The Effectiveness of STAD Cooperative Learning Model in English Vocabulary Mastery at Balindo Paradiso Training Center

Ni Putu Mega Purnami[1], I Nyoman Suparwa[2], Ni Ketut Widhiarcani Matradewi[3]

[1,2,3]*(Master of Linguistic, Udayana University, Indonesia)*

ABSTRACT*: This research aims to explore the effectiveness of Student Teams-Achievement Division (STAD) cooperative learning model in mastering English Hospitality Industry Vocabulary among students at Balindo Paradiso Training Center that conducted with 28 students from the Butler 2 Class. It applies a qualitative research approach to explicate a comprehensive understanding of how the STAD model impacts student's ability to acquire the vocabularies. The finding data were collected through classroom observation, questionnaire, and written test. It analyzed by a rubric score. The result shows that a significant improvement in students' proficiency. The test score shows a notable rise which the percentage of students that meeting the minimum passing grade of ≥85 increased from 25% to 60%. The grade categories of the students are in good level as well the questionnaire response further support the findings.*

KEYWORDS -*English Vocabulary, Cooperative Learning, Student Teams-Achievement Division (STAD)*

I.   INTRODUCTION

Vocabulary mastery is a fundamental component in the field of learning and teaching. According to Webster (1992:732) mastery refers to a skill or knowledge that makes one master of a subject comment. Cameron (2001) stated that vocabulary as one of the knowledge areas which play a great role in acquiring a language. This statement is supported by Hornby (1995) who defined vocabulary is a total number of words in a language with their meaning. Therefore, vocabulary mastery in learning context refers to the individual skill to understand and implement skills or knowledges deeply and effectively in various contexts.

English vocabulary plays a crucial role in hospitality industry where effective communication is essential. Developing a strong vocabulary is a great importance for students at Balindo Paradiso Training Center to meet professional and succeed in their careers. Learning vocabulary in a new language has its own set of challenges, as it requires the learner to memorize words and also understand the meaning, usage, and the context. However, to overcome this challenge require efforts that is not only to help the students excel in learning but also the institution itself. It becomes more challenging in D2 Butler Program at this institution where the students have diverse educational backgrounds and varying levels of English vocabulary proficiency. It is due to not all students come from Vocational High School (SMK) specializing in tourism or directly related to hospitality, many come from Senior High School (SMA), which may not all schools provide sufficient exposure to English hospitality vocabulary. It impacts to the students who lack of specific purposes-related English, they may struggle harder to keep up while those with stronger background remain less unchallenged, it creates a learning imbalance in the classroom itself.

As an institution that has responsibility for producing high quality and professional graduates, it is a challenge in achieving consistent learning outcomes. Therefore, implementing the appropriate learning model is essential to solve this issue effectively. Currently, the institution uses a conventional teaching method, where the

instructor plays the most active role in a classroom. It affects to the vocabulary acquired by the students that is limited to what is provided by the teacher. In that setting, students tend to passively get opportunities for active engagement or interaction, leaving little room for exploration, or even more practice. This lack of active participation is able to hinder their ability to apply those vocabulary in real-situation context and communication skill. Hence, the traditional as the previous approach is consider less effective in addressing the diverse learning needs of students. Regarding to their background, they require deeper and interactive method that encourages participation, collaboration, and peer-to-peer learning. To bridge this gap, it is essential to implement a more dynamic and the student-cantered approach is able to promote the critical thinking of individual and teamwork.

Intended to overcome the diversity in vocabulary proficiency by implementing student-centered setting, cooperative learning is the appropriate approach to enhance the learning process. Slavin (1995) introduced the Student Teams-Achivement Division (STAD) learning model that is an approach designed to a collaboration of the students. It emphasizes small and heterogeneous teams in which students work together to achieve academic goals. It encourages peer interaction by sharing the knowledge, discuss ideas, and support each other in mastering a lesson. This collaborative environment provides students' encouragement to share knowledge, ideas, and support each other in mastering learning content. It is beneficial to practice using new words, clarify misunderstanding, improve their understanding through teamwork and discussion. At the end, this model creates a more dynamic and active classroom experience by fostering peer learning and shared responsibility to address their diverse learning needs.

The STAD model aligns with modern educational strategies that prioritize engagement and interaction that beneficial for vocational education that equip them with interpersonal and teamwork skills that have a great value in the workplace. The steps of applying the STAD model are (1) Form Teams, (2) Present Material, (3) Group Work, (4) Individual Assessment, and (5) Team Score, and (6) Awards. Thus, this approach could ensure that each students have equal opportunities to develop and master the vocabulary effectively.

