test mean score increased to a good level.

#### 4.1.3 T-test value

The test statistic (T-test value) is used to determine whether there is a significant difference between the pre-test and post-test.

Table 4. 4 The T-test of the students' vocabulary by using synonym and antonym quizzes is presented as follows:

Variable	T-Test Value	T-table
$X_2 - X_1$	7,441	2,06

#### **4.1.4 Hypothesis testing**

To find out the degree of freedom (df), the Writer used the following formula:

$$df = N - 1$$

$$df = 25 - 1$$

$$df = 24$$

The degree of freedom (df) = 24, the critical value of the table (t-table) is 2,06, then the critical value of the test (t-test) = 7,441 (so t-test was bigger than t-table = 2,06 ( $7,441 > 2,06$ ). It means there is a significant difference between students' pre-test and post-test scores when using synonym and antonym quizzes to improve their vocabulary. It can also be said that the hypothesis is accepted.

#### **4.2 Discussion**

This session discusses the description of data collected through the writing test, which shows that synonym and antonym quizzes can improve the students' vocabulary. Synonym and antonym quizzes can enhance class activity, and students showed enjoyment in joining the class and enthusiasm. This aligns with Schewe (2019), who states that providing students with live quizzes during class is a popular way to do this, used by teachers around the world from elementary school to university.

This quiz method indirectly encourages students to study independently outside the classroom. In a sense, when students take quizzes during the lesson, it is almost certain that some will learn material that has already been covered in class. In addition, this quiz method can be used as a component of student assessment. Not only that, but teachers can also take advantage of the scores from each of these quizzes to help students whose final grades are unsatisfactory. This quiz method can be used to open a question-and-answer session as discussion material in class.

This research is supported by Azwar (2013) and Oemar (2014), who also found that the quiz strategy was more effective in improving students' vocabulary. Quizzes have a positive effect on students' vocabulary and motivate them to learn. In the process of learning, the students will improve their vocabulary and social relationships with their friends. Students can share their ideas with others and with other groups as they learn together.

Data show that students' scores after presenting materials using synonym and antonym quizzes as a teaching method for vocabulary are better than before the treatments were given. As a result, students could improve their vocabulary. Moreover, students learned how to interact with one another and to appreciate each other's ideas.

There are several challenges for the students in their vocabulary. Data show that students had limited vocabulary and difficulty answering the questions. Students also had difficulty expressing their ideas and building confidence. However, the implementation of synonyms and antonyms in their learning vocabulary significantly improves.

Giving a function quiz to students to determine whether they have thoroughly mastered the subject matter is a form of reinforcement. Knowing that the test results are high, students will be more motivated to study harder, and with improvement efforts and feedback obtained after the test, they will know their weaknesses. As a diagnostic tool, students can identify which parts of the teaching materials are perceived as difficult based on the quiz results. As for the quiz function for teachers, it includes knowing which materials being taught have been accepted by students and which parts of the lesson materials have not been mastered.

In the learning experiment class, with quizzes, it is more engaging for students because it helps them retain the material they have just learned. Students are actively involved in learning, so they are neither bored nor enthusiastic, which helps them understand the lesson material bit by bit. In the control class, learning is conducted using a conventional direct lecture method. Thus, it tends to make students bored quickly and less motivated to take part in learning activities because the learning activities

are centered on the teacher and place students as listeners and note-takers only; thus, it is difficult for the teacher to know with certainty the extent to which students understand the material that has been presented.

## 5 Conclusion

The use of synonym and antonym quizzes is effective in improving first-year students' vocabulary at SMAN 2 Tana Toraja during the academic year 2025/2026. The study examines the concept of teaching vocabulary to enhance the students' vocabulary. It can be concluded that there is a significant difference in the students' vocabulary mastery before and after treatment. The students' vocabulary was significantly increased before and after learning synonyms and antonyms. There is the result of the students' vocabulary between the pre-test and the post-test. It indicates that synonym and antonym quizzes are effective in improving the students' vocabulary. It is recommended that English teachers integrate structured synonym and antonym quizzes into routine classroom activities to foster active engagement and autonomous learning. Future research should explore digital-based quiz applications and long-term impacts on productive skills, such as writing and speaking, to further optimize vocabulary development strategies in EFL contexts.

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