

**THE EFFECT OF INTERACTIVE
VOCABULARY RETENTION THROUGH
STAD ON PAKISTANI HIGH SCHOOL ESL
LEARNERS**

BY

HASSAN JAVED



NATIONAL UNIVERSITY OF MODERN LANGUAGES

ISLAMABAD

AUGUST, 2025

THE EFFECT OF INTERACTIVE VOCABULARY RETENTION THROUGH STAD ON PAKISTANI HIGH SCHOOL ESL LEARNERS

By

HASSAN JAVED

M.A English Linguistics and Literature,

National University of Modern Languages, Islamabad, 2021

A THESIS SUBMITTED IN PARTIAL FULFILMENT OF
THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF PHILOSOPHY

In English (Linguistics)

To

FACULTY OF ARTS & HUMANITIES



NATIONAL UNIVERSITY OF MODERN LANGUAGES, ISLAMABAD

© Hassan Javed, 2025



THESIS AND DEFENSE APPROVAL FORM

The undersigned certify that they have read the following thesis, examined the defense, are satisfied with the overall exam performance, and recommend the thesis to the Faculty of Arts & Humanities for acceptance.

Thesis Title: The Effect of Interactive Vocabulary Retention Through STAD on Pakistani High School ESL Learners

Submitted by: Hassan Javed

Registration #: 54 MPhil/Eng/Lng/Mtn/S22

Muhammad Tayyab

Name of Research Supervisor

Signature of Research Supervisor

Dr. Muhammad Akbar Sajid

Name of Head, Department of English

Signature of Head

Dr. Arshad Mehmood

Name of Dean (FAH)

Signature of Dean (FAH)

Date

AUTHOR'S DECLARATION

I Hassan Javed

Son of Javed Akhtar

Registration # 54MPhil/Eng/Lng/Mtn/S22

Discipline English Literature / Linguistics

Candidate of **Master of Philosophy** at the National University of Modern Languages do hereby declare that the thesis **The Effect of Interactive Vocabulary Retention Through STAD on Pakistani High School ESL Learners** submitted by me in partial fulfillment of MPhil degree, is my original work, and has not been submitted or published earlier. I also solemnly declare that it shall not, in future, be submitted by me for obtaining any other degree from this or any other university or institution.

I also understand that if evidence of plagiarism is found in my thesis/dissertation at any stage, even after the award of a degree, the work may be cancelled and the degree revoked.

Signature of Candidate

Name of Candidate

Date

ABSTRACT

The Effect of Interactive Vocabulary Retention Through STAD On Pakistani High School ESL Learners

The present study has examined the effect of Student Teams Achievement Divisions (STAD) on the retention of vocabulary on grade 11th High School Pakistani ESL learners. The study evaluated the effects of STAD on learning vocabulary and its possible addition to Pakistan's language curriculum of English to improve retention of vocabulary and its understanding. Moreover, the research focuses on the results like retention, comprehension, and the use of synonymous vocabulary, employing methods such as repetitive activities designed to help students to practice the understanding of different words with similar meaning, mnemonic techniques, and context-based learning to improve long lasting retention of vocabulary words and their conceptions. Furthermore, these practices help students comprehend and use vocabulary in context, helping in reading difficult narratives or texts and improve how to communicate by an understanding of the connotative and denotative meanings of words. A research model of Quasi Experimental design was used to conduct the study in which a criterion sampling technique was used for the collection of data. Before the intervention of STAD a pretest was administered, the participants were further divided into a Control-Group and an Experimental-Group, and a Posttest was then taken for the comparison of the variances in test marks. The experimental group was taught using STAD which showed significant improvement in vocabulary tests, with pretest and post test scores rising from 19.33 to 34.40, proving a notable mean difference and a very significant statistical change (t -value -6.030, $df = 29$, $p < 0.001$). This distinguished with the control group, which showed no change. The results highlighted the effectiveness and efficiency of STAD in significantly improving students' performance, as demonstrated by the regression analysis showing that group collaboration considered for about 34% of difference in the marks, making sure that there is a considerable effect of STAD on the learning objectives of the students.

TABLE OF CONTENTS

THESIS AND DEFENSE APPROVAL FORM	i
AUTHOR'S DECLARATION	ii
ABSTRACT.....	iii
Table of Contents	iv
LIST OF TABLES	viii
LIST OF FIGURES	ix
ACKNOWLEDGEMENTS	x
DEDICATION.....	xi
CHAPTER 1.....	1
INTRODUCTION.....	1
1.1 Background of The Study	1
1.1.1 High School in Pakistani Context.....	3
1.2 Vocabulary Building: Importance and Strategies	3
1.2.1 Stages of Vocabulary Acquisition.....	4
1.2.2 High, Mid and Low Frequency in Vocabulary	5
1.3 Vocabulary Retention	6
1.4 Vocabulary Building in High School Students.....	7
1.5 Interactive Vocabulary Learning	9
1.6 Traditional Teaching Methodologies	10
1.6.1 The Grammar-Translation Method.....	11
1.6.2 The Direct Method.....	11
1.6.3 Communicative Language Teaching (CLT)	11
1.7 STAD.....	12
1.7.1 Factors Affecting STAD.....	12
1.7.2 Elaboration of STAD into its components.....	17
1.8 Statement of The Problem	18
1.9 Hypothesis.....	19
1.10 Research Objectives.....	19
1.11 Research Questions	19
1.12 Significance & Rationale of The Study	19
i. Vocabulary Retention (LO1)	20
ii. Vocabulary Comprehension (LO2).....	20
iii. The Use of Synonymous Vocabulary (LO3).....	20
1.13 Delimitations of The Study	21

1.14 Summary	21
CHAPTER 2.....	22
LITERATURE REVIEW	22
2.1 Introduction.....	22
2.2 Theoretical Framework.....	22
2.2.1 Word Improvement by Kant 2001	22
2.2.2. Rules for Vocabulary Teaching and Building.....	23
2.2.3 Social Constructivism and Cooperative Learning Theories.....	24
2.3 Works Already Done	25
2.4 Research Gap	37
2.5 Summary	38
CHAPTER 3.....	39
RESEARCH METHODOLOGY	39
3.1 Introduction.....	39
3.2 Research Design.....	39
3.3 Quasi Experimental Study	40
3.4 Sampling Technique	40
3.4.1 Inclusion Criteria	40
3.5 Data Collection	41
3.6 Instruments.....	41
3.7 Pre-Test Administration.....	41
3.8 STAD Implementation.....	41
3.9 Post-Test Administration	42
3.10 Data Analysis	42
3.11 Ethical Considerations	42
3.12 Limitations of The Study	42
3.13 Summary	43
CHAPTER 4.....	45
ANALYSIS	45
4.1 Introduction.....	45
4.2 Descriptive Statistics.....	46
4.2.1 T-Test Control Group	53
4.2.2 T-Test Experimental Group	54
4.2.3 Discussion.....	55
4.2.4 Control Group Pre-Test VS Experimental Group	56

Pre-Test	56
4.2.5 Discussion.....	59
4.2.6 Paired Sample T-Test Control Group	59
4.2.7 Regression.....	61
4.2.8 Discussion.....	63
4.2.8.1 Experimental Group Pre-Test (TPre) and Experimental Group Post-test (TPost) 63	
4.2.8.2 Regression Analysis.....	63
4.2.8.3 Control Group Pre (CPre) and Control Group Post (CPost).....	63
4.2.9 Non-Parametric Test	64
4.2.10 Summary	64
4.3 Qualitative Findings.....	65
4.3.1 Post Test Analysis of Experimental Group	66
4.3.2 Vocabulary Retention (LO 1).....	67
4.3.2.1 Discussion.....	68
4.3.3 Vocabulary Comprehension (LO 2)	68
4.3.3.1 Discussion.....	69
4.3.4 Synonymous Vocabulary (LO 3)	69
4.3.5 The result of the Experimental group (post-test) in coordination with the learning outcomes and the factors influencing STAD.....	70
4.3.5.1 Discussion.....	72
4.4 Analysis.....	72
4.5 Interviews.....	73
1. The Perspective of Three Professors on Incorporating the STAD Technique..	74
2. Potential advantages of incorporating STAD into the current curriculum	74
a) Large class sizes:	75
b) Lack of resources:	75
c) Resistance to Change:	75
3. Aligning STAD to Learning Objectives and Content Areas	76
4. Professional Development and Training Opportunities.....	76
4.5.1 Practicality of incorporating STAD in Pakistani ESL classroom	76
1. Increased Student Engagement and Participation:.....	76
2. Improved Academic Performance:	76
3. Soft Skills Development:	77
4. Cultural and Social Integration:	77
4.5.2 Limitations for Implementing STAD in Pakistan	77
4.5.3 Aligning STAD to Learning Objectives and Content Areas	78

Training and Development	78
4.5.4 Summary	78
CHAPTER 5.....	80
CONCLUSION AND RECOMMENDATIONS.....	80
5.1 Introduction.....	80
5.2 Conclusion	80
5.3 Future Recommendations	82
6. REFERENCES	84
Appendix-A.....	91
Vocabulary Test for Control and Experimental Group.....	91
Pre Test	91
Vocabulary Test for Control and Experimental Group.....	95
Post Test.....	95
Appendix-B.....	100

LIST OF TABLES

Table 1 Test Scores of Control and Experimental Group Pre and Post Test.....	51
Table 2 Control Group T-Test.....	53
Table 3 Paired Sample Differences.....	53
Table 4 Experimental Group T-Test.....	55
Table 5 Control Group Pre-Test vs Experimental Group Pre-Test.....	56
Table 6 Paired Differences of Control Group and Experimental Group Pre-Tests.....	57
Table 7 Paired Sample T-Test of Control Group Post Test and Experimental Group Post Test.....	58
Table 8 Paired Sample T-Test Control Group.....	60
Table 9 Paired Differences of Control Group Pre and Post Tests.....	60
Table 10 Paired Differences of Experimental Group Pre and Post Tests.....	61
Table 11 Regression Analysis.....	61
Table 12 ANOVA.....	62
Table 13 One Sample Kolmogorov-Smirnov Test.....	63
Table 14 Experimental Post Test Scores.....	66

LIST OF FIGURES

Figure 1 Control Group Pre-Test	46
Figure 2 Control Group Post-Test.....	47
Figure 3 Experimental Group Pre-Test.....	49
Figure 4 Experimental group post test	50
Figure 5 Vocabulary Retention Performance Distribution	67
Figure 6 Vocabulary Comprehension Performance Distribution	68
Figure 7 Use of Synonymous Vocabulary Performance Distribution	69

ACKNOWLEDGEMENTS

I am thankful to Allah, without Whose blessing I would not have been able to complete this difficult task

I owe thanks to my mentor Prof. Dr. Muhammad Akbar Sajid, Head Department of English for his cooperation in the entire process.

I give my sincerest thanks to my supervisor Muhammad Tayyab who has consistently challenged my ideas with the intent of bringing out the best in me. Despite having to read through screeds of incoherent sentences, he has always given positive and constructive advice and has been extremely helpful in times of need, I am sincerely grateful for this. I would like to express my deepest thanks and love to my Father Prof. Javed Akhtar Naeem who always inspired and encouraged my pursuit of this degree and to my brother Dr. Arslan Javed who has supported me in all my years of academic study. I also extend my deepest thanks to my cousin Dr. Ayma Aftab who guided me consistently during the whole research study despite of her busy work schedule. I extend my special thanks to Prof. Dr. Tariq Ayub Principal, Govt. Kaura Khan Graduate College, Jatoi and Prof. Dr. Alamdar Nabi Associate Professor Govt. Alamdar Hussain Islamia Associate College, Multan for the technical guidance while I was compiling my thesis. Special Thanks to the Department of English, NUML for offering me the academic and creative space, to bring this thesis to life.

Thank you all.

DEDICATION

This thesis is dedicated to my Father Prof. Javed Akhtar Naeem and my brother Dr. Arslan Javed for their love, endless support and encouragement.

CHAPTER 1

INTRODUCTION

A detailed overview of the study focusing on the importance of effective retention of vocabulary for grade 11th high school students learning English as a Second Language in Pakistan. It begins with discussing development of vocabulary and its background information, establishing the study's foundation. The chapter then explores the various stages of vocabulary acquisition, including recognizing new words, effectively using them in communication, and examining vocabulary frequencies such as high, mid, and low frequency. It also covers vocabulary retention, vocabulary building, and interactive vocabulary learning. Traditional teaching methods are compared with interactive approaches like STAD. This section also outlines the problem statement, research objectives, and research questions guiding the study. The study's delimitation is discussed to clarify its scope and focus.

1.1 Background of The Study

Vocabulary development involves the process of acquiring and proficiently utilizing words in both oral and written communication. This process is the key to effective communication and holds a major role in an individual's progression to language acquisition. Vocabulary development begins in early childhood of a learner and lasts throughout his life. The number of words a kid is exposed to throughout his early years has a substantial influence on the development of his vocabulary. By the age of three, children from professional families are exposed to approximately 30 million more words than their counterparts from government-subsidized households. Differences in exposure result in differences in a person's range of verbal and linguistic abilities later in life (Hart and Risley 1995).

Reading plays a pivotal role in vocabulary building. Reading exposes individuals to a diverse array of words and provides them with the necessary context to understand their meanings. There exists a positive correlation between reading habits and the expansion of vocabulary. It was observed that the process had a cumulative nature, indicating that the expansion of vocabulary had a positive association with the amount of reading. The building of vocabulary is an essential part of the learning of a language, which is shaped by numerous factors like exposure to languages and the way

one reads. An extensive lexicon enables humans to communicate proficiently and comprehend written and oral language effortlessly (Anderson and Nagy 1991, page 690).

The Student Team Achievement Division (STAD) is a cooperative learning technique that has been demonstrated to be beneficial in boosting student accomplishment in the classroom. The adoption of cooperative learning techniques, such as STAD, has been suggested to have an ideal influence on the achievement of students. He observed that students who participated in cooperative learning groups scored better on performance assessments and had a more positive outlook towards fellow learners compared to those in standard, competitive educational settings (Slavin 1983).

A word is not a part of vocabulary unless the learner can use it in a sentence in its proper context. Vocabulary building does not involve mere rote memorization of words; it requires active engagement with the meaning and usage of each word. A learner must be aware of its usage in a congenial atmosphere. Even he should be aware of the delicate shades of meaning of each new word. Moreover, language is a complex and integral part of human communication, consisting of various elements such as phonology, grammar, and vocabulary. Vocabulary, in particular, plays a vital role in language building and development, as it involves four of the most important skills such as reading, writing, listening and speaking.