Based on the issue underlaying this matter, this study aims to examine the effectiveness of the STAD cooperative learning model in mastering English vocabulary among students at Balindo Paradiso Training Center. It offers valuable insights into the application of cooperative learning strategies in vocational education setting. The findings are expected to highlight the benefits of STAD in creating an engaging and effective learning that prepares students of the practical hospitality environment.

II.   METHOD AND RESEARCH THEORY

2.1 METHOD

This study used a qualitative approach, the subjects of this study were 28 students of Butler 2 Class at Balindo Paradiso Training Center. The main instrument of this study is the researcher herself. The researcher who collected, analyzed and presented the data. The data were collected by three technique which are 1) observation to monitor the learning process and interactions, 2) the questionnaires (Table 2.1) contain indicators to collect students feedback on the teaching method, and 3) written test (pre-test and post-test) to measure vocabulary improvement. The data findings wereanalyzed by using a scoring rubric (Table 2.2) which contain some assessment aspects from the vocabulary that the students have mastered, hereafter the N-Gain Test (Hake, 1999) is used to calculate the progress after the treatment is applied, and the effectiveness categories can be seen in the table below (Table 2.3). Lastly, the category of students' abilities is determined based on their scores (Table 2.4). The result is presented descriptively to provide a clear overview of the STAD model's effectiveness in enhancing students' English vocabulary mastery.

Table 2.1

Values of Each Statement

Categories	Values
Strongly Agree	5
Agree	4

Doubtful	3
Disagree	2
Strongly Disagree	1

Table 2.2
Rubric Scoring

Assessment Aspect	Values
Excellent	5
Good	4
Fair	3
Poor	2
Very Poor	1

After comparing the test result by the formula below, then the effectiveness of the STAD cooperative learning model is determined according to the formula by Hake (1999)

$$\text{N-Gain} = \frac{\text{Post-Test Score} - \text{Pre-Test Score}}{\text{Ideal Score} - \text{Pre-Test Score}}$$

Table 2.3
The Effectiveness of N-Gain Score

Percentage (%)	Interpretation
< 40	Ineffective
40 – 55	Less Effective
56 – 75	Fairly Effective
> 75	Effective

Table 2.4
Students' Abilities Category

Score Range	Ability Category	Grade
80 – 100	Excellent	A
70 – 79	Good	B
60 – 69	Fair	C
50 – 59	Poor	D
>50	Very Poor	E

2.2 THEORETICAL FRAMEWORK

This study applies two theories, the first theory is Constructivism Theory which highlight the student-centered learning that states knowledge is constructed by students through their own experience, and the second theory is English Vocabulary Theory in Cognitive Development which explains students' comprehension based on their cognitive developmental stages.

2.2.1 Constructivism Theory

Constructivism Theory is a concept in educational psychology where the learners construct their own understanding and knowledge through their experience in an active and dynamic process. It means the students will be more active and participate in learning process. This theory is deeply rooted by the expert Jean Piaget who provides insight into how individual learn and develop.Jean Piaget (1972) states that knowledge is not

simply transmitted from teacher to student, but actively constructed in learner's mind. He emphasizes cognitive development proposes that learners construct knowledge through the processes of assimilation modifying existing schemas to adapt to new information. He outlines four key concept to explain the process of adaptation in cognitive development, there are: (1) Schemata, the framework that organize and interpret information, (2) Assimilation, the process of getting new information into existing schemata, (3) Accommodation, modifying existing schemata to adapt new information, and (4) Equilibration, maintaining the cognitive stability by balancing the assimilation and accommodation.

Related to English vocabulary learning, a student builds schemata to categorize words and get new vocabulary through assimilation when it fits existing knowledge, when the student finds more complex words, they have to adjust their schemata through accommodation. Thereafter, the student balance new and existing knowledge to understand new vocabulary by equilibration process.

2.2.2 English Vocabulary Theory in Cognitive Development

This theory focuses on how students acquire, process, and store vocabulary as part of their cognitive growth. The theory was raised by Piaget and Vygotsky, they emphasizing how students gain their vocabulary through interaction, understanding, and experience.According to Jean Piaget (1972), cognitive development is a process that human experience through four stages, those are: (1) Sensorimotor Stages (Birth to 2 years old), the children understand things through sensory experiences and motor action, (2) Preoperational Stage (2 to 7 years old), the children use symbols and words to represent the object, (3) Concrete Operational Stage (7 to 11 years old), children begin to think logically about the concrete events and objects, (4) Formal Operational Stage (12 years old and older), the children are able to develop an abstract thinking, logical reasoning, and problem solving. On the other hand, Vygotsky (1978) emphasizes the importance of social interaction in the individuals' cognitive development. He conveys that learning occurs through interactions with their surroundings which are peers, adults, and other individuals in their environment. It affects to their knowledge and skills which can shape their cognitive structures.

