

Advancing English Vocabulary Proficiency through Meaningful Contextual Teaching in Learning English in a Private Senior High School

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ABSTRACT

A strong vocabulary is a cornerstone of English language proficiency, it is enabling learners to express ideas clearly and engage in meaningful conversations. However, many students struggle to acquire a strong vocabulary due to traditional teaching methods that often focus on rote memorization rather than contextual understanding. The study was to determine the average score of students' English vocabulary and then find the difference between pretest and posttest scores. This study used a quantitative approach and an experimental design using statistical tools and a dependent sample t-test to analyze the data. The sample of this study was 31 students from a private senior high school in Airmadidi. The study's instruments were 20 questions for a vocabulary test. The findings of this study were: (a) the average score of students English vocabulary before treatment was 48.55 (b) the average score of students English vocabulary after treatment was 91.13 (c) there is a difference in average scores between students' pretest and posttest on English vocabulary proficiency with a meaningful learning through CTL with the sig. 2-tailed (.000) < a (.05). The effect size obtained in this study was 0.96, which means that the interpretation of the effect size shows a huge difference. The researcher recommends that teachers and students learn meaningfully and contextually rather than rote learning and use the REACT stages.

Keywords: English Vocabulary Proficiency, Meaningful learning, contextual teaching learning, rote learning

INTRODUCTION

There is a growing desire for innovative and functional approaches to improve language skills, especially vocabulary acquisition. Mastering vocabulary is the most challenging task for every learner when acquiring another language (Saengpakdejitt, 2014). The importance of vocabulary cannot be overstated, as it serves as the basis for understanding and expressing language. Along with pronunciation and grammar, vocabulary is one of the most critical aspects of learning a foreign language.

Vocabulary learning is a severe issue among adolescents and children; learners have trouble understanding recently acquired words. Additionally, certain ones claimed they had trouble using the vocabulary they had learned in class (Torlaki, 2019). According to the study by Torlaki (2019), most students in the school of foreign language at Çukurova University in

Turkey had trouble learning unfamiliar words and mainly relied on the list. To address this, the teacher conducted an innovative approach like vocabulary tests, silent movies with summaries, peer-checked pronunciation tasks, and pre/post writing evaluations combined with vocabulary checks based on the Common European Framework of Reference for Languages (CEFR) level. These approaches' ability was evaluated. Learning English vocabulary is not as easy as it looks.

In a study conducted in Thailand implementing EFL learners, Huang et al. (2019) discovered that mastering vocabulary was one of the most significant challenges in communication and reading skills. The researcher revealed this through interviews with English teachers at Padoongrasda School in Thailand. The English proficiency levels of 7th-grade students range from 1,050 to 2,250. However, test results revealed that most 7th-grade students at Padoongrasda School learned fewer than 1,050 English words. The findings of this research are that students at Padoongrasdra School tend to use rote learning rather than meaningful learning for vocabulary.

Furthermore, students in Indonesia need assistance with vocabulary acquisition. According to Balqis (2018), English vocabulary acquisition is the most challenging aspect for most Indonesian students. Students need help to memorize the words that make them bored. As a result, they must pay more attention to what the teacher says. Balqis's (2018) experience at SMAN 1 Baktiya recommends that teachers encourage students to acquire a new language and continue to find exciting ways to improve their vocabulary. The teacher should plan the teaching process to effectively develop the student's English vocabulary.

According to research studies, Indonesia's education system emphasizes rote rather than meaningful learning (Ermaya, 2021). The education system in Indonesia embraces Rote Learning, that is, Memorization Learning in the Lower Order Thinking Skills (LOTS), so it cannot solve complex problems. In contrast, Indonesian Rote Learners are substantially passive, do not understand the theory in depth, never ask questions, and accept the answers without thinking critically to re-examine whether the answers received are theoretically correct. Consequently, rote learners tend to think they understand because they already know the "truth."