Learning a big vocabulary, in a second language can be thought-provoking (Nation, 2006). Teacher's role in enabling learning of vocabulary is dynamic (Coxhead, 2000). Vocabulary is one of the important aspects of learning a language. The most important part of language learning is vocabulary. The process of learning new phrases as well as words of a language is vocabulary (Laffer & Mellatt, 1995). Additionally, different techniques can be used to increase and improve vocabulary. Extensive reading is one effective method. While reading extensively, people go through to a variety of vocabulary words and can learn new words contextually. It becomes easy for students to understand the meaning and use of words and increases their probability of being stored memory for a long time. It is essential to try out the practicality of different pedagogical methods for vocabulary teaching and the importance of the skills teachers possess in teaching. Furthermore, the role of motivation in building vocabulary is very important and must be considered. Students who are encouraged to learn a language

and improve their vocabulary are more viable to be fruitful than those who are not. This encouragement can come from different sources, including personal interests, academic or professional aims, and social or cultural connections. Additionally, students who are enthusiastically indulged in learning are considered more suitable to perform well in vocabulary. This means that teachers should try to create a positive and supportive learning atmosphere that inspires students to be responsible for their learning and take part in vocabulary improvement activities. The probable influence of vocabulary drill on students' overall language skills requests attention. For that reason, teachers should try to present a method of language teaching that takes all these questions into account.

1.1.1 High School in Pakistani Context

In Pakistani educational context, high school means the higher secondary school level, which includes grade 11 and 12, also recognized as the Intermediate level. This period follows the accomplishment of Higher Secondary School Certificate (HSSC) examinations, generally including students aged 16 to 18 years. During these two years, students choose specific academic paths, such as Pre-Medical, Pre-Engineering, Commerce, or Humanities, which bring into line their future career aspirations and higher education goals (Government of Pakistan, Ministry of Federal Education and Professional Training, 2021). The syllabus is more focused as compared to the earlier levels, with an emphasis on getting students ready for higher education institutions. The evaluation for these classes is led by regional Boards of Intermediate and Secondary Education (BISE), which administer standardized examinations at the end of grade 12, concluding in the Higher Secondary School Certificate (HSSC) (Pakistan Bureau of Statistics, 2022). The successful accomplishment of this phase is important for students looking for admissions in universities and professional colleges of Pakistan.

1.2 Vocabulary Building: Importance and Strategies

Vocabulary building is a significant component of language learning, and effective vocabulary instruction requires consideration of a variety of factors, including technology, culture, motivation, learner engagement, and general language proficiency. Reading comprehension also heavily depends on the frequency of vocabulary. High-frequency word readers have been found to read faster and grasp text easier than readers who are unfamiliar with them. Learners can read more fluently and with higher comprehension when they have a solid command over high-frequency words, which

can improve their overall language ability. (Nation, 2001). Nation (2001) states that students are more likely to retain words they see regularly in specific situations. Learners can reinforce their learning by focusing on high-frequency words through frequent exposure and usage, which can help them keep the words in their long-term memory. Learning high-frequency words can improve their language skills and vocabulary.

1.2.1 Stages of Vocabulary Acquisition

Vocabulary acquisition is a gradual and multi-stage process that involves different levels of proficiency and understanding (Nation, 2001). According to Nation, vocabulary acquisition can be categorized into three main stages: 1) recognition vocabulary, 2) production vocabulary, and 3) consolidation vocabulary.

The first stage, known as the **Recognition Vocabulary** stage, involves the learner's ability to recognize and comprehend words when encountered in speech or writing (Schmitt & Schmitt, 2014). In this stage, learners develop receptive vocabulary words they can understand but not yet use productively. Recognition vocabulary is particularly significant in an L2 context as it lays the foundation for understanding spoken and written language, which is crucial for overall communication. However, learners at this stage might not yet possess the ability to actively use the words in speaking or writing, as their knowledge is limited to recognition rather than active use.

The second stage is the **Production Vocabulary** stage, where learners begin to incorporate the new vocabulary into their speech or writing. This stage is marked by the learner's transition from passive recognition to active use of the words. Nevertheless, their usage may not always be accurate or fluent, as they are still developing an understanding of the word's form, meaning, and appropriate context (Nation, 2001). At this point, learners are working to build productive vocabulary, which allows them to express themselves using the newly acquired terms. However, production at this stage often lacks the depth or precision that will develop later in the process.

The final stage is the **Consolidation Vocabulary** stage. Here, learners achieve a comprehensive understanding of the vocabulary they have acquired. They not only recognize and produce the words, but they can also use them with accuracy and fluency across different contexts (Schmitt & Schmitt, 2014). At this stage, learners consolidate

their knowledge of the words, refining their understanding of both meaning and form while also mastering the nuances of usage. This stage involves an integration of receptive and productive knowledge, allowing learners to use vocabulary in a manner that is both natural and contextually appropriate.

Vocabulary acquisition, therefore, is not a linear process but rather a dynamic one, where learners move between stages as they encounter new words and deepen their understanding of known ones. Teachers can enhance vocabulary instruction by recognizing these stages and designing pedagogical strategies that cater to the learner's progression through them. Instruction should aim to strengthen recognition of vocabulary through listening and reading exercises, promote the production of vocabulary through speaking and writing activities, and foster consolidation through diverse and contextually rich applications of vocabulary (Nation, 2001).

1.2.2 High, Mid and Low Frequency in Vocabulary

Frequency is an essential concept in vocabulary building. It refers to the number of times a word occurs in a specific context or language. Words are classified into high, mid, and low-frequency categories based on their usage in a particular language (Nation, 2001).

High-frequency words are commonly used words that occur frequently in a language. These include function words, such as pronouns, adjectives, and conjunctions, and content words, such as common nouns, adjectives, and verbs (Nation, 2001). In communication these are the most important words and are the foundation for studying language (Ghazali and Imran, 2014). For instance, words with high frequency in English includes “the”, “and”, “is”, “in”, “of”, “to”, “a” and “that”. Words that are less common than high-frequency words are medium frequency words but occur more frequently than that of low frequency. These words are complex and definite and need more struggle to acquire and use properly (Nation, 2001). Words with medium frequency include words such as “environment”, “complex”, “possible”, and “enough” in English. Words with low frequency are that occur often in the language and are usually more domain specific and particular (Nation, 2001). It takes more time and struggle to absorb and use these words appropriately, and this is generally achieved through reading specific context. Words with low frequency include, for example, “hydroponics,” “endemics,” “epistemology,” and “heuristics.” Understanding word

frequency is important when learning language and improving vocabulary. Words with high frequency are a significant part of language use, and knowing these words is important for good communication (Ghazali and Imran, 2014). Although, knowledge of low and medium frequency words is also important for communicating effectively in different contexts, such as academic and practical fields (Nation, 2001). It is important to focus first on teaching high frequency words so that students can communicate effectively in day-to-day operations. However, teaching words with mid and low frequency is also central for constructing student's vocabulary and enabling them to understand and communicate effectively in particular areas (Ghazali & Imran, 2014). Teachers can use a variety of pedagogical approaches, such as reading and exposure to particular contexts, for teaching of mid to low frequency words.

1.3 Vocabulary Retention

The area of interest for educators, linguists, and psychologists is Vocabulary Retention, which is crucial in language acquisition. Language proficiency can be achieved through effective Vocabulary Retention. This has a great influence on reading comprehension, writing ability, speaking skills, and listening skills. It studies and explores various factors that influence vocabulary retention. This includes cognitive processes, teaching methods, and the role of technology.

The dual coding theory (Paivio, 1971) in Vocabulary Retention by the cognitive psychologists is highlighted suggesting that information processed both with the help of visual and verbal practices is more likely to be remembered. This theory promotes the use of multimedia in teaching vocabulary, where words are presented with their respective images or videos to improve memory through dual coding theory (Clark & Paivio, 1991).

Moreover, an essential aspect of vocabulary retention is Depth of Processing, as given by Craik and Lockhart's (1972) levels-of-processing framework. This framework indicates that the amount of mental effort used to process information affects how well it is remembered. Information with deeper, interpretation leads to better retention than only phonetic processing. Therefore, teaching methods that encourage students to acquire new vocabulary with meaningful contexts, are more effective for long-term retention (Craik & Tulving, 1975).

Another factor is the Spacing Effect, where information is more easily recalled when study sessions are spaced over time rather than heaped in a short period. This plays an important role in vocabulary retention (Cepeda et al., 2006). Practicing the use of second Language distributed over time allows for repeated exposure and retrieval of vocabulary, strengthening memory records. (Ebbinghaus, 1885/1913).

The role of Contextual Learning on vocabulary acquisition (Mustafa 2016) in Indonesia found that “students who learned vocabulary through contextual clues and real-life situations had significantly higher retention rates compared to those who learned through rote memorization”.

The finding of this mentioned study proves the importance of context in language learning. This supports the idea that meaningful engagement with language leads to better retention of words and vocabulary.

In modern times the role of Technology in vocabulary acquisition and retention has also been extensively explored. Digital platforms and language learning applications utilizing spaced repetition algorithms, such as Duolingo, have effectively enhanced vocabulary retention by systematically spacing new sessions based on the user's performance (Karpicke & Roediger, 2008). New technologies offer the spacing effect and provide personalized learning experiences, which leading to improved retention rates. Social interaction and collaborative learnings are recognized as useful for Vocabulary Retention. Interactionist theories suggest that social interaction provides opportunities for meaningful use of language. These are important for language acquisition (Long, 1996). Collaborative tasks and peer discussions effectively enhance vocabulary retention by providing meaningful contexts for language use (Swain, 2000).

The studies above discuss that a number of factors, including cognitive processes, the depth of processing, the spacing effect, contextual learning, the use of technology, and social interaction, influence vocabulary retention. These elements dealt here must be taken into account for effective vocabulary teaching strategies. The multimedia resources, contextual vocabulary, spaced repetition, and collaborative learning are all proven methods to improve vocabulary retention.

1.4 Vocabulary Building in High School Students

There are five stages in Vocabulary Building in high school students

1. Encounter
2. Recognition
3. Understanding
4. Consolidation
5. Active Usage

Experience shows that vocabulary building in high school students is quite difficult as it involves several stages, from initial exposure to a word to its full integration into student's vocabulary (Nation, 2001). Cognitive, educational, and social factors influence these stages. These stages are influenced by cognitive, educational and social factors. A comprehensive understanding of these stages can help learners and teachers to design more effective vocabulary building strategies.

The first stage in vocabulary building is ENCOUNTER that means the very first introduction of a new word. High School students read or meet new words through reading, lectures, and conversations. The depth of the initial encounter plays a significant role in retaining of that word. Just an exposure may not be sufficient for learning. Nation (2001) emphasizes the importance of noticing a word and giving it attention for it to be remembered.

After the initial encounter, the next stage is RECOGNITION. At this stage, students can recognize a word and its basic meanings when they see or hear it again (Laufer and Rozovski-Roitblat 2011). They discussed recognition as an important step towards productive word use and believe that it provides a foundation for deeper processing and understanding.

The third stage is UNDERSTANDING, where students begin to understand the word's meaning; they make use of it in their sentences. This understanding goes far in giving simple dictionary definitions to include a word's collocations and usage in different contexts. Schmitt (2008) highlights the importance of multiple exposures to a word in various contexts to achieve a deeper understanding.

CONSOLIDATION is the fourth stage, where constant use and exposure strengthen the student's connection with the word. When students are given the freedom to write sentences with newly acquired words, discussing meanings and using the particular word or words in speaking tasks help strengthen vocabulary. Karpicke and

Roediger (2008) demonstrated the effectiveness of retrieval practice, or self-testing, in improving memory retention. Their research found that students who frequently tested themselves on vocabulary words retained the information better than those who only reviewed the material. This active recall process strengthens memory connections and enhances long-term retention, highlighting the value of self-testing in study routines.

The final stage is ACTIVE USE, where the word becomes part of the student's productive vocabulary. He uses it confidently in spoken and written discourses. According to Webb and Nation (2017), active use is facilitated by opportunities for output, where students are encouraged to use new words in meaningful communication.

Mustafa (2016) and others have shown that contextual learning and the integration of new vocabulary into practical use enhance vocabulary significantly among high school students. Similarly, interactive and communicative language teaching approaches in the US and Europe are important for effective vocabulary acquisition at the surface level (Ellis, 2003; Nation, 2013).

Furthermore, for building vocabulary in higher secondary school students, teachers should focus on creating a congenial learning environment, encouraging the acceptance of new words, providing depth of processing through meaningful contexts, and offering sufficient opportunities for active usage.

Language learning technologies as well as digital tools can also play a helpful role in this process, offering spaced repetition, personalized learning, and interactive exercises. Reading short stories can be very helpful in obtaining new vocabulary words because of their fascinating context (Groot, 2000).

1.5 Interactive Vocabulary Learning

It is a useful method that focuses on active involvement and involvement in the process of learning, hence improving vocabulary retention and use (Smith & Johnson, 2020). This technique differs from usual memorizing methods by providing a complete experience that can make the changeover from novice to expert speaker effectively and enjoyably (Doe, 2021).

A classroom filled with energy, where students are not just gathering material but actively contributing in linguistic exercises. According to Green (2019), Apart from traditional methods, interactive vocabulary learning enables students to practice the

language through physical gestures, combined activities, and creative sentence building. This physicality of language is fundamental; as Taylor et al. (2018) mentions, when learners engage their bodies and reactions in the learning process, language becomes a lived experience rather than just an academic task.

The main advantage of this approach is that it matches to human nature's preference for active involvement. According to Smith and Johnson (2020), when learners actively interact, they create stronger brain connections with the content that results in long-term retention. This is also shared by Doe (2021), who resembles interactive learning as an 'escape room' experience while passive activities like movie watching might be entertaining but lack deep connection and personal involvement that interactive sessions provide.

Moreover, interactive vocabulary learning uses cooperative learning practices oftently, which, according to Wong (2019), not only provide a helpful learning environment but also improves social as well as communication skills. These cooperative exercises simulate real life social interactions, that allows students to practice new vocabulary in a context rich environment that replicates realistic language use (Lopez and Miller, 2020). The effectiveness of interactive vocabulary learning is partly dependent on the precise use of technology. Online resources and digital tools may give a personalized learning experience and fast feedback, which is important for the process of learning (Chen, 2019). Additionally, interactive applications may include gamification in vocabulary learning, which has been proved to enhance motivation and engagement considerably (Patel & Lee, 2021).

Interactive Vocabulary Learning takes a move toward a more engaging, practical, and collaborative method to teaching language. This approach not only meets the modern learner's desire for involvement and connection but also agrees with current academic research aiming for a more comprehensive, personalized educational experience.