Based on the explanation of Piaget's cognitive stages, vocational students are at the formal operational stages. At this stage, students are able to think abstractly and solve complex problems. In relation to English language learning for vocational students, this stage enables them to practice the usage of language in professional context. Therefore, it affects to their ability to applying the vocabulary learned in work situation.

As Wirosuhardjo (2015) states that vocational education is designed to prepare the students to expert specific skills. It aligns with Walters (1994) who highlights the English for Specific Purposes (ESP) as a teaching approach that address the vocational students' needs. Hutchinson and Waters (1987) mention that ESP as a method of language teaching where the content and methodology are driven by learner' purpose of studying the language.

III. RESULT AND DISCUSSION

3.1 English Vocabulary Mastery Before the Implementation of the STAD Cooperative Learning Method

The aim of the pretest is to assess the students' level of English vocabulary mastery in the context of hospitality. The test consists of fill-in-the-blank questions, it helps to establish a baseline before the treatment is applied. Before implementing the STAD cooperative learning method, the students' English vocabulary typically reflect the traditional teaching method. The students do the test individually, they face many difficulties with the vocabulary application, it because they are not actively engaged in collaborative and interactive classroom environment. In addition, it can limit the development of communicative competence. Without the teamwork and shared goals element, it brings out the inconsistent motivation, the students may not feel the same level of responsibility for their learning as they would in a cooperative learning. Furthermore, the students seem rely on memorization of word lists or definitions that already said by the instructor in previous learning model. It can be said that the approach does not encourage deep understanding or long-term retention of vocabulary well. Overall, English vocabulary mastery before the implementation of STAD tends to be less dynamic.

The data findings were analyzed using the assessment rubric. The result showed that an average pretest score is 69.54 with the highest score is 94 and the lowest score is 43. Based on the results, 21 students (75%) did not pass the minimum passing grade of ≥85, only 7 students (25%) achieved the standard. The significant observations of the worksheet are many of the students made spelling mistake or typographical errors (typo)as well as they left several answer blanks or incomplete. It reflects that theystruggle to figure out the questions, unsure about the vocabulary and the similarity meaning that were seen from the tendency.

These errors resulted from a lack of practice in using the words in meaningful contexts. Also, lack of confidence is assumed that the reason it happens. When the students are ensuring of their vocabulary knowledge or ability to use words correctly, they may prefer to leave a blank answer rather than risk providing an incorrect response.

From the findings, most of students still have low English vocabulary proficiency and there is a clear need for improvement. It is possible to say the lack of peer support and motivation influence the data result. Without the motivation that comes from working in teams, they were primarily responsible for their own learning and it led to minimal effort in mastering vocabulary, contributing to errors and unfinished tasks.In conclusions, before the implementation of the STAD method, the student's rote memorization and individual work did not provide enough opportunities for students to internalize, apply and engage with vocabulary in meaningful ways.

3.2 English Vocabulary Mastery After the Implementation of the STAD Cooperative Learning Method

The purpose of post-test is to evaluate the students' progress after the implementation of the STAD learning method. The test was consisted of the similar questions that was fill-in-the-blank as the pretest. During the treatment was applied, the students became more active and participated in a discussion, they shared ideas and insights which contributed to their engagement and learning. The data results showed an average post-test score is 86.27 with the highest score is 97.14 and the lowest is 74.86. Based on the data found, the number of students that did not pass the passing grade was decrease to 11 students (40%) and 17 students (60%) passed. It indicates that there was a noticeable improvement in vocabulary mastery and highlighted a positive impact of the STAD cooperative learning method on students' English vocabulary in the context of hospitality.

The STAD Method which promotes the interaction, collaboration, and active engagement to improve students' vocabulary mastery through peer and collaborative learning.In team setting, the students felt more accountable to their peers and were encouraged to contribute with the material actively.After the implementation of STAD cooperative learning method, the students has more opportunities to interact with one another and support each other in learning new vocabulary. It affected to enrichment their vocabulary acquisition and the reduction in typographical errors in students' response. During the interactions, students received immediate feedback from their teammates, helping them correct the error and improve their spelling. As a result, the students had a stronger grasp of vocabulary, both in term of retention and application. Due to regular practice and peer discussion, students became more confident in their spelling word's ability, they got better understanding of the words being learned. Moreover, the students began to complete their vocabulary with fewer blank or incomplete responses. The positive reinforcement from the team members helped them to boost motivation, which led to increased effort in completing tasks. Additionally, the award after the learning model motivated them to be better in learning.

With the interactive surroundings, the students were able to engage in the conversations, role-plays, and group activities. It could be stated that STAD method significantly enhanced students' English vocabulary mastery by fostering a more dynamic, supportive and engaging learning environment. Moreover, this learning model contributed to the enhancement of their communication skill, making them better to handle the real interaction context.