Many learners need more vocabulary to speak, read, or write in English because of a need for more vocabulary or a misunderstanding of the right words to use. This also makes them unable to listen well to what is conveyed or spoken by a native speaker or even the teacher delivering the information or lessons in class. One of the learning models that can be used is applying CTL. The need for this CTL learning technique comes from the fact that most students need help to connect what they learn in class with how it is applied in real life. This strategy seeks to ensure that learning is more than memorization; it also requires understanding (Karimah et al., 2022). That is why teachers need to apply various activities in classes that help them learn meaningfully and know how to put them into contextual use.

The researchers are interested in how these two variables might be described and connected in the context of one of the senior high schools in North Sulawesi, Indonesia. This study is meant to determine how these variables may be examined in a specific setting, specifically in private of Senior High School in Airmadidi, Manado. The school was intentionally chosen as the research location for this study, which will mainly involve students in grade eleven. This study aims to determine the student's English vocabulary proficiency and to compare before-and-after treatment with a meaningful learning approach through CTL, specifically to answer the

following questions: (1) What is the average score of students' English vocabulary before using meaningful learning through CTL?; (2) What is the average score of students' English vocabulary after using meaningful learning through CTL? And (3) Is there any difference between students' pretest and posttest score on English vocabulary proficiency with a meaningful learning through CTL?

LITERATURE REVIEW

Meaningful learning involves acquiring knowledge to improve students' understanding based on their experiences, emotions, and connections with other students (Rumalolas et al, 2021). One of the teaching models that is appropriate to be used is meaningful learning through contextual teaching and learning in the teaching and learning process. The theory is based on David Ausubel (1963), who proposed that meaningful learning will lead to better long-term retention than rote learning (Brown, 2000). Students are expected to deepen their knowledge through experience and practice by making relevant learning connections between new experiences and prior knowledge. Ausubel (1963) proposed the idea of meaningful learning, claiming that it occurs when learning is linked to the student's previous behavior, as reflected in the student's cognitive structure, and what they learn is meaningful. It can be considered meaningful only when learning adapts to this structure (Huang et al., 2019). According to Agra et al. (2019), meaningful learning theory is a practical approach in university teaching contexts because it involves the non-arbitrary and non-literal connection of new knowledge to current knowledge. Contextual teaching and learning will lead to meaningful learning.

Hanani (2020) investigates meaningful learning for millennials, which helps students develop critical thinking, creativity, and innovation abilities. This can be achieved through various other ways, such as cooperative learning, collaborative learning, and contextual teaching and learning. Students have skills, knowledge, and attitudes that may be used to solve challenges and acquire meaningful learning. Achamd (2013) suggests applying the acronym REACT to identify contextual educational needs. This acronym stands for Relating, Experiencing, Applying, Cooperating, and Transferring.

One of the approaches for teaching and learning that can be used is meaningful learning through contextual teaching and learning, or CTL. This approach is consistent with Ausubel's theory that meaningful learning will be implemented well through contextual teaching and learning.

When contextual teaching and learning apply, meaningful learning takes place. In addition, CTL is a learning strategy in which students participate actively in the learning process relating to real-life situations (Merawan et al., 2021). Students may acquire a more profound knowledge, which helps them develop emotions, intelligence, and higher-level thinking skills (Haerazi & Irawan, 2019). According to Lan (2021), the essential factors for successful foreign language learning are 1) active participation of the learner, 2) real-life situations, and 3) meaningful interactions with others. In other words, successful language learning only happens when learners actively engage in meaningful relationships with others in real-life situations.

Contextual teaching and learning are characterized as a method that aims to help students understand the meaning of instructional material based on their personal, social, and cultural context so that students can understand and have skills to form and produce their understanding of the material provided actively (Haerazi & Irawan, 2019). Contextual teaching and learning involve students actively measuring knowledge based on their experience, making the learning process more relevant (Lestari et al., 2021). According to Jubhari (2022), developing meaning in a teaching-learning process is critical to contextual teaching and learning. Concepts are applied through discovery, reinforcement, and connections. Students will learn and remember more if their learning experience is meaningful. Thus, contextual teaching and learning will be the applicable learning techniques for learning English vocabulary. Practices of Meaningful Learning