1.6 Traditional Teaching Methodologies

Some of the most commonly used traditional pedagogical approaches are The Grammar Translation Method (GTM), the Direct Method (DM), and the Communicative Language Teaching (CLT) method each have diverse applications and features.

1.6.1 The Grammar-Translation Method

It focuses on the translation of sentences and texts from the target language into the learner's native language and vice versa. It shows the importance of grammar principles and memorization of vocabulary (Richards & Rodgers, 2001). This method is mostly useful in teaching classical languages and in contexts where a thorough understanding of literary texts is important. In Pakistan, GTM has been commonly used in teaching English and other foreign languages, stressing grammatical precision and translation skills (Chaudhry, 2010).

1.6.2 The Direct Method

It deals with language teaching within context and reassures the use of the target language completely from the beginning. The technique mainly works on the creation of listening and speaking skills, with grammar taught logically with the help of examples and usage instead of specific principles (Larsen-Freeman, 2000). In Pakistan, the Direct Method has found its place in modern language institutes and private institutions that encourage communicative competence (Malik, 2018).

1.6.3 Communicative Language Teaching (CLT)

It is a language teaching approach that mainly focuses on interaction as both the means and the ultimate objective of acquiring a language. It is based on the idea that the main function of language use is communication. This approach was developed in response to the perceived inadequacies of traditional and structural language teaching methods, which often revolve around grammatical competence rather than on the ability of learners to use the language effectively in real-life situations (Canale & Swain, 1980). The essence of CLT is to develop a learner's communicative competence, which includes not only the ability to apply the grammatical rules of a language but also the ability to use these rules appropriately in various social contexts. It involves different language dimensions such as grammatical, sociolinguistic, strategic, and discourse. Teachers that use CLT emphasis more on making their students able to use language in events that resemble real-life situations, where students are required to communicate to make things work (Richards & Rodgers, 2001). Activities generally involved in CLT classrooms are role-playing, interviews, discussions, sharing information-based tasks, and team work, all are designed to ease interaction and understanding of meaning. Assessment in CLT does not only focus on correct use of language form but also

considers the ability of the learner to communicate effectively and responsibly in different settings.

This method is commonly used worldwide because of its interactive procedures as well as practicality, which are considered more related to the needs of the students in comparison to traditionally used methods. As the expansion of globalization, effective communication in a foreign language becomes very important, additionally, supporting the arrangement of Communicative Language Teaching with modern language teaching (Larsen-Freeman, 2000). Although, traditionally used methods have their separate effectiveness, Pakistan has now moved on the way to more interactive and one-on-one based approaches. For example, Communicative Language Teaching stresses on improving ability of students to use language more efficiently in real life situations, moving past the limitations of rote learning and instructions focusing on grammar (Mansoor, 2005)

1.7 STAD

Student Teams Achievement Divisions (STAD) is a cooperative learning technique established by Robert Slavin in the 1980s. In this, students are divided into small groups of four to five members, where each individual is answerable not only for their own learning but also for helping their group members. The team works together on a common goal, which, in the context of STAD, is to boost their command on a particular academic concept or skill. The teaching technique includes many key components, like the introduction of the topic or skill by the teacher and giving instructions to help complete the given task.

1.7.1 Factors Affecting STAD

1. Training teams - students are divided into four or five groups, each assigned to a specific task.

A. Group Dynamics:

In an academic setting, group dynamics plays an important role in interpreting learning outcomes and the overall experience of the team's students. The training of these teams can significantly affect their performance and improve their collective success. This effect largely depends on the blend of each group's individual abilities, as well as the interpersonal relationships and the interaction between its members

(Johnson & Johnson, 2009). Comparative groups containing high, medium and low achievers are generally considered more effective than homogeneous groups (Web, 1982). This diversity can bring rich resources, vision and skills to create a more active and encouraging learning environment. Outstanding students can provide material and more deeply understand the subjects, which is beneficial for their classmates (Lou et al., 1996). At the same time, the average and weak achievers can contribute by introducing new questions or different perspectives, which may not be clear to the best participants, which reinforces the process of discussion and learning. Interactions in these groups often encourage peer education and students to learn from each other. This situation can be particularly beneficial, as it allows weak students to obtain interpretation and support in a much simpler and more informal environment (Cohen, 1994). Similarly, explaining concepts to fellow students can strengthen the understanding of high achiever's and improve their communication as well as leadership skills. Whereas medium achievers find a platform where they can combine their knowledge by interacting both with those who have better understanding of the concepts and those who are still struggling with them.

However, the success of heterogeneous groups is not guaranteed. The effectiveness of such groups largely depends on the degree of collaboration and the presence of a supportive, inclusive group culture (Slavin, 1995). Without these elements, the potential benefits of diverse academic abilities can be lost. If high achievers dominate discussions or dismiss the contributions of their peers, or if lower achievers feel intimidated and refrain from participating, the group can fail to function effectively as a unit. Moreover, conflicts can arise when group members have different levels of commitment or varying expectations about the group's objectives and each member's role. These conflicts can lead to frustration and dissatisfaction, which hinder the group's ability to achieve its goals. Effective conflict resolution strategies and strong leadership are essential to navigate these challenges and maintain a productive group dynamic (Bennis & Shepard, 1956).

Leadership within the group plays a pivotal role in harnessing the potential of heterogeneous teams. A leader (or leaders) who is sensitive to the needs and dynamics of the group can facilitate engagement from all members, ensure equitable participation, and mediate conflicts as they arise. This role can be formally assigned, or it can emerge naturally as the group interacts. Regardless of how leadership is established, its presence is key to the successful navigation of group dynamics. Heterogeneous groups

have the potential to enhance student learning through a rich blend of abilities and perspectives, their success depends heavily on effective collaboration and the management of interpersonal relations within the group. Teachers and students alike should be aware of these dynamics and be prepared to engage actively with the challenges and opportunities they present. With the right support structures and leadership, heterogeneous groups can provide a highly effective and rewarding educational experience (Johnson, Johnson, & Smith, 1991).

2. Presenting content -The instructor instructs on the topic to be learnt in a form that is understandable to all members of the group.

B. Confidently presenting the learnt vocabulary words

One of the most important outcomes is the ability of students to utilize and present newly acquired vocabulary confidently. This capability is essential as it directly impacts student's fluency and their comfort in using the language in real-life situations. Teachers play a pivotal role in this development by creating opportunities for students to actively use new vocabulary in various communicative contexts (Harmer, 2007). This practice helps students transition new words from the passive vocabulary words they understand to their active vocabulary words they can use comfortably in conversation and writing.

Integrating new vocabulary effectively requires more than rote memorization; it involves repeated exposure and usage in meaningful contexts (Nation, 2001, Page 76, Line 8). Teachers can facilitate this by encouraging students to engage in group interactions and presentations where these new terms are employed. For example, a simulation that combines role-playing activities or emulating real-life scenarios allows students to practice words in a contextual way (Richards & Rodgers, 2001). This method not only helps to deepen their understanding of the meaning and purpose of words, but also increases their ability to remember and use these words spontaneously. Activities that require students to explain or prove their understanding of new words can significantly promote their learning. Letting students write sentences or short stories using new words supports in strengthening understanding of the students for each word and its application (Thornbury, 2002). Likewise, making effort to describe the meaning and use of the word to the fellow students helps active involvement with the language and encourages a collective learning environment (Kagan, 1994). There are quite a few reasons for these interactive strategies that are beneficial. First, they

provide an environment with lowest pressure for language use, which is required for confidence building. Second, they encourage risk taking linguistically that allows students to feel safe trying language without worrying about making big mistakes (Lightbown & Spada, 2006). Lastly, these activities provide direct response from classmates or teachers, which is important for language development. Hence, feedback or response should not be underestimated. The feedbacks help the students to advance their use of language and correct their concepts for the use of words (Hattie & Timperley, 2007). A good feedback offers precise, productive and helpful guidance to help learners to know their strengths and areas that needs improvement. In short, the ability to use and present new words with confidence is an important part of language learning, which can be effectively developed through well-designed class activities. By encouraging the use of new words in interactive sessions and gatherings, teachers can significantly improve student language skills and confidence. These practices not only support the integration of words into positive words by students, but also create a more attractive and collaborative learning environment.

3. Personal Exercise This requires each student to deal with a designated subject or activity individually, which may include reading, writing, problem solving or other academic abilities.

C. Individual accountability

It is a fundamental principle that significantly influences the success of team outcomes. Each student's performance directly affects the group result, as the group's overall score is an aggregate of individual contributions (Slavin, 1995). This structure ensures that all members remain engaged and are motivated to contribute effectively to their team's learning process. The emphasis on individual accountability in STAD serves multiple educational purposes. It not only motivates students to take personal responsibility for their learning but also ensures that the success of the group does not depend solely on the efforts of one or two members (Johnson & Johnson, 2009). This is particularly important in educational settings where collaborative learning is used to improve educational outcomes and make an environment full of mutual support and shared goals. However, the usefulness of this system depends on each student's commitment to their responsibilities. If students neglect their individual roles, it can lead to medium group performance. The individual accountability feature of STAD addresses this by making each student's performance visible to other group members,

thereby increasing pressure to perform well, which can significantly boost motivation (Ginsburg-Block, Rohrbeck, & Fantuzzo, 2006).

Individual accountability in STAD promotes fairness and equality within the group. By assessing students on their involvement, the grades can be confirmed by the teachers if that are awarded accurately or not, showing the understanding of each student (Kagan, 1994). This method not only helps in correctly judging performance of the student but also in finding parts where they may require extra support. Practically, making sure that students take their specific responsibilities seriously needs continuous effort and support of each member. By providing clear expectations teachers can provide a sense of individual accountability, consistent feedback, and opportunities for assessment of self. Feedback is the main part because it guides students to understand how their individual efforts can have an impact on their team mates and help them know the worth of their role in the success of the group (Hattie & Timperley, 2007).

Individual accountability is the basis of STAD in cooperative learning, critical for making sure that each student remains involved and contributes efficiently for the team's success. The direct link between individual performance and team scores supports a system where personal responsibility not only improves learning outcomes but also creates an unbiased educational environment. To maximize the benefits of this approach, teachers need to continuously stress the importance of each student's participation and provide the necessary support to maintain high levels of individual and group motivation.

The key principle of this technique is that each team member is responsible for his/her learning and also has a responsibility to help the team members achieve their learning goals (Johnson & Johnson, 1989). The main objective of the STAD technique is to promote active learning and student engagement. It encourages students to take charge of their learning and support and motivate their team members. By working in teams, students can learn from each other, develop their social and cognitive skills, and practice their language skills in a safe and supportive environment. The STAD method is effective in improving the proficiency of ESL learners' language, mainly in the areas of vocabulary, conceptual reading as well as writing skills (Slavin 1995).

The methodology used in STAD gives several benefits, but implementing it can be very challenging. One of the bigger difficulties is handling the behavior of students during tasks in teamwork. Teachers need to make sure that all the students are actively

involved and everyone is contributing to the team's success. This involves planning carefully to make sure that equal opportunities are given to all the students to participate and contribute to the discussions within their group (Kagan, 1992). The STAD technique is an effective cooperative learning method that can positively improve the proficiency of language of ESL learners. By encouraging active learning, a positive attitude towards learning, and increased motivation, this method can create a helpful and attractive environment of learning which encourages collaboration, teamwork, and academic success.

Although it requires carefully planning how to face challenges such as the behavioral changes of students and participation for the successful accomplishment of the teaching method. English as Second Language (ESL) teachers can make a helpful and interesting learning atmosphere that helps in academic success for all students by using the method of STAD in the classroom. The teaching of English as a Second Language (ESL) has become an important part of education in many countries. Proficiency in language, particularly in vocabulary, determines the effectiveness of ESL teaching. The use of STAD has been found to be effective in refining vocabulary among ESL learners. Hence, the present study investigated the effect of STAD in improving vocabulary of ESL learners (Slavin, 1995).

1.7.2 Elaboration of STAD into its components

Student Teams Achievement Divisions (STAD) is a cooperative learning method established by Robert Slavin and his team in the late 1980s. It helps students to understand subjects by working in teams whereas also being responsible for their own learning. Each part of 'STAD' plays a significant role in making it effective, which creates a well-versed plan to keep students involved and advance their learning outcomes. Each aspect of STAD is systematically observed in the sections:

i. S.T: Student Teams

The basis of STAD is built around student teams . Students are divided into varied teams of four to five people, guaranteeing a balance of talents, genders, and ethnicities. The goal is for the classroom to reflect society as a whole while also encouraging inclusion and cooperation. Each team member contributes distinct talents and views, promoting peer learning and support. Slavin emphasises the necessity of team diversity in order to maximise mutual support and learning (Slavin, 1980).

ii. A: Achievement

Following the instructional stage, students return to their teams to work together on activities that reinforce newly learned ideas. This is when the cooperation function of STAD comes into action. Team members collaborate to solve issues, exchange ideas, and ensure that everyone understands the content. The cooperative nature of this stage is intended to create a supportive learning environment in which students feel appreciated and driven to contribute (Slavin & Cooper, 1999).

iii. D: Division of Achievement

STAD's last component is Division of Achievement, which focuses on individual accountability and assessment. After team activities, students are assessed individually using quizzes or examinations depending on the subject presented during the teaching phase. These exams are important because they hold each student accountable for their own learning. Individual evaluation scores are then used to evaluate team performance, which frequently contributes to team awards or recognition, connecting individual effort to team achievement (Slavin, 1986).

Critically regarded for its effectiveness in enhancing student's social interactions and academic achievement, the STAD method has been the subject of extensive research (Slavin, 1995). By promoting active participation and mutual assistance among students, this approach not only facilitates knowledge retention but also enhances comprehension.

1.8 Statement of The Problem

Vocabulary retention is considered a problem for non-native language speakers. Any second language speaker needs to communicate. English is used as an official language in Pakistan. So, govt. bodies as well as NGOs spend a huge amount in academia for learning English as English as a Second Language (ESL) and want the learners to achieve fluency in the language. The present research aims to investigate the effectiveness of STAD in the retention of vocabulary among Pakistani ESL learners. The currently implemented curriculum and teaching techniques for English language learning in Pakistan are not practiced with true letter and spirit. Resultantly, the learners are reluctant to use words without context because of vocabulary retention problems, although they are aware of the basic syntax of English. It affects the language fluency of the learners. Hence, the present study aims to address the mentioned problem by

exploring the effectiveness of the STAD technique in vocabulary retention among Pakistani ESL learners at the intermediate level.

1.9 Hypothesis

Student Team Achievement Division (STAD) has a positive impact on vocabulary building and retention among Pakistani ESL learners at the intermediate level (HSSC/HSC).