3.3 The Effectiveness of the STAD Cooperative Learning on Improving Student English Vocabulary Mastery

The STAD cooperative learning method has proven effective in improving students' mastery of English vocabulary. The effectiveness of STAD can be seen in several key areas:

a.   Observation

The observation by using the observation sheet during the class was done to monitor the implementation of the STAD cooperative learning model. The instructor as the observant was able to observe the interactions of student participation, engagement levels, and the application of the learning method in real-time. One of core principles is that the students work together in a group, engaging in discussion, and problem-solving. The interaction not only helps students to practice the vocabulary but also allows them to retain words through peer teaching and feedback. When they collaborate, they exchange different perspective, learning from each other's explanations and understanding. It helps the solidity more meaningful than individual-based tasks, and make the student easier to recall and apply words in various contexts. Moreover, it increases the motivation and accountability. Since each student has to contributes to the team's overall score, it makes the students more motivated to engage with the material and ensure their teammates understand the lesson being studied. During the observation, the students show the effort to use the vocabulary in practical, not only memorize it. Other important matter is the student continuously practicing communication skill such as listening, speaking, and clarifying ideas.It provided valuable insights into how effective the learning model was.

b.   Questionnaire

The effectiveness of the STAD cooperative learning method in improving students' English Vocabulary mastery is clearly reflected in the results of the questionnaire. The questionnaire had an important role in capturing students' perspective of learning process. It allowed the students to express their opinion by choosing the answer categories were given in improving their English Vocabulary.

A significant number of students expressed positive feedbacks, they mostly selecting "agree" and "strongly agree" regarding the method's effectiveness. This response suggests that students felt that the STAD approach has enhanced their learning experience and vocabulary mastering skill. Although a few students chose 'neutral' as their response, none of them disagreed or strongly disagreed with the effectiveness of the method. Additionally, the students highlighted the increased level of participation in their lesson. Overall, the students accept and value the STAD cooperative learning approach.

c.   Written Test

The effectiveness of the STAD cooperative learning method in improving students' English vocabulary mastery can also be seen in the increased test scores. The data from the students' score can be seen in the table below:

Number of Students	Pre-Test Average Score	Post-Test Average Score	Difference
28 students	69.54	86.27	+16.73

After the treatment, the students demonstrated significant improvements in their performance. It is showed in the increased average of +16.73. It highlights a clear progression in their understanding and mastery of the lesson. The significant rise in scores of the pre-test and post-test affects to the passing grade categories. Large number of students reached performance levels categorized as "good" and "very good" category. It underscores the effectiveness of this method is fostering better vocabulary skills. Moreover, it highlights that through the cooperative learning process, the students were able to retain and use the vocabulary more effectively. This positive change reinforces the value of the educational approach used.

IV.   CONCLUSION

The data findings of this study showed a noticeable improvement in students' English vocabulary mastery after the STAD cooperative learning model was applied. It was proved from the qualitative analysis of the data, classroom observations, and questionnaire. During the activity, the students exhibited high levels of enthusiasm and interest in learning. The success of the model presents that 21students (75%) failed to meet the minimum passing grade of ≥85, with only 7 students (25%) achieving the required standard. However, after the STAD method was applied, the results showed significant progress, with 11 students (40%) still below the passing grade and 17 students (60%) successfully meet the standard.

This outcome exhibits the model not only enhances academic performance but also contributes to students' active involvement and positive attitudes toward learning English vocabulary in a vocational education context that are crucial in real-life setting.

REFERENCES

[1]   Cameron, L. (2001). *Teaching Languages to Young Learners*. Cambridge University Press.

[2]   Hake, R. R. (1999). Analyzing change/gain scores. *American Journal of Physics*, *66*(1), 64-70

[3]   Hornby, A. S. (1995). *Oxford Advanced Learner's Dictionary of Current English* (5th ed.). Oxford University Press.

[4]   Hutchinson, T., & Waters, A. (1987). *English for specific purposes: A learning-centered approach.* Cambridge University Press.

[5]   Piaget, J. (1972). *The psychology of the child*. Basic Books.

[6]   Slavin, R. E. (1995). *Cooperative learning: Theory, research, and practice* (2nd ed.). Prentice-Hall.

[7]   Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.

[8]   Walters, S. (1994). English for specific purposes: An approach to language teaching. *Journal of Applied Linguistics, 10(4)*, 112-125.

[9]   Webster, M. (1992). *Merriam-Webster's Collegiate Dictionary* (10th ed.). Merriam-Webster.

[10] Wirosuhardjo, A. (2015). Vocational education is designed to prepare the students to acquire specific skills. *Journal of Vocational Education*, *22*(3), 45-56.