Relating. This refers to the idea that learning must be contextualized to apply to realworld social contexts (Achmad, 2013). The term relating defines how this learning method relates learned topics to the context of real-life experiences or prior knowledge (Sukmana & Wahyudin, 2011). The process of relating learning material helps the learners' daily activities to make learning more applicable and accurate. When learning English vocabulary, activities that can be used include a Riddle game using simple words of everyday English that relate to the student's experiences. Activities related to this stage highlight the act of relating, and learners can understand the meaning of vocabulary, (Wahyuni, 2021).

Experiencing. This emphasizes the importance of language learning in interactive communication through exploration, discovery, and creativity (Achmad, 2013). Experiencing

learning provides learners with a learning opportunity. While doing experiments, this provides learners with knowledge directly through experience rather than just imagining. This idea of experiencing is an activity that allows students to have a learning experience in the learning process that drives students to identify meaningful concepts independently and allows them to express themselves (Suraji et al., 2020). The experiencing stage can help learners develop basic skills based on the ideas presented in the related stage because, at this stage, learners explore through experiments to discover newly acquired ideas with their creativity (Arifin et al., 2014). An activity that facilitates experiencing is role-playing. Students can be assigned different roles and conversation scenarios to use the target vocabulary naturally.

Applying. This implies that learning should be applied practically in social life (Achamd, 2013). Applying is learning by putting what you have learned into practice through realistic and meaningful learning exercises (Kaselin et al., 2013). At this stage, learners apply their learned concepts to solve real-world challenges (Karima & Supardi, 2016). Demonstrating sentences or vocabulary with the target words of vocabulary is an activity that motivates practice. Students can be given a list of words and asked to demonstrate meaningful sentences or write a short story that effectively utilizes those words. **Cooperating.** Cooperative learning demands learners to work together, share, respond, and interact with other learners (Ozbay & Kayaoglu, 2015). They cooperate and assist in maintaining collaboration, teamwork, and involvement. In this stage, cooperating enables students to be independent learners because they do not rely entirely on the teacher to solve problems in learning; instead, they learn how to solve problems independently by sharing knowledge and information from different sources (Wahyuni, 2021). At this stage, learners can express their thoughts and get suggestions from each other, allowing them to figure out their perceptions. Cooperating focuses on collaborative learning, where students collaborate to improve their vocabulary. Cooperation helps most learners obtain the content and connect with the real-world concept behind contextual learning (Utami et al., 2016). Cooperative activities enhance connection and conversations, allowing students to learn from others. A vocabulary relay game is a cooperative exercise for learning new words. Students can be divided into groups and take turns describing by using the words from the vocabulary effectively. This activity promotes collaboration and active vocabulary participation. **Transferring.** The term transferring helps learners utilize what they have

learned in unfamiliar conditions (Yildiz & Baltaci, 2016). Transferring refers to applying information in new contexts and situations (Achmad, 2013). Transferring refers to learning, applying, and developing prior knowledge. Deep learning is achieved during the learning process through thinking and transferring knowledge. Making real-life scenarios or having students use the words creatively is an activity that promotes transfer (Karima et al., 2016). This concept in education also refers to combining new knowledge with prior knowledge and transfers in daily life (Meydan, 2018).

By utilizing the REACT concept, students' English vocabulary proficiency will be more creative and engaging since these concepts will educate students to improve their thinking styles by increasing their vocabularies. In this case, one of the learning theories that can be applied in learning is the theory of David Ausubel, who created a theory known as meaningful learning. Meaningful learning in Nurhasanah et al. (2022) is a learning process in which students can relate new information to previously learned information. The relationship between ideas, facts, or conditions suitable within students' cognitive structures can result in meaningful learning. According to Ausubel and Novak (1983) in Vallori (2014), it is essential to understand how students learn, most will learn effectively if teachers educate students in a connected and related approach.