1.10 Research Objectives

- To determine the impact of the STAD approach on vocabulary retention among Pakistani ESL learners
- To compare the effectiveness of STAD and Traditional methods for vocabulary building among Pakistani ESL learners.
- To explore the role of STAD in Language Learning.

1.11 Research Questions

1. What is the effectiveness of STAD in vocabulary retention among Pakistani ESL learners of Grade 11th Multan, Pakistan?
2. What are the factors that influence the effectiveness of STAD in vocabulary learning in comparison to Traditional methods among Pakistani ESL learners?
3. How can STAD be incorporated with the current English language curriculum in Pakistan to improve vocabulary learning among ESL learners?

1.12 Significance & Rationale of The Study

The study's significance lies in providing a better understanding of the effectiveness of STAD as a cooperative learning technique in vocabulary building and retention among High School Pakistani ESL learners.

The Learning Outcomes denoted by LO1, LO2 and LO3 were analyzed by the researcher.

i. Vocabulary Retention (LO1)

Vocabulary retention is important as it empowers learners to recall words effectively over time. Strategies like spaced repetition, mnemonic devices, and contextual learning help set in vocabulary in memory, making recalling easier and more reliable. Repetition confirms that vocabulary is revisited at increasing intervals, thereby strengthening the words in long-term memory. Mnemonic devices create memorable links to the words, and learning vocabulary with a context offers meaningful connections that makes the information stay.

ii. Vocabulary Comprehension (LO2)

Comprehension of vocabulary is more about understanding the tones of each of the word's meanings and their correct use in different kind of situations. It also includes understanding several definitions, idiomatic use and in collocations that makes language specific and rich. By becoming skilled in comprehension of vocabulary, learners can channelize complex texts and communicate their thoughts with much more and depth and clarity. Knowing the relations and meanings of words enhances both written and verbal communication, that allows more improved and cultured interactions.

iii. The Use of Synonymous Vocabulary (LO3)

The use of synonymous vocabulary gives rise to proficiency in language, that speakers and writers able to express themselves more accurately and avoid mistakes. Use of synonyms efficiently is important oral and written forms of communication, that maintains listener's or reader's interest and conveys messages with precision. Developing a rich bank of synonymous words also supports in smoother understanding while reading, as it helps in understanding texts with different type of vocabulary without constantly using a dictionary. Writers gets good benefits from this skill, as it allows them to produce texts that are engaging and non-repetitive, showing a deep understanding of language.

The findings of the study can be used for the development of strategies for effective vocabulary building and teaching methods for English language learners in Pakistan. The study will also contribute to the broader field of language education by

providing insights into the effectiveness of cooperative learning techniques in language learning.

1.13 Delimitations of The Study

This study is delimited to Pakistani ESL learners of Govt. Graduate College of Science, Multan. The study was only focused on the effectiveness of STAD in comparison to traditional methods in vocabulary learning.

1.14 Summary

This chapter provided a comprehensive overview of the study, highlighting the importance of effective vocabulary retention for high school students learning English as a Second Language in Pakistan. It began by discussing vocabulary development and its background, setting the study's foundation. The chapter then examined the stages of vocabulary acquisition, including recognizing new words, using them in communication, and understanding vocabulary frequencies (high, mid, and low). It also addressed vocabulary retention, building, and interactive learning methods. Traditional teaching methods were compared with interactive approaches like STAD. Additionally, the chapter outlined the problem statement, research objectives, and research questions, and discussed the study's delimitation to clarify its scope and focus.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

In this chapter, a comprehensive review of existing literature is presented. The researcher discussed relevant theories and models that underpin the research and summarized previous research studies in the works already done section, highlighting key findings and methodologies used, the theoretical framework is based on Word Improvement by Kant (2001), Rules for Vocabulary Teaching and Building, Social Constructivism, and Cooperative Learning Theories. This framework is used to analyze the concepts of vocabulary improvement, mastery, and the principles of teaching and learning vocabulary, highlighting the importance of collaboration and communication in the learning process. Explaining their relevance to the study. Furthermore, the researcher identified a gap in the current literature, justifying the need for the present study and explaining how it aimed to fill the gap.

2.2 Theoretical Framework

2.2.1 Word Improvement by Kant 2001

The concepts of improvement, vocabulary, vocabulary mastery, and the principles of teaching and learning vocabulary are discussed. Kant (2001) argues that three senses of the word improvement are identified: the act to enhance, a better state than before, or a change towards the better. Improvement is defined as the good results attained by students in vocabulary mastery by using real objects such as media. According to Samsuddin (2019), teachers are those who are in charge of carrying out instructional tasks in classrooms, and their major responsibility is to educate and instruct learners as effectively as they can, in order to maximize the achievement of learning objectives.

A speaker, writer, or listener's vocabulary is described as the part of the language that contains all the knowledge about the meaning and usage of words in a language (Christopher 1999). (John 2000) the goal of a vocabulary test is to see whether students can match each word with a synonym, a definition from a dictionary, or an analogous word in their native tongue. Vocabulary knowledge requires understanding the meanings of words. Knowing the definitions of words and being able to utilize them

in sentences are two components of vocabulary learning. When a person can actively use the language in speaking and writing, it is said that they have high language skills. Writing abilities are useful for students since they should be able to compose an academic paper by the time they complete their studies, particularly when writing a thesis (Hafniati 2020). Vocabulary Mastery is the ability of students to acknowledge and comprehend the number of words in total that are presented in a vocabulary test. James (1981) states that mastery can be defined in terms of learning objectives, and each student is expected to achieve a specific level of mastery in an educational objective. Vocabulary refers to a set of words or phrases of the language's technical field used or a bunch of words used by or known to a specific person or group of people (Ray 1988).

2.2.2. Rules for Vocabulary Teaching and Building

Wallace (1996) lists nine rules for vocabulary teaching and building. The first rule is about aims. The teacher must be clear about these aims, including what things are on the list and what the learner should be able to perform. The second principle is quantity, which requires the teacher to take into account the amount of vocabulary that has to be acquired and choose words that are appropriate for the student's competence levels. The third principle is need, where the teacher creates a situation and communicates to get the needed words. After that, the vocabulary is put forward as a response to the learner's needs as well as interests, and after questioning the participants, they are more motivated to remember it. The fourth principle is frequent exposure and repetition. A certain amount of repetition is needed until there is evidence that the students have learned the target words, and vocabulary must be used as often as possible.

The fifth rule is situational presentation. Words must be used in a way that is appropriate for the moment and represents the speaker's command to whom, where, and how to address. It seems logical that students should learn words in contexts where and with whom they are suitable to use them. Meaningful presentation is the sixth rule. The meaning of the word must be understood by the learner in a clear and precise manner. This demands the word to be used in a manner that makes its meaning or context completely visible with no ambiguity.

Presentation in context is the seventh rule. Words rarely appear alone, and the context in which they do can have an impact on how they are understood. The student must be aware of the typical contexts in which a word appears because these can affect how a word is understood.

The eighth rule is acquiring vocabulary in both the target and mother tongue. Learning new words in the native language of a person and a in a foreign language have different ways of accomplishment. While learning vocabulary in the mother tongue, it is often through exposure to the language in everyday situations. In comparison, when learning vocabulary in the target language, learners must actively seek out new words and make a mindful effort to learn and memorize them. It is important for learners to make connections between the two languages and to use their mother tongue to support their learning of the target language. For example, learners can use translation to help them understand the meaning of new words, or they can create flashcards that show the words in both languages.

Procedures for Making Implications in Vocabulary Learning is the ninth rule that says that it is difficult for a learner to become fluent in a foreign or second language. He needs specific instruction on different interpretations of words. He may look it up in a dictionary. Without interpreting all of the meanings he may comprehend the words out of context or assuming the meanings from context. The concept of teaching and learning vocabulary is mandatory to make the contents more entertaining, attractive, and demanding for the students.

2.2.3 Social Constructivism and Cooperative Learning Theories

Social constructivism suggests that knowledge is actively constructed by the learners over social interactions and experiences (Vygotsky, 1978). According to this theory, learners actively make meaning through their interactions with their group mates, their teacher, and their environment. This focuses on the importance of collaboration and communication in the learning process.

Moreover, Cooperative learning is a teaching methodology that uses small-group interaction, individual accountability, and positive interconnection between the learners (Johnson & Johnson, 1999). Students form small groups to accomplish a common objective. Every student is in charge of their learning and contributes to the

team member's learning. This approach promotes the growth of social abilities, teamwork, and academic achievement.

Social constructivism and cooperative learning theories help choose teaching methods and interpret the results. The STAD technique has been used to provide a structured approach to teaching vocabulary that deals with social interaction, collaboration, and accountability among learners. By focusing on developing vocabulary knowledge through teamwork, this study aims to provide insights into how ESL learners can use a cooperative learning strategy in language teaching.

2.3 Works Already Done

Serezli, S.E. (2022) conducted a study to evaluate the effectiveness of collaborative learning strategies on students' writing motivation, written expression, and self-regulation while writing. The study used a pre-test and post-test control group design from 2017 to 2018, including 88 students in total divided into two experimental groups and one control group. The first experimental group used the Co-Op Co-Op method, a collective method that focuses on peer support and combined writing tasks. The second experimental group used STAD (Student Teams-Achievement Divisions), in which the students performed tasks in small groups to enhance their writing skills. The control group was taught using traditional Turkish Lesson Teaching Programme (MEB, 2018), categorized as teacher led teaching without teamwork. Data was collected using many instruments: demographic information over Personal Information forms, writing quality, self-regulation abilities measured by the Writing Oriented Self-Regulation Scale, and writing motivation evaluated using the Writing Motivation Scale. The analysis was made with the use of SPSS. The study found noteworthy areas of improvement in self-regulation in students in the experimental groups as in comparison to the control group, signifying that collaborative learning atmospheres improve students' capability to accomplish and control their writing. However, the experimental and control groups had no statistically significant differences in the post-test mean scores for written expression abilities and writing motivation. This suggests that while collaborative strategies like STAD and Co-Op Co-Op have a positive influence on self-regulation, they do not necessarily improve writing capabilities or motivation. These findings give valuable understandings for teachers and curriculum developers about the success of collaborative learning approaches and shows the areas that need further improvement. It is important to understand the impacts of these methods to develop

pedagogical approaches in order to improve academic skills and critical self-control and self-motivation of students.

Ghufron. S, et.al (2022) conducted a research to evaluate the impact of cooperative learning of STAD (Student Teams-Achievement Divisions), improved by a particular learning instrument, on students' learning outcomes, which point towards their critical thinking abilities. This quasi-experimental study used a 2x3 factor design to expansively examine the influence of organized team learning on critical thinking in cognitive, psychomotor skills, and affect. The study used different data collection methods, including thorough interviews, documentary evidence, multiple-choice examinations, and comprehensive descriptions, to assure a complete examination of the performance of students. With the help these procedures, an in-depth examination of the learning processes and outcomes was attained, allowing a more complex assessment of the effects of such strategies. SPSS16 was used for testing the hypothesis, applying a two-way ANOVA with a fixed significance level of 5%. The results confirmed noteworthy improvements in cognition, psychomotor abilities, and affective behaviours, attributed to the STAD's cooperative learning framework. Particularly the cognitive area achieved a score of 0.314, which is not statistically significant, but suggests presence of some influence. Still, the affective (0.038) and psychomotor (0.032) scores fell below the significance level of 0.05, suggestive of statistically significant improvements. These results prove that cooperative learning of STAD suggestively improves critical thinking abilities in the psychomotor and affective areas, exclusively with the support of an effective learning instrument. The psychomotor enhancements under observation specify that students have established a better capacity to perform tasks that require the harmonization of cognitive processing with physical movement. The results in the affective area also mentions an improvement in attitudes as well as investment of emotions in learning, both of which are central for motivation and enhancing already acquired knowledge. Additionally, the study discovered that the academic abilities of the members had no considerable influence on the results, signifying that cooperative learning of STAD is helpful for students with different academic experiences. The research presents influential results that cooperative learning like STAD, when accompanied by a supportive learning assistance, is an effective approach for improving students' critical psychomotor and affective results and cognitive abilities.

Rafique et. al (2021) carried out a study on the effectiveness of cooperative learning on Vocabulary development of Intermediate Students of Pakistan. The research was done to explore how successful learning with the help of teamwork was working in developing vocabulary in intermediate students. 80 intermediate students from a government college were collected and a quantitative research design was used along with purposive sampling. Data from pre-tests and post-tests was collected to evaluate the useability of cooperative learning. The findings uncovered that collaborative learning environment progressed in growth of word bank and also the students performed better after using it.

Ariffin (2019) presented a study on the accomplishment of student collaboration in improving the development of vocabulary of ESL learners in Malaysia. The research aimed to assess whether students' collaboration helped in improving their vocabulary or not and to what degree. A mixed method approach was used to collect data from 3 male and 16 female intermediate ESL learners from different countries such as Bosnia, Thailand, Yemen, Iraq, Vietnam, Malaysia, and the Philippines. The results of the pre and post tests were evaluated with the use of t-test, which showed that students positively improved their knowledge of vocabulary after studying through collaboration. In addition, teamwork helped students to enhance self-confidence, take part in their education, and encourage a spirit of teamwork. The research showed that teamwork and collaboration could be important for ESL teachers to enhance vocabulary development of their students.

Tiwow.D,et al (2019) conducted a study to find out the comparative usefulness of STAD and traditionally used teaching methods to enhance students' understanding of mathematics. In addition, the effect of these instructional methods on students' interest in mathematics was observed. A quasi-experimental design was used for this purpose referred to as "Treatment by Level," the study proposed great insights into the comparative qualities of present-day teaching methods as compared to more traditional methods. As a part of cooperative learning, STAD stresses on collaboration of student in small groups to solve problems and gain an understanding of them. This approach is different from the traditional one, in which teaching is mainly fixed towards the teacher and have less importance on teamwork even though supporting individual learning. The main purpose of the research was to determine whether the STAD model, in comparison to the classical model, could help to improve student involvement and interest towards

maths and encourage a more thoughtful understanding of the subject. Different instruments were used to collect the data for this study, to measure understanding of maths concepts and interest. The assessment methods included standardized tests to find out students' comprehension quantitatively and surveys were conducted to find out their interest levels. After the analysis of the data, it was revealed that students taught using the STAD technique displayed a noticeably more inclusive understanding of concepts than those taught with traditional teaching methods. This was visible through the improved test scores and boosted logical skills when solving maths problems. Moreover, the research revealed that employing STAD suggestively improved students' aptitude towards maths. The improved student engagement and fulfilment throughout the learning sessions had been credited to the interactive features of the STAD approach. The growth in interest is of greater importance. Positive attitudes towards a topic or subject are an important factor in improved academic performance. The suggestions for curriculum developers and teachers are substantial with these findings. The findings support the application of cooperative learning techniques, like STAD, in mathematics education, representative that these models not only improve students' cognitive skills but also promote a pleasant and interactive learning environment. This has the probability of a lasting interest for mathematics, a discipline that is commonly viewed as difficult by learners. The findings of this study emphasised the multiple advantages that STAD offers as it improved students' mathematical concepts and gave birth to a sense of curiosity in the subject. The benefits shows the conventional pedagogical techniques must be reconsidered and teachers must anticipate alternate methods that mainly focuses on collaboration and engagement of students, mostly in fields that rely mostly on problem-solving and critical thinking abilities.