METHODS

This study used a quantitative approach and an experimental design. According to Sugiyono (2012), the experimental study method may be considered to investigate the effects of specific treatments on others under controlled settings. From this perspective, an experimental study is always conducted by applying treatment to respondents and observing the difference before and after the treatment. A one-group pretest and posttest design are used in this study. In this design, there is a pretest before treatment and a posttest after treatment.

Figure of research design

O₁

X

O₂

Pretest

Treatment

Posttest

The procedures of the experiment process. In the first meeting, the researcher explained the purpose of the study to the students and then the researcher starts the class with a pretest for 20 minutes without any treatment regarding the meaningful vocabulary they had to learn. After the pretest, the researchers immediately started vocabulary lessons based on the vocabulary in their books. This first meeting used the stages ‘R’ and ‘E’ from REACT strategy, namely relating and experiencing. The activity that are used are relay game of riddle with simple English vocabularies and conversation and the first meetings take 70 minutes. Second meeting, the researcher continues the treatment using the stages of ‘A’ and ‘C’, namely applying and cooperating. The activity that are used are charades or demonstrating with a group, so the students will work together as a team and the second meetings take 70 minutes. Last meeting, the researcher used the last stages of REACT which is the stage ‘T’, namely Transferring. The activity of the last meeting is reviewing what they had learn from the previous meeting, then answer some exercise from the students book so that they could recall their prior knowledge of English vocabulary to new knowledge and use it in everyday English. After conducting the last stage of treatment, the researcher gave the posttest for 20 minutes to analyze what they have learned from the three meetings. Respondents in this research are students from a private senior high school in Airmadidi, Minahasa Utara with 13 females and 18 males, which leads to 31 students in grade XI, especially English proficiency students’ level 3 who were enrolled in the second semester of the 2023/2024 academic year. This study employed the data procedure collection as shown in the figure below.

Figure of Procedure of Data Collection

Pretest	Treatment	Posttest
20 – item vocabulary test completed by the students	3 meetings of treatment	20 – item vocabulary test completed by the students

To interpret the data on students' English vocabularies and the difference between the pretest and posttest, the researchers used a dependent sample t-test in a Statistical tool to measure the results. Then, the researchers tried to determine the effect size impacting these tests by following these steps:

Correct answers for tests:

$$\text{Score} = \frac{\text{Correct Answer}}{\text{Total Number}} \times 100$$

Classify the students score using the interpretation as below

Score	Classification
90 – 100	Excellent
75 – 89	Good
50– 74	Fair
0 – 49	Very poor

Determining the average score using this formula or Ms. Excel:

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

Where:

\bar{x} = average

$\sum x$ = total score

N = total students

Measuring the effect size using Statistical tool output by this formula:

$$r = \sqrt{\frac{t^2}{t^2 + df}}$$

Where:

t^2 : t value

df : degrees of freedom

Interpret the magnitude of effect size using the following guidelines:

- a. 0.2 (small effect)
- b. 0.5 (medium effect)
- c. 0.8 (large effect)

RESULTS

The first research question of this study was to find out the average score of students' English vocabulary before (Pretest) using meaningful learning through CTL. These were measured using the SPSS program to determine the student's English vocabulary scores before treatment. The results of the tests can be seen in the following table and graphic.