Faramarz (2017) examined the impact of the Student Teams Achievement Division (STAD) approach on the reading comprehension of Iranian primary EFL learners. A total of 51 male EFL young learners at the elementary level at a well-known language institute in Tehran, Iran, were divided into control and experimental groups after taking the YLE Flyers test. A 50-question pretest was administered to ensure their reading comprehension levels were comparable. In the experimental group, the therapy consisted of 13 sessions of organising students and testing their reading ability using STAD approach criteria. The comparison of student's performance in the posttest using an independent samples t-test followed by a paired samples t-test on both exams

indicated that the experimental group made considerably more progress in reading comprehension than the control group. The study's findings can help teachers become more aware of using this strategy as a manifestation of Zone of Proximal Development ZPD (Vygotsky 1978) and in managing overcrowded diverse classes where students are not often instructed to finish work in groups.

Fitri.R & Alfianika, (2017) conducted a study investigating how the Student Teams-Achievement Divisions (STAD) approach and vocabulary proficiency affect students' reading comprehension skills. This quantitative study used a quasi-experimental design with a 2x2 factorial setup and simple random sampling to pick participants. Data was collected by conducting objective assessments. The results showed a significant contrast in reading comprehension between students taught using the STAD approach. Those taught traditionally and a significant difference in reading comprehension among students with high vocabulary levels taught through the STAD method compared to those with similar vocabulary levels taught conventionally as well as a difference in reading comprehension among students with limited vocabulary when taught with the STAD method versus those receiving traditional instruction; followed by a combined impact of using the STAD method and vocabulary proficiency on improving student's reading comprehension. The study found that using the STAD methodology instead of standard teaching techniques led to noticeable variations in reading comprehension among students in the Indonesian Language and Literature Education Programme at STKIP PGRI West Sumatra. Students with advanced vocabulary skills showed varied reading comprehension results when instructed using the STAD approach instead of traditional teaching methods. Thirdly, students with lower vocabulary displayed varying reading comprehension abilities when instructed through STAD vs traditional methods. Finally, STAD paired with vocabulary mastery positively enhanced reading comprehension in students in the specified educational programme.

Ishtiaq et al. (2017) investigated the implementation of Student Teams Achievement Divisions (STAD) across subject areas and sociocultural contexts. The study was conducted in Unaizah Community College, Saudi Arabia, with experimentation on the control and experimental group through a 2000-word vocabulary test. STAD-based instruction was implemented in the experimental group, whereas the control group received instruction through the typical whole-class

instruction. A pre-test was given to both groups before the two-week treatment and a post-test after the experiment. The findings revealed a significant difference in the experimental group over the control group ($p=0.002$ 0.05). Finally, the study stressed that the application of STAD as a cooperative learning approach improved vocabulary learning of EFL adult learners in Saudi Arabia.

Wardani (2016) conducted a study based on Classroom Action Research which provided in-dept investigation of how tenth grade student's speaking abilities are improved by the Student Teams-Achievement Divisions (STAD) technique. The study was separated into four phases: planning, acting, observing, and reflecting, all of which are essential components of the action research technique planned to promote constant improvement in teaching. Planning phase included developing necessary action and resources as well as the equipment needed for the study activities. This formed the foundation for the effectiveness of the correct use of the STAD technique, where resources matched objectives of the study. Acting stage showed the real use of the STAD technique, making teams of students. STAD creates an environment in which interpersonal relationship and cooperation are given more importance to solve problems. Teamwork allows students to interact more expressively with the language through activities that mimic real conversations, increasing the validity of learning. The study afterwards used observation to track student relationships and how group learning worked. This stage is important to understand how successful the STAD is in promoting verbal communication between students. Observations focused on how students used the language skills they learnt and noted an increase in confidence and ability to communicate effectively. The third stage is reflection, which involves a detailed review of the results. This reflective practice helps to instantly evaluate the results of the STAD approach and make decisions about its effectiveness in improving students' speaking skills. It also provides possibility for identifying any areas that needs improvement or further intervention, showing the constant development of action research. The results of the study revealed that the STAD method had a significant impact on students' speaking and verbal capacity. Getting help from team members enabled the acquisition of communication skills, which was one of the main findings. Team members can help each other overcome challenges and mistakes with the effective use of the target language as a medium for communication and learning. This approach not only helps

solve problems but also creates an environment that inspires learning and motivation, which is compulsory for language acquisition.

Fekri (2016) explained the influence of cooperative and competitive language learning strategies in the Iran. The results uncovered that the Iranian intermediate English student's development of vocabulary improved positively after using competitive and cooperative learning strategies. In comparison, independent t-tests showed that the group using the cooperative learning strategy scored much more higher than the group using the competitive approach.

Al-Zu'bi (2016) investigated the influence of STAD on students of English Reading Proficiency from Jordanian University. The study aimed to investigate the impact of success in high, low, and average achieving students on Reading Comprehension students by implementing the STAD technique opposed to traditional strategies. 41 EFL language learners took part in the programme at Ajloun College. Participants in the research were separated into two groups. STAD was implemented to the experimental group, whereas the control group was taught using the conventional method. The findings revealed that STAD had significant impacts statistically on Reading Comprehension for high as well as on average achieving students, but not for low achieving students.

D.Glomo-Narzoles (2015) investigated the impact of Student Team Achievement Division (STAD) in Bahrain on the academic performance of English as a Foreign Language (EFL) learners in Student Team Achievement Division (STAD) and the effect it had on the academic capabilities of learners of EFL. 54 students enrolled in English Communication Skills 2 were included in the study. STAD was employed in the experimental group, whereas traditional teaching methods were used in the control group. The individual's baseline knowledge schema was determined using pre-test mean scores. After completing the assigned topics with STAD, the students were given a post-test. Based on the findings, Students exposed to STAD fared better academically in the English Communication Skills 2 course. The outcomes of the post-test mean scores revealed that the STAD technique significantly impacted the experimental group's academic achievement.

Nikou et.al (2014) conducted a study to evaluate the effectiveness of the Student Team-Achievement Division (STAD) technique with the Grammar Translation Method

on 80 intermediate-level EFL students in Urmia Iran. A two-group pretest post-test design was utilized to evaluate the effectiveness of the Student Team-Achievement Division (STAD) technique combined with the Grammar Translation Method on 80 intermediate-level EFL students. 48 females and 32 males were selected from the Jihad Daneshgahi Language Institute in Urmia, Iran and formed an experimental group and a control group depending on their placement test results. The study's findings revealed that the experimental group exceeded the control group on the achievement test at a significance level of 0.05. This indicated that the STAD technique was an effective approach for enhancing learners' language proficiency. The study also highlighted no gender differences in language achievement between the two groups with applying the STAD technique.

Zarei (2012) explored the influence of cooperative learning models, especially the 'Student Teams-Achievement Division's (STAD) and 'Cooperative Integrated Reading and Composition' (CIRC), on the English language acquisition of Iranian EFL learners. Based on the theoretical foundations provided by the major works of Kagan (1994) and Slavin (1995), the analysis shows the potential of these models to promote reading comprehension and vocabulary learning. Despite the benefits of cooperative learning practices for academic success, psychological well-being, and social engagement, research on their specific impacts on Iranian EFL learners has been limited. The study was conducted at the National Iran English Language (NIEL) Institute in Takestan, which rigorously assesses the efficiency of STAD and CIRC using a design comprising experimental and control groups and statistical analysis (one-way ANOVA) 132 female English language learners at the National Institute of English Language (NIEL) in Takestan, Iran, 72 individuals at elementary level (in three groups of 24 members each) and three groups of participants (with 20 members each) at advanced level. The age of the participants ranged from 15 to 25. The research findings notably indicate the CIRC model's usefulness in enhancing reading and vocabulary abilities, particularly among elementary-level learners. This information is helpful for instructors seeking solutions that meet the changing needs of EFL beginners. Furthermore, the research stresses the relevance of cooperative learning in generating supportive educational settings favourable to language acquisition. The study supports using cooperative learning strategies in EFL contexts by providing empirical data on

the subject. It sets an example for future inquiries into their long-term effects and applicability across various cultural and educational backgrounds.

Alijanian (2012) analyzed the effect of the Student Teams Achievement Division (STAD) method on third-grade junior high school students' English achievement in Iran. The study involved 60 students from two classes, one experimental and the other control group. Before the treatment, both groups had spent one and a half months studying lessons 1 and 2 from the third-grade junior high school English book. For the next two months, the experimental group's teacher employed the STAD methodology with the help of the researcher, whereas the control group's instructor used standard teaching techniques. During this time, lessons 3 and 4 were taught as extra lessons. The research materials included two English achievement tests developed by the teacher and a questionnaire designed to measure students' learning style preferences. Both paired and independent t-tests were used to analyse the data. The results showed that the experimental group outperformed the control group regarding English achievement, confirming the effectiveness of the STAD technique in improving students' language abilities.

Wyk (2012) implied a quasi-experimental method to determine the success of Student Teams-Achievement Divisions (STAD) of Students in grade 10 in Free State secondary schools. Data were obtained from 229 grade 10 Economics students and eight teachers from secondary schools in the Free State with the help of the mean scores of a pre-test and a post-test. This study aimed to investigate the possible improvements in student outcomes resulting from this collaborative learning technique, focusing on their achievement, attitudes, and motivational levels in economics education. The motivation factor was carefully evaluated using five dependent variables, each representing a separate component of the student's motivation. These included achievement goal orientation, which reflects the desires of learners to achieve specific academic goals; self-efficacy, which represents student's confidence in their own abilities to succeed in academic tasks; motivational factors for economics, which points out student's natural interest and enjoyment of the subject; and cognitive processing, which refers to the depth and quality of student's mental involvement with learning materials. The investigation was broken down into five thematic categories, each representing an important aspect of economic literacy. The themes covered the curriculum statement, objectives, fundamental economic principles, microeconomics,

economic development, and entrepreneurship. This thematic approach allowed a more detailed examination of how STAD impacted students' comprehension and retention of complicated economic theories and practices. The study demonstrated that implementing STAD substantially impacted students, not just in terms of improved economic literacy, but also in creating more positive attitudes towards learning and increased motivation. The statistics revealed that STAD immediately impacted students' cognitive and empathetic engagement with the subject matter. These students demonstrated a greater excitement for studying, increased self-confidence, and a willingness to engage with difficult economic ideas. This study was especially essential in light of continuing discussions regarding effective teaching tactics in economics education. The study presents solid evidence in favour of adding team-based, collaborative approaches into the economics curriculum, proving the favourable effects of cooperative learning environments on student achievements. Such findings are helpful for educators who want to implement teaching approaches that improve academic achievement and provide a supportive and stimulating learning environment.

Majoka (2011) conducted a study to examine the influence of cooperative learning and standard teaching approaches on the academic success of 7th grade social studies students. The study was conducted in public schools in the Mansehra area of Pakistan, with 100 students assigned evenly into two groups i.e., a control group and an experimental group based on their pre-test scores. The experimental group got a series of 15 lessons using the Student Teams-Achievement Division (STAD) model, whereas the control group received the same type of curriculum using traditional approaches. The goal was to directly evaluate the effectiveness of interactive, team-based learning versus standard lecture-based instruction. After receiving the treatment, data analysis revealed that the experimental group scored much better than the control group in the post-test. This confirmed that the cooperative learning strategy not only enhanced students' understanding of the subject, but also their retention capability and use of the information more effectively than traditional teaching practices. Moreover, the study revealed that cooperative learning was operative at all levels of academic ability in the seventh grade. High-achievers, average-achievers, and low-achievers all performed better academically under STAD than those who went through the traditional way of teaching. It shows that techniques such as STAD are compliant and may be used efficiently to improve

students' performance across a wide range. The conclusions suggested the extensive use of such learning methodologies in schools' curriculum, mainly in departments such as social studies, where understanding difficult ideas and engaging with information is important. The findings prove STAD's potential to build more effective, enjoyable learning atmospheres for elementary level students.

Kim and McDonough (2011) studied the impact of pre-task modelling on student interaction during group projects. Their main goal was to find out if showing examples of good teamwork to students before the assignment may enhance their performance, interaction quality. The study carefully divided participants into two groups to evaluate this modeling type's impact. Before starting, one set of students watched filmed models demonstrating effective teamwork techniques. Pre-task modelling was meant to act as a manual or blueprint for the students, representing group behaviors, effective problem-solving approaches, and communication strategies. By observing these models, students in this group could see and accept collective behaviors and processes that potentially resulted in positive outcomes. In contrast, no pre-task modelling was specified to the second group. Without having previously seen modelled interactions, these students relied only on their pre-existing skills and possibly innate collective behaviors when completing the grouped activities. Because of this configuration, the study had a neutral control group, which made it possible for the researchers to compare the results between the groups that benefited from observational learning and those that did not. The study's conclusions were extremely informative. The group with access to the pre-task recorded models performed noticeably better when finishing the tasks. They not only accomplished the task objectives more successfully, but they also displayed more fruitful teamwork. Compared to the group without pre-task modelling, this one coordinated their efforts more easily, participated in more positive interactions, and showed higher levels of mutual support. The improved results can be credited to various benefits provided by pre-task modelling. First, giving specific instances of productive teamwork, probably assisted in lowering tension and apprehension around the assignment. Secondly, it provided students with practical approaches to problem-solving and communication that they might adopt, enhancing their ability to collaborate effectively. Third, witnessing successful teamwork in action would have also encouraged students to approach teamwork with greater enthusiasm and cooperation. The research emphasizes how important pre-task

modelling is for promoting cooperative learning. Teachers can improve the quality of interactions during collaborative tasks and the success rate of such assignments by giving students explicit and practical examples of how to work together. According to the study, pre-task modelling can effectively enhance academic performance and develop critical interpersonal skills in collaborative learning environments.

Khan (2011) investigated the impact of a cooperative learning approach, Student's Team Achievement Division (STAD), versus the traditional lecture method in teaching chemistry to grade-12 students in Khyber Pakhtunkhwa, Pakistan. A total of 30 students from a government higher secondary school were randomly assigned to either the control or experimental group. The experimental design of posttest-only control group design was used in the study. The control group was taught using the traditional lecture method, while the experimental group was taught using the STAD. Only the experimental treatment was given by STAD. Both groups were given a test designed by the study, administered, consisting of multiple-choice, short, and long questions. The posttest was evaluated using a student t-test of non-dependent samples. The results showed no significant difference in academic achievement between the two groups. It suggested that cooperative learning techniques like STAD promote critical thinking, problem-solving behavior, and positive attitudes and values. While this study did not find a significant difference between the two teaching methods, cooperative learning should be utilized in teaching chemistry to grade-12 students regardless of their academic level.

Novitarini (2009) conducted a study on using the STAD technique to improve the students' skill in writing descriptive text. The study aimed to determine the success of employing the STAD approach to improve the descriptive writing abilities of eighth-grade students. The study specifically seeks to answer the issue of how the STAD approach may be used effectively to improve students' descriptive text writing skills. The study applies action research with subjects from the entire class of VIII E, a total of 48 students, 12 male and 36 female students SMP N 1 Kesesi Pekalongan in the academic year 2008/2009. Writing tests and questionnaires were used to collect data in four activities: A Pre-questionnaire, a pre-test, two treatment cycles and a post-test; the result showed that the student's accomplishment towards STAD proved to have a visible growth from the pre-test (56.26%) to the post-test (74.35%), an increase of 18.09 %. Additionally, while working in groups using the STAD approach, the students

reported feeling happier and more appreciated than their classmates. The study finds that the STAD approach is an excellent tool for developing students' descriptive text-writing skills and can boost their involvement in the learning process based on these findings.

Çokparlamış (2010) conducted a study to examine the effects of cooperative learning on fifth-grade students' achievement of curriculum objectives and their evaluations of the classroom environment. A control group and experimental group were a part of this study, where the experimental group was involved in cooperative learning activities. A detailed examination of the pre-test and post-test results discovered a visible improvement in the performance of the experimental group. This suggested that the students in this group showed a better understanding and use of the material they had learnt than their class fellows in the control group. Furthermore, the study combined qualitative data from student diaries, which provided an understanding of learners' subjective experiences in addition to the quantitative test scores.. The entries showed that the cooperative learning approach was very helpful. The students conveyed a liking for this method as compared to traditional classroom environments. The study collectively talks about the benefits of cooperative learning as compared to traditionally used teaching methods, especially about the building of vocabulary and achievement of chosen educational goals. Cooperative learning creates a supportive learning community, enables communication among classmates, and promotes active involvement; these factors contribute to more effective and enjoyable learning experiences. In addition, the favorable responses from students regarding cooperative learning indicate that this not only improves academic achievement but also inspires student motivation, which is important for learning and growth for a long time. The use of these findings for educational practice are important, mainly about the development of curriculum and teaching methodologies that seek to optimize student engagement and learning results. By incorporating cooperative learning strategies, teachers can create learning environments with increased interactivity, student-centeredness, and support. Environments like this create the development of academic abilities and help students' overall interest in the educational journey.

2.4 Research Gap

The present research is different from the researches as mentioned earlier as it provides valuable information on the effect of STAD in teaching vocabulary to ESL

learners of the intermediate level. Moreover, the present study employed a quantitative research approach to determine the learner's vocabulary knowledge before and after the treatment. This study contributes to the improvement of language teaching and learning in the ESL context. The study's findings can be utilized to inform curriculum developers, policymakers, and language teachers regarding the use of STAD in language instruction. To the best of the researcher's knowledge, only a few studies have likely been done on the effect of Interactive Vocabulary Retention through STAD on vocabulary building among Pakistani High School ESL learners of South Punjab.

2.5 Summary

In this chapter, a comprehensive review of existing literature was presented. The researcher discussed relevant theories and models that underpin the research and summarized previous research studies in the "Works Already Done" section, highlighting key findings and methodologies used. The theoretical framework was based on Word Improvement by Kant (2001), Rules for Vocabulary Teaching and Building, Social Constructivism, and Cooperative Learning Theories. This framework was used to analyze the concepts of vocabulary improvement, mastery, and the principles of teaching and learning vocabulary, emphasizing the importance of collaboration and communication in the learning process. Furthermore, the researcher identified a gap in the current literature, justifying the need for the present study and explaining how it aimed to fill that gap.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

This chapter expansively includes all the important features of the research process, offering a comprehensive reasoning for the methodology chosen. It explains more in depth on the research design used to answer the research questions, making sure that there is a strong connection between the objectives of the study and the used methods. The study works on the theoretical framework, especially using a quasi-experimental design to assess the effectiveness of the Student Teams Achievement Divisions (STAD) in improving vocabulary retention among English as a Second Language (ESL) learners. This quasi-experimental study is built around pre-test and post-test assessments and have used multiple-choice questions (MCQs), the results between a control group and an experimental group are compared. The control group works as a baseline to measure the natural development of vocabulary retention using traditional teaching methods, whereas the experimental group is taught through STAD, allowing for a comparative analysis of its impact. By administering tests before and after the 6-week intervention, this study aims to quantify the changes in vocabulary retention with the use of STAD. This method confirms a systematic assessment of the effectiveness of the intervention, that provides substantial evidence to approve or disapprove its benefits. The comprehensive explanation of the research design in this chapter highlights the study's use of methodology and thoughtful consideration given to answer the research questions, eventually contributing to the field of ESL education by exploring advanced teaching strategies.

3.2 Research Design

This study incorporated quasi-experimental research design to examine the effectiveness of the STAD method in enhancing vocabulary retention of ESL learners. This was done using a vocabulary test based on MCQs. Pre and post-tests were administered to know the learner's achievement as a result of using STAD. The study was conducted in a selected High School ESL classroom in Govt. Graduate College of Science Multan, Pakistan. The sample comprised 30 ESL learners of 11th grade, and their age limit ranged from 19 to 22 years. The study was conducted in two phases. In

the first phase, the pre-test using vocabulary MCQs was administered to assess the learner's vocabulary level. The learners were then divided into six teams comprising 5 participants each. The researcher taught the experimental group using the STAD technique. Whereas, the control group was taught as per traditional techniques. Furthermore, the researcher conducted a post-test of both groups i.e., experimental and control group after six weeks of application of the STAD technique and both the results of the pre and post-test were evaluated of each group.

3.3 Quasi Experimental Study

A quasi-experimental research design uses random assignment to establish the cause and effect of an intervention upon an outcome. Participants are then grouped based on existing conditions or other non-random criteria. However, often conducted with the addition of control groups for comparative purposes, there is a tendency toward baseline differences between groups, implying the potential for increased biases. Quasi-experimental research designs are often used when a random assignment is neither possible nor practical.

3.4 Sampling Technique

The researcher employed criterion sampling for the collection of the data. The reason for choosing this sampling technique is selected to include participants who matched certain pre-test score requirements, enabling a targeted analysis for this study from Govt. Graduate College of Science Multan, Pakistan, where the study was conducted.

3.4.1 Inclusion Criteria

The population was divided based on the two sections i.e., A1 and A2 of 11th Grade. Section A1 was taken as the Control Group, and Section A2 as the Experimental Group. To create the experimental group as per the criteria of STAD 30 participants were divided into 6 sub-groups, and each Sub-group consisted of 5 participants. These subgroups were heterogeneous groups containing at least two participants scoring up to 33% marks and one participant scoring up to 80% marks in the pre-test. The control group included 30 Grade 11th students from Section A1. The Experimental group included 30 Grade 11 students from section A2. This helped in fulfilling the criteria of STAD.

3.5 Data Collection

The data for the present study was collected using the Pre and post-tests: The pre and post-test were conducted to measure the learner's vocabulary retention. The pre-test was conducted before the treatment was administered, while the post-test was conducted after the treatment.

3.6 Instruments

The data in the form of results from the student's tests was collected and analyzed to determine the success of the STAD technique. The test consisted of 50 multiple-choice questionnaires based on vocabulary used in their course outline taught at intermediate level. Students were given a pre-test to determine their past knowledge. Further after the treatment, the post-test was administered in the classroom after implementing the (STAD) technique. The Student Team Achievement Division was built around five modules: teamwork, quizzes, class presentations, team recognition, and personal growth.

3.7 Pre-Test Administration

Before the implementation of the STAD method, a vocabulary pre-test was administered to all participants. Before the implementation of the STAD method, a vocabulary pre-test was administered to all participants. The pre-test was intended to measure the students' baseline vocabulary knowledge. The test consisted of multiple-choice questions personalized to assess the targeted vocabulary items that were to be taught. This step was very important to create a point of reference for ensuing measurement of the progress.

3.8 STAD Implementation

After the pre-test, the STAD method was introduced as the primary method for teaching vocabulary. The students were divided into small, heterogeneous teams, each consisting of members with different levels of proficiency. The STAD model involved numerous stages:

Opening Instruction: The researcher introduced the target vocabulary through direct instruction, making sure that all students were known to the material equally.

Team Learning Sessions: After the opening instruction, students continued to work in their teams to review, practice, and reinforce the vocabulary knowledge. This team-

based learning promoted peer interaction and collaborative problem-solving, which are the key aspects of the STAD method.

Individual Quizzes: Although students learned together in teams, they were individually assessed on their vocabulary knowledge with the help of short quizzes. The performance of each student helped in the overall score of their team, promotion accountability and collective improvement.

3.9 Post-Test Administration

On completion of the STAD intervention, the same test format used for the pre-test was used as a post-test. This test was made to measure the students' retention of the vocabulary items that were learned during the intervention. Using a similar format made sure the reliability in measurement of the scores and allowed a direct comparison between the results of the pre-test and post-test.

3.10 Data Analysis

The data collected for the study was analyzed quantitatively by with SPSS. The researcher compared the learner's retention of vocabulary before and after the intervention. Descriptive statistics, such as ANOVA and Regression, were also used to analyze data. To examine a significant difference between the pre-test and post-test scores, a paired-sample t-test was administered. Additionally, the quantitative data was explained and elaborated qualitatively for the detailed understanding of the result of the current study.

3.11 Ethical Considerations

This study followed ethical guidelines to protect the participants' rights and welfare. The participants were informed about the study's objectives and their participation's voluntary nature, and they were asked to sign a consent form. The participants' identities were kept confidential, and the data collected was used for research purposes only.

3.12 Limitations of The Study

In this study finding the effectiveness of the Student Teams Achievement Division for teaching vocabulary in high school (HSSC) ESL classrooms within Government Graduate College of Science, Multan several limitations were faced.

Primarily, the study was limited to a single institute, which might limit the applicability of the findings to other educational environments that have less resources or have difference in teaching methods and student demographics. The possibility for changing external factors across different locations could influence the outcomes, making it difficult to generalize the results to all Pakistani high schools or similar educational contexts internationally.

Moreover, the sample size was limited to Grade 11th within the college, possibly not representing the broad spectrum of student populations in Pakistan. Factors such as different levels of student motivation, previous exposure to English, and personal learning speed could affect the effectiveness of the STAD approach and the results of the study.

Practically, the study focused mainly on quantitative assessments of vocabulary acquisition, which may overlook qualitative aspects of student engagement and interaction that are necessary for the STAD approach. This dependence on quantitative data might limit understanding of how students observe and take advantage from cooperative learning strategies.

These limitations recommend a need for further research including a wider range of high schools or higher secondary schools, different student groups, and mixed-method approaches to fully capture the impact and scalability of the STAD approach in teaching vocabulary in ESL contexts.

3.13 Summary

This chapter carefully covered all the main areas of the research and explained why the chosen methods were suitable. It defined the research design used to answer the research questions, making sure that there is a clear connection between the goals of the study and the methods used. The study used a quasi-experimental design to test how well the Student Teams Achievement Divisions (STAD) approach had a positive impact on vocabulary retention among students that are learning English as a Second Language (ESL). The study was set up with pre-tests and post-tests using multiple-choice questions (MCQs) to compare the results between control group and experimental group. The control group used traditional teaching methods, that served as a starting point to measure natural vocabulary development. The experimental group was taught using the STAD method, that allowed comparing its impact. By giving MCQ-based tests before and after the intervention, the study aimed to measure the

changes in vocabulary retention by the use of STAD. This method provided an organized method to assess how effective the STAD approach was, offering practical evidence to support or challenge its benefits. The explained in detail the research design and also highlighted the careful planning and consideration of the research questions, giving valuable insights to the field of ESL education by investigating new teaching strategies.

CHAPTER 4

ANALYSIS

4.1 Introduction

In this chapter analysis of data collected from Government Graduate College of Science, Multan is discussed. The analysis used amended frameworks such as Word Improvement by Kant (2001), Rules for Vocabulary Teaching and Building, Social Constructivism, and Cooperative Learning Theories to assess the learning outcomes denoted as LO 1, LO 2, and LO 3. These learning outcomes include Vocabulary Retention, Vocabulary Comprehension, and the Use of Synonymous Vocabulary respectively. The study includes 60 students as sample for the study, divided into two groups of 30 each. The first group, named the control group, was taught using traditional teaching methods. The second group, named the experimental group, was taught through Student Teams Achievement Divisions (STAD), for the purpose of enhancing retention of vocabulary. With use of various theories, the analysis assesses the effectiveness of traditional against interactive teaching methodologies in acquisition and retention of vocabulary. The comparison between both the control and experimental groups showed the impact of STAD on vocabulary retention, comprehension, and the ability to use synonyms effectively. The findings from this analysis are provides considerable insights into the effectiveness of cooperative learning strategies and their benefits potentially for ESL learners, Thus, focusing on the importance of innovative teaching practices for the development of vocabulary.

This section presents descriptive statistics on the data collected. The data has been quantitatively analyzed with the use of following tools i.e., SPSS, ANOVA, Regression, Non-Parametric Test and T-test. Additionally, the analysis has also been represented graphically in this section which is further explained.