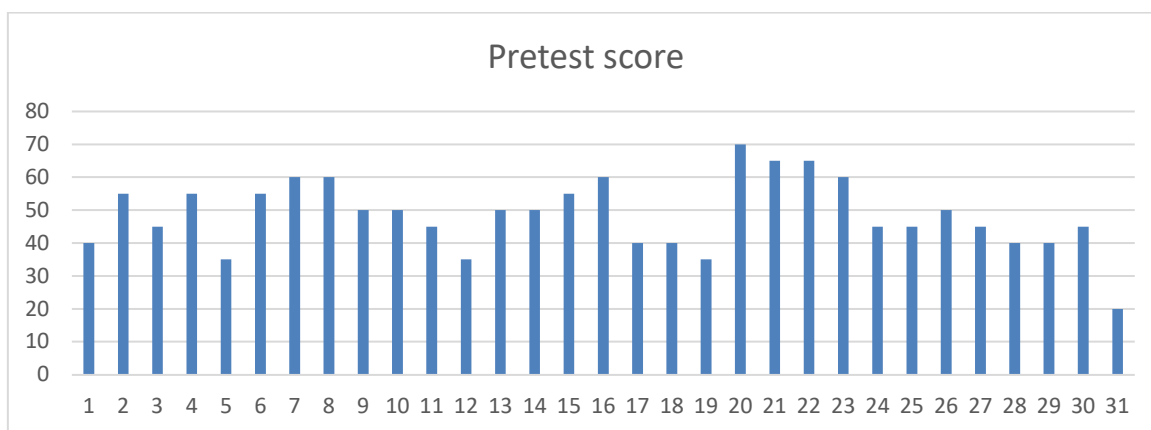
Pretest Statistics

		Statistics	
Pretest			
N	Valid	31	
	Missing	0	
Mean		48.55	
Std. Deviation		10.82	
Minimum		20	
Maximum		70	
Sum		1505	

The data and graphics above show that the respondent of this research consists of 31 students. On the result of the Pretest of English vocabulary, the maximum score is 70, while the minimum score is 20; from the pretest, the average score is 48.55, its deviation standard is 10,82, and the total sum of the scores is 1505. This is related to the study of Pasicolan (2021)

on Enhancing Students’ English Language Vocabulary Skills, and the findings showed that teachers need to improve using new learning methods in learning English vocabulary.

Pretest Score Graphic

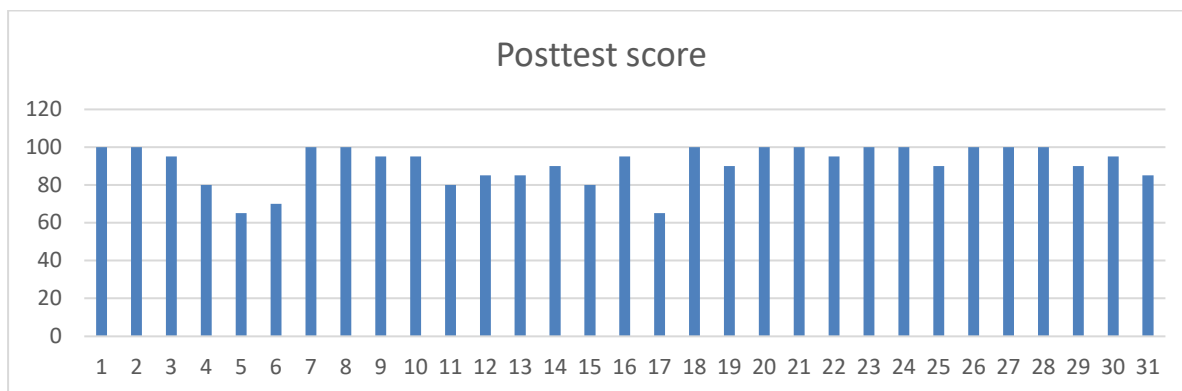


The second research question of this study was to determine the level of students' English vocabulary after (Posttest) using meaningful learning through CTL. The students' scores in English vocabulary after treatment were measured using the SPSS program. The results of the tests can be seen in the following table and graphics.

Statistics		
Posttest		
N	Valid	31
	Missing	0
Mean		91.13
Std. Deviation		10.54
Minimum		65
Maximum		100
Sum		2825

The data and graphics above show that the respondent of this research consists of 31 students. The result of the Posttest of English vocabulary obtained a maximum score of 100, with a minimum score of 65; from the posttest, the average score is 91,13, its deviation standard is 10,54, and the total sum of the scores is 2825. This study is similar to the finding conducted by

Achmad (2013), where learner learns using meaningful learning, which would increase their understanding of learning English vocabulary.