4.2 Descriptive Statistics

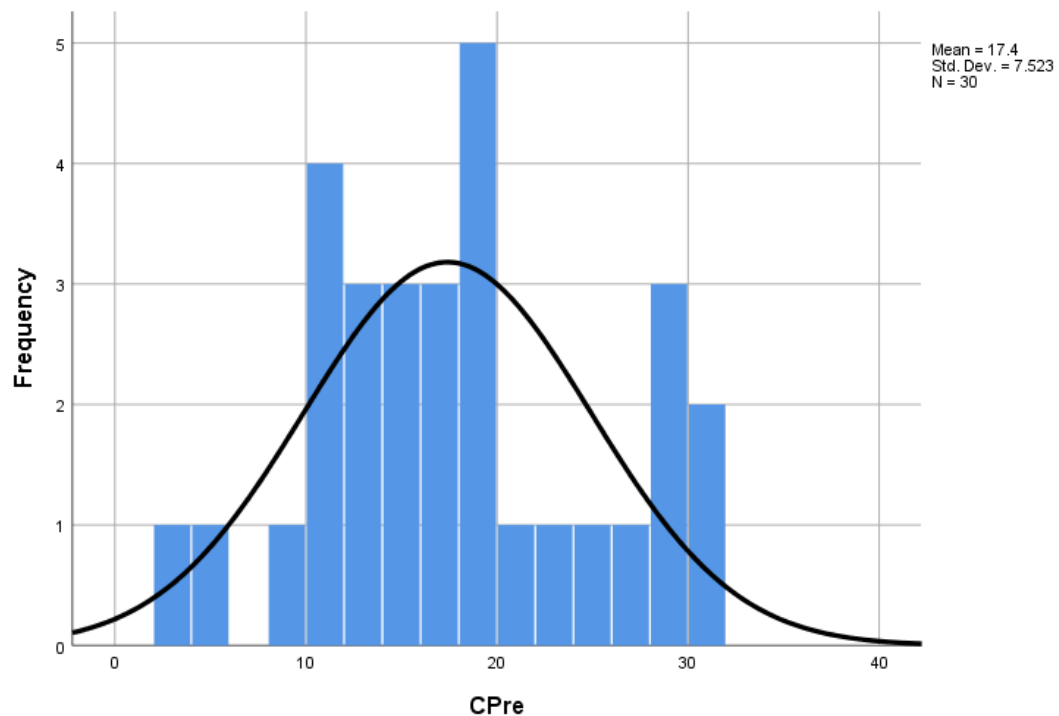


Figure 1 Control Group Pre-Test

Discussion

The histogram of the Control Group Pre-test is overlaid with a curve that appears to represent the normal distribution. This curve is used to analyze the pre-test scores for the control group labeled as "CPre." The histogram bars represent the frequency of scores within specific intervals along the horizontal axis, which displays the test score range.

Looking closely at the histogram, the x-axis, which represents scores, ranges from 0 to 40, while the y-axis, indicating frequency, scales from 0 to 5. The bars show that most scores are concentrated between 10 and 20. There are a few instances where scores fall into the lower (3-10) and higher (20-31) range, but these are less frequent. The highest frequency observed is slightly above 4, occurring in the score range of 15 to 20.

The mean score is marked at 17.4, which is positioned towards the right of the central peak, indicating that the distribution of scores is positively skewed in other words, a greater number of students have scored lower than the mean. The standard deviation, a measure of the spread of the scores, is 7.523, which is relatively high, suggesting considerable variability in the student's scores.

The curve superimposed on the histogram suggests an attempt to fit the observed scores to a normal distribution, which is a common method for analyzing test scores. However, the fit is not perfect, as indicated by the positive skewness. In a perfectly normal distribution, the mean would align with the peak of the curve, and the distribution would be symmetrical around the mean. The skewness here implies that the traditional teaching methods or the test may not have had uniform effects across the participants or that there is a natural variation in the group's abilities or test-taking skills.

The sample size (N) is 30, indicating that these statistics are based on the test scores of 30 students. This number is generally considered sufficient for this type of statistical analysis, allowing for reasonable confidence in the generalizability of the findings to the entire population, assuming the sample is representative. The presence of skewness, however, would suggest that parametric assumptions (like t-tests) should be applied cautiously and that the median might be a more representative measure of central tendency for this data set than the mean.

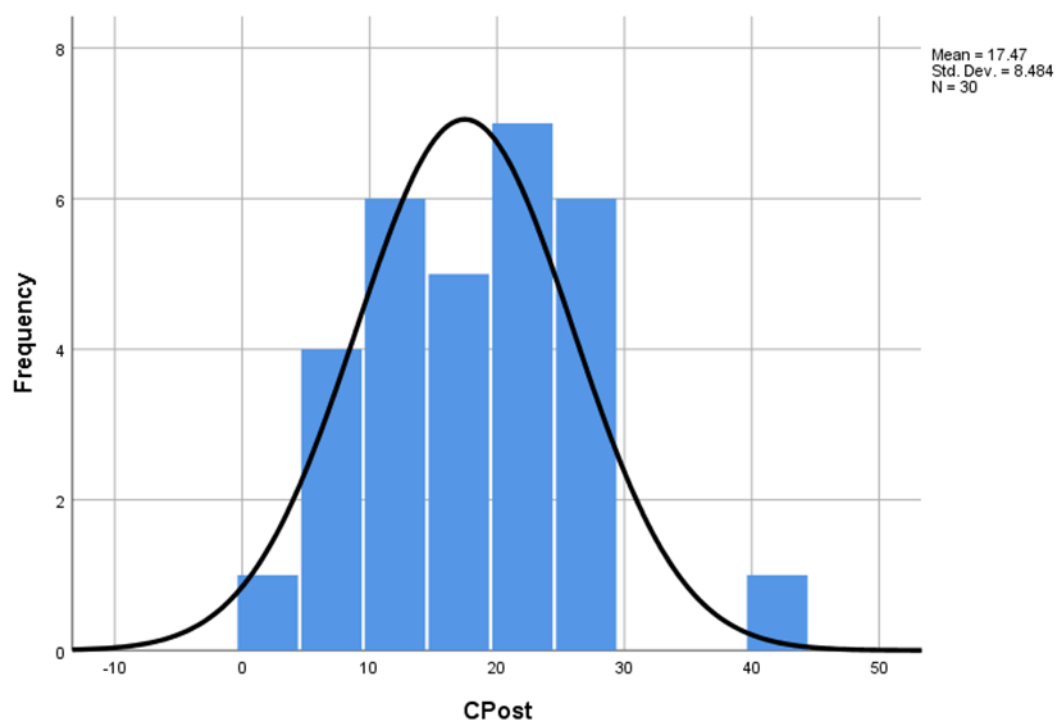


Figure 2 Control Group Post-Test

This histogram of the Control Group Post Test with a superimposed normal distribution curve represents the post-test scores administered by the MCQ based vocabulary test to determine the student's prior knowledge of vocabulary for a controlled group, labeled as "CPost." The histogram illustrates the frequency of the test

scores across different intervals, while the curve suggests the expected normal distribution for a set of data.

On the x-axis, which corresponds to the test scores, the range extends from below 0 to 50, which are the total test marks. The y-axis displays the frequency.

Most of the bars are clustered around the center of the distribution, indicating that most students scored within the mid-range. The tallest bar is located in the 15-20 test score range, where the frequency peaks at just above 7, suggesting this was a common score range among the students.

The mean score is given as 17.47, which falls within this central, most common score range. The standard deviation, which measures the spread of the scores around the mean, is 8.484. A higher standard deviation indicates a wider dispersion of scores from the mean, which is visible here, with several scores falling toward the tails of the distribution.

Unlike the previous histogram, the distribution here appears to be slightly negatively skewed, as indicated by the higher frequency bars leaning towards the left of the mean. In a perfectly normal distribution, the curve would be symmetrical, with the mean at the peak. However, in this histogram, the peak is slightly to the left of the mean, and there is a long tail stretching towards the right, showing that fewer students scored very high post-test scores.

The sample size for this data set is also 30 ($N=30$), which suggests that the statistical analysis can provide a fair representation of this controlled group's performance.

The presence of a small negative skew indicates that while the majority of scores are centered around the mean, there is a slight tendency for scores to fall below the mean more often than above it. This pattern might hint at a challenging post-test where fewer students scored at the higher end of the scale, or it may reflect the varied abilities of the students within the group.

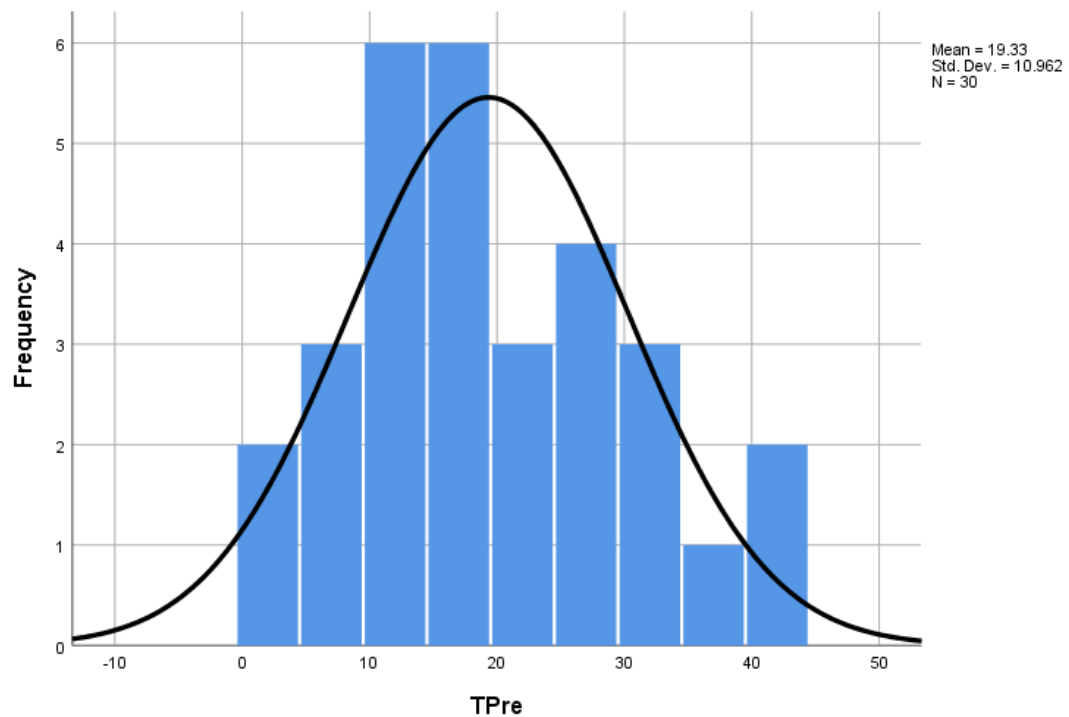


Figure 3 Experimental Group Pre-Test

This graph of the Experimental Group Pre-Test is a histogram overlaid with a normal distribution curve that represents the pre-test scores of a group labelled as Treatment Pre or "TPre". The histogram is a visualization of the frequency of the test scores within the group, with the x-axis representing the score ranges and the y-axis representing the number of occurrences for each range.

The scores extend from the low end just above 0 to about 50, with the majority of scores clustering in the middle range. The tallest bar is between 10 and 20, where the frequency hits the highest point, indicating that most students scored within this interval. The mean, or average score of the group is 19.33, situated around the central peak of the histogram, which correlates with the most frequent score range.

A standard deviation of 10.962 points to a substantial spread in scores, suggests a wide range of outcomes within the group. This is a relatively high standard deviation for the mean, indicating that while many students scored around the average, there were also quite a few with scores that deviated significantly from the mean in both lower and higher directions.

The normal curve, which represents the expected distribution of scores if they were normally distributed, doesn't quite match up with the actual distribution of the scores as shown by the bars. The histogram shows a slight negative skew, meaning

there are more scores distributed towards the lower end of the scale than would be expected in a normal distribution. This skewness implies that a segment of the group found the test challenging, with fewer students achieving very high scores.

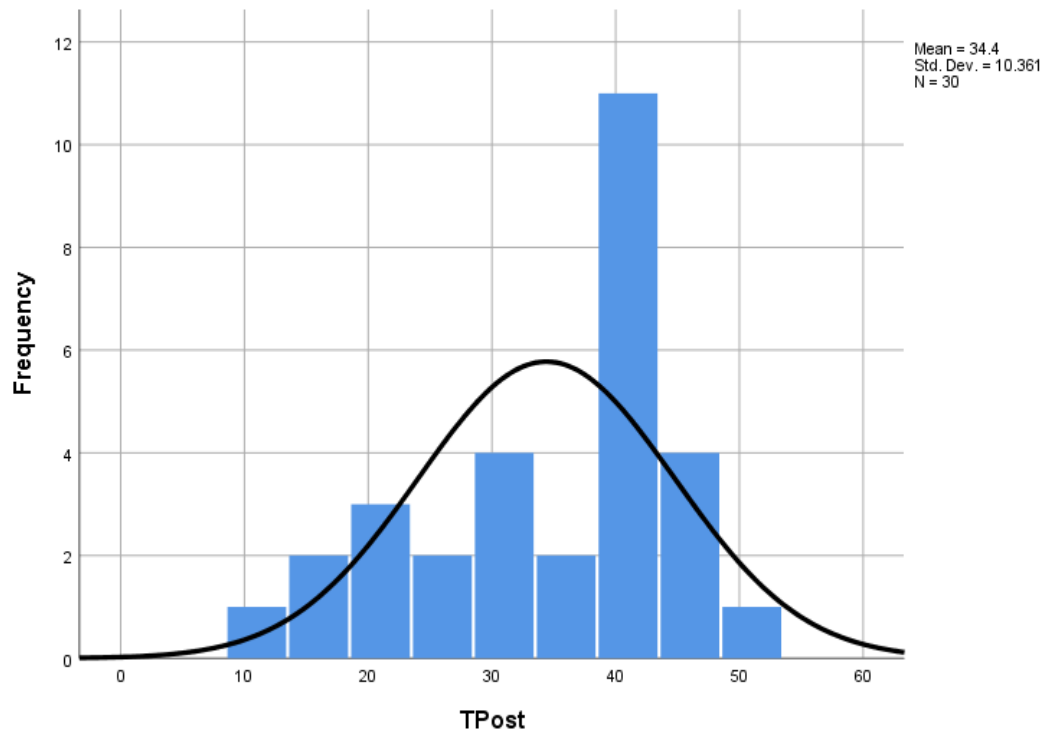


Figure 4 Experimental group post test

Overall, the Experimental Group Pre-test as denoted by "T Pre" histogram suggests a diverse set of abilities within the group before any intervention was applied, with a range of scores that vary widely around the mean. The graph provides a benchmark against which the effectiveness of any subsequent interventions could be measured by comparing these initial scores to those obtained after the intervention.

The graph of the Experimental Group Post-test depicts a histogram overlaid with a curve representing the distribution of post-test scores that is labeled as "TPost, i.e., "Treatment Post" likely indicating the scores were collected after a specific intervention in the study. This histogram shows the frequencies of scores that a group of 30 students achieved.

The x-axis of the histogram represents the score range, which spans from 0 to just above 60. The y-axis measures the frequency of these scores. Observing the histogram, there is a significant peak around the 40-50 score range, which is the most frequent score interval among the students. This peak is notably higher than the rest of the data, suggesting a large number of students scored within this range.