Comparing the pretest and posttest data showed improved English vocabulary mastery using meaningful learning through CTL. The average score is increasingly reaching 42,58 points. This improvement score is significant and proves the effectiveness of the model learning of REACT and teaching English vocabulary through meaningful learning. The detail improvement can be observed in the table

Table 1. Point Improvements Data

The Result of Score Calculation	Pre-Test	Post-Test	Point of Improvements
The Minimum score	20	65	45
The Maximum score	70	100	30
Average (Mean)	48.55	91.13	42.58

The last research question was to determine if a difference exists between students' pretest and posttest on English vocabulary proficiency with a meaningful learning through CTL. These were measured through the application of a Statistical tool program using a Dependent sample t-test. The result showed a similar study to Mubarok et al. (2022), which found that

implementing a meaningful learning model through contextual teaching and learning can improve student learning outcomes in English subjects. Therefore, the answer to research question number three shows a difference in average scores between students’ pretest and posttest on English vocabulary proficiency with a meaningful learning through CTL.

Lastly, the researcher determines the effect size between the results of the two mean scores. The step is to compute the value of *t* and *df* from the SPSS output of the paired sample test based on the table below and then utilize the formula given.

Paired Sample Test

Paired Sample Test			
	t	df	Sig. (2-tailed)
Pretest			
Posttest	-19.159	30	.000

$$r = \sqrt{\frac{t^2}{t^2 + df}}$$

$$r = \sqrt{\frac{-19.159^2}{-19.159^2 + 30}}$$

$$r = \sqrt{\frac{367,067281}{367,067281 + 30}}$$

$$r = \sqrt{\frac{367,067281}{397,067281}}$$

$$r = \sqrt{0,92445}$$

$$r = 0,96$$

The final result shows 0.96, which means a number close to 1. This means that the interpretation of the effect size shows a huge difference. Therefore, the answer to research question number three shows that the sig. 2-tailed (.000) is lower than α (.05), then H0 is

rejected. This means there is a difference in average scores between students' pretest and posttest on English vocabulary proficiency with a meaningful learning through CTL.

DISCUSSION

This quantitative study aimed to answer three research questions. The first research question is to find students' average English vocabulary scores before treatment. The average score for the pretest was 48.55, with a total number of 31 students. The minimum score for the pretest is 20, while the maximum score is 70. Next, the second research question is to find students' average English vocabulary scores after treatment. The average score of the posttest is 91.13, with 31 students. The minimum score for the pretest is 65, while the maximum score is 100. The last research question is to see if there is any difference between student pretest and posttest on English vocabulary using meaningful learning through CTL. The researcher found that the sig. 2-tailed (.000) is lower than α (.05), then H_0 is rejected. This means there is a difference in the average score between the pretest and the posttest. The researcher also found that the effect size of these results shows a huge difference.

CONCLUSION

The study showed that Meaningful Contextual Teaching and Learning (CTL) is an effective technique for teaching English vocabulary. Proofing the average student score for English vocabulary increased significantly from the pretest (48.55) to the posttest (91.13). The results of this study have benefits for education teachers. The study showed that implementing relevant contextual teaching techniques can significantly improve students' vocabulary retention and acquisition. The effect size analysis confirms the strength of the intervention's impact on students' vocabulary proficiency by showing a significant difference between the pretest and posttest scores. This study provides the foundation for further research into other variables that could affect whether practical contextual teaching approaches apply to students learning the English language. Additional research could examine particular contextual characteristics or teaching approaches to improve vocabulary instruction outcomes.

Based on the findings of the study, the researcher provides some recommendations. Meaningful learning would benefit teachers and students in learning any subject; in learning English vocabulary, researchers recommend using the contextual method, which uses the dominant communicative method and focuses on student-centered learning. Conversely, the REACT stage (*Relating, Experiencing, Applying, Cooperating, and Transferring*) would apply to students learning. First, students need to learn English vocabulary meaningfully rather than rote learning to avoid short-term memory so that the knowledge they input will apply to contextual use. Next, teachers can use several methods or strategies to learn English vocabulary so that the students will learn meaningfully and contextually. Last, the researcher encourages another researcher to conduct similar research in different locations and at times.

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