The mean score, as indicated on the graph, is 34.4, and it is situated within the range that has the highest frequency of scores. However, it is noteworthy that the distribution of scores is positively skewed, meaning the tail of the distribution extends toward the higher end of the score range. This is evident from the bars on the right side of the mean that are taller than those immediately to the left.

The standard deviation, a measure of the spread of the scores, is 10.361, indicating that there is considerable variability in the student's post-test scores. A standard deviation this size relative to the mean suggests that while many scores are clustered around the mean, there is also a significant spread of scores away from the mean, particularly towards the higher end.

The presence of the normal distribution curve suggests a normal distribution, and the positive skew indicates that the actual score distribution deviates from this model. This skewness can suggest that while the intervention may have been effective for a number of students, resulting in higher scores, there are also students who achieved scores closer to the average, leading to the elongated tail on the high-score end of the distribution.

In conclusion, the histogram for the Experimental Group Post-test denoted by "TPost" scores demonstrates that a significant number of students achieved high scores after the intervention, with the majority of students scoring between 40 and 50. The positive skewness and the wide standard deviation imply that there is a considerable spread in the student's scores, with a tendency for some students to score much higher than others. This indicates that the intervention had a variable impact on the students, with some benefiting more than others, or that there were a few students who scored exceptionally well.

	N	Minimum	Maximum	Mean		Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic
CPre	30	3	31	17.40	1.373	7.523
CPost	30	2	40	17.47	1.549	8.484
ExpPre	30	2	43	19.33	2.001	10.962
ExpPost	30	11	50	34.40	1.892	10.361

Table 1 Test Scores of Control and Experimental Group Pre and Post Test

The table of the Pre and Post-tests provides descriptive statistics for the two groups, a controlled group and an Experimental group, with data points for both pre-test and post-test scores.

For the controlled group's pre-test (CPre), the scores ranged from a minimum of 3 to a maximum of 31, with an average (mean) score of 17.40. The standard deviation, which measures the amount of variation or dispersion of a set of values, was 7.523, indicating a moderate spread of scores around the mean. The standard error of the mean, at 1.373, indicates how much the sample mean might differ from the total mean.

The controlled group's post-test (CPost) scores show a slightly wider range with a minimum of 2 and a maximum of 40, but the mean score is nearly unchanged at 17.47. The standard deviation increases slightly to 8.484, suggesting that the post-test scores were more spread out than the pre-test scores. The standard error also increased to 1.549, reflecting this greater dispersion.

For the intervention group's pre-test (ExpPre), we see a broader range of scores from 2 to 43, with a mean score of 19.33. The standard deviation is significantly higher at 10.962, indicating a wide variability in scores. This is also reflected in a higher standard error of 2.001, suggesting that the average score for ExpPre may not be as reliable a measure of the centre of the data set as the CPre mean.

Post-Experiment (ExpPost), the Experimental group's scores ranged from 11 to 50, a narrower range than the Experimental Group Pre-test denoted as ExpPre but with a higher minimum score. The mean score jumped to 34.40, which is a substantial increase from the Experimental Group Pre-test mean, suggesting that the intervention had a positive effect on the scores. The standard deviation is slightly lower at 10.361 compared to the Experimental Group Pre-test, and the standard error decreased to 1.892, indicating that the post-test scores are more tightly clustered around the mean than the pre-test scores.

4.2.1 T-Test Control Group

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	CPre	17.40	30	7.523	1.373
	CPost	17.47	30	8.484	1.549

Table 2 Control Group T-Test

Paired Samples Test						
		Paired Differences				
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference	
					Lower	Upper
Pair 1	CPre - CPost	-.067	10.478	1.913	-3.979	3.846
Paired Samples Test						
				t	df	Sig. (2-tailed)
1	Pair	CPre – Cpost		-.035	29	.972

Table 3 Paired Sample Differences

Discussion

The T-test results for the controlled group present an analysis comparing the mean scores of the group before Control Group Pre-test (CPre) and after the Control group Post-test (CPost), a certain period or condition where no specific intervention was applied and the students were taught by their respected teachers by using traditional teaching techniques. This comparison is intended to evaluate whether there was a statistically significant change in the test scores due to any external factors.

According to the paired samples statistics, the controlled group had a pre-intervention mean score (CPre) of 17.40 with a standard deviation of 7.523, which signifies moderate variability in scores. Post-intervention (CPost), the mean score was

17.47, showing an extremely marginal increase with a slightly higher standard deviation of 8.484, suggesting that the post-intervention scores were more spread out than the pre-intervention standardized vocabulary test scores. The standard error of the mean also rose from 1.373 to 1.549, indicating a slight increase in the expected error margin of the mean score estimate.

The paired samples test, which compares the pre and post-test marks, reveals a mean difference of -0.067 and a standard deviation of the differences at 10.478, a number that is quite high relative to the mean difference. This high variability in the differences of test marks could be indicative of a non-uniform response across the sample. The 95% confidence interval for the mean difference ranges from -3.979 to 3.846, a very wide interval that includes zero, suggesting that any difference in means is not statistically significant.

The key statistic here is the t-value of -0.035 with 29 degrees of freedom, resulting in a p-value of 0.972, far above the conventional threshold of 0.05 for statistical significance. This p-value indicates that there is a 97.2% probability that the observed difference in means could have occurred by chance alone. Therefore, we can infer that there was no significant change in the scores of the controlled group from before to the after period in question.

In conclusion, the t-test analysis for the controlled group's pre and post-test scores provides strong evidence that there was no significant effect of the intervening period done through traditional teaching methods on the group's performance. This finding is critical as it establishes a baseline of natural score difference over time against which the effect of any interventions applied to other groups can be measured.

4.2.2 T-Test Experimental Group

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	ExpPre	19.33	30	10.962	2.001
	ExpPost	34.40	30	10.361	1.892

Paired Samples Test						
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference	
					Lower	Upper
Pair 1	ExpPre – ExpPost	-15.067	13.686	2.499	-20.177	-9.956

Paired Samples Test				
		t	df	Sig. (2-tailed)
Pair 1	ExpPre – ExpPost	-6.030	29	.000

Table 4 Experimental Group T-Test

4.2.3 Discussion

The T-test results for the intervention group revealed a significant difference in the pre-test and post-test scores, as measured by the paired samples statistics and tests.

Before the intervention, the mean score of the group (ExpPre) was 19.33, with a standard deviation of 10.962, which shows a wide spread of scores. This is also reflected in the relatively high standard error of the mean (SEM) of 2.001, which suggests that there is considerable uncertainty in estimating the population mean based on this sample.

Following the intervention, the mean score of the Experimental Group Post-Test (ExpPost) increased to 34.40, and the standard deviation decreased slightly to 10.361. Interestingly, the Standard Error Mean also decreased to 1.892, indicating a more precise estimate of the population's mean post-intervention.

The paired samples test, which compares the mean scores before and after the intervention, shows a mean difference of -15.067. This negative sign indicates that the post-test scores are higher than the pre-test scores. The standard deviation of this difference is 13.686, with an SEM of 2.499, resulting in a 95% confidence interval ranging from -20.177 to -9.956. This interval does not include zero, which suggests that the difference in means is statistically significant and not due to random chance.

The t-value for this comparison is -6.030, and with 29 degrees of freedom, the significance (2-tailed) is .000. A p-value of less than .001 is highly significant, which means there is a statistically significant increase in scores after the intervention of STAD for vocabulary retention.

These results strongly suggest that the intervention had a substantial and positive effect on the test scores of the participants. The considerable increase in the average score, combined with the statistical significance indicated by the t-test, provides strong evidence of the intervention's effectiveness. The intervention seems not only to have raised the mean score but also to have done so with a high degree of confidence, considering the tight confidence interval and the very low p-value. However, the spread of scores indicated by the standard deviations in both the pre-test and post-test also suggests that while the intervention of STAD for the purpose of vocabulary retention was generally effective, its impact varied among the students individually in the group, which is not uncommon in educational settings and interventions.

4.2.4 Control Group Pre-Test VS Experimental Group

Pre-Test					
Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	CPre	17.40	30	7.523	1.373
	ExpPre	19.33	30	10.962	2.001

Table 5 Control Group Pre-Test vs Experimental Group Pre-Test

Paired Samples Test				
		Paired Differences		
		Mean	Std. Deviation	Std. Error Mean
				95% Confidence Interval of the Difference

					Lower	Upper
Pair 1	CPre – ExpPre	-1.933	14.626	2.670	-7.395	3.528

Table 6 Paired Differences of Control Group and Experimental Group Pre-Tests

Paired Samples Test				
		t	df	Sig. (2-tailed)
Pair 1	CPre – ExpPre	-.724	29	.475

Discussion

The paired sample statistics for the control group's pre-test (CPre) and the Experimental group's pre-test (ExpPre) provide a comparison of the two groups before any intervention.

The mean score for CPre is 17.40 with a standard deviation of 7.523, indicating the variability of scores in the controlled group. The Experimental group's pre-test mean score (ExpPre) is slightly higher at 19.33, with a larger standard deviation of 10.962, reflecting a broader spread of scores than in the controlled group. The higher standard error in the Experimental Group Pre-Test (ExpPre) (2.001) compared to the Control Group Pre-Test (CPre) (1.373) implies that the estimated mean score for the intervention group is less precise, pointing to greater variability among scores.

The paired differences between Control Group Pre-Test and the Experimental Group Pre-Test show a mean difference of -1.933, indicating that, on average, the intervention group scored higher than the control group before any intervention. However, the high standard deviation of the paired differences, 14.626, and a relatively large standard error of the mean difference, 2.670, resulting in a wide 95% confidence interval ranging from -7.395 to 3.528. This interval crosses zero, suggesting that the difference in mean scores is not statistically significant.

In the paired samples t-test, the t-value is -0.724 with 29 degrees of freedom, resulting in a significance (2-tailed) p-value of 0.475. Since this p-value is much greater

than the conventional alpha level of 0.05, we cannot reject the null hypothesis that there is no difference in means; therefore, any observed difference in pre-test scores between the controlled and Intervention groups is not statistically significant.

The lack of significant difference between the Control Group Pre-Test and Experimental Group Pre-test mean scores suggests that, initially, both groups performed similarly before any intervention was administered. This similarity is important for experimental design as it indicates that any subsequent differences found after the intervention can be more confidently attributed to the Intervention itself rather than pre-existing differences between the groups. The high variability in both groups, as shown by the standard deviations and the standard errors, underscores the diverse range of abilities within each group before the Intervention. This diversity should be considered when evaluating the effectiveness of the intervention.

Paired Samples Statistics						
		Mean	N	Std. Deviation	Std. Error Mean	
Pair 1	CPost	17.47	30	8.484	1.549	
	TPost	34.40	30	10.361	1.892	
Paired Samples Test						
		Paired Differences				
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference	
					Lower	Upper
Pair 1	CPost - TPost	-16.933	11.411	2.083	-21.194	-12.673
Paired Samples Test						
				t	df	Sig. (2-tailed)
Pair 1	CPost – TPost			-8.128	29	.000

Table 7 Paired Sample T-Test of Control Group Post Test and Experimental Group Post Test

4.2.5 Discussion

The paired samples statistics compare the control group's post-test (CPost) scores with the treatment group's post-test (TPost) scores, showing a substantial difference after the intervention.

The mean score for CPost is 17.47, with a standard deviation of 8.484, indicating a moderate spread of scores in the controlled group after the intervention. In contrast, the treatment group's post-test mean score (TPost) is 34.40, with a standard deviation of 10.361, suggesting a wider spread of scores but a significantly higher average score compared to the controlled group.

The paired differences between CPost and TPost reveal a mean difference of -16.933, indicating that, on average, the treatment group scored much higher than the controlled group after the intervention. The standard deviation of the paired differences is 11.411, with a standard error of the mean difference of 2.083. The 95% confidence interval for the difference in means ranges from -21.194 to -12.673, indicating a high degree of confidence that the treatment had a significant positive effect on the scores.

In the paired samples t-test, the t-value is -8.128 with 29 degrees of freedom, resulting in a highly significant p-value of .000. This indicates that the observed difference in mean scores between the controlled and treatment groups after the intervention is unlikely to have occurred by random chance.

These results demonstrate a clear and statistically significant improvement in the invention group test scores after the implementation of STAD as compared to the control group taught using traditional teaching methods. The substantial increase in the experimental group's average score, fixed with the constricted confidence interval and very low p-value, provides strong evidence of the effectiveness of the STAD technique. The control group's scores, in contrast, remained relatively stable, further supporting the conclusion that any observed improvements in the treatment group can be attributed to the intervention itself.

4.2.6 Paired Sample T-Test Control Group

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	CPre	17.40	30	7.523	1.373

					Lower	Upper
Pair 1	TPre - TPost	-15.067	13.686	2.499	-20.177	-9.956
Paired Samples Test						
				t	df	Sig. (2-tailed)
Pair 1	TPre - TPost			-6.030	29	.000

Table 10 Paired Differences of Experimental Group Pre and Post Tests

4.2.7 Regression

Variables Entered/Removed ^a			
Model	Variables Entered	Variables Removed	Method
1	Group ^b	.	Enter
a. Dependent Variable: T_Score			
b. All requested variables entered.			

Table 11 Regression Analysis

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.583 ^a	.340	.329	10.666
a. Predictors: (Constant), Group				

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3405.067	1	3405.067	29.933	.000 ^b

	Residual	6597.867	58	113.756		
	Total	10002.933	59			
a. Dependent Variable: T_Score						
b. Predictors: (Constant), Group						

Table 12 ANOVA

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.267	4.354		.980	.331
	Group	15.067	2.754	.583	5.471	.000
a. Dependent Variable: T_Score						

NPar Tests

One-Sample Kolmogorov-Smirnov Test		
		T_Score
N		60
Normal Parameters ^{a,b}	Mean	26.87
	Std. Deviation	13.021
Most Extreme Differences	Absolute	.124
	Positive	.101
	Negative	-.124
Test Statistic		.124
Asymp. Sig. (2-tailed)		.022 ^c
a. Test distribution is Normal.		
b. Calculated from data.		

c. Lilliefors Significance Correction.
--

Table 13 One Sample Kolmogorov-Smirnov Test

4.2.8 Discussion

4.2.8.1 Experimental Group Pre-Test (TPre) and Experimental Group Post-test (TPost)

The second paired samples t-test between Experimental Group Pre-test (TPre) and Experimental Group Post-test (TPost) shows a substantial difference in means (19.33 vs. 34.40). The standard deviations are relatively large but consistent with the mean values. The mean paired difference is -15.067, suggesting a significant increase from the Experimental Group Pre-test (TPre) to the Experimental Group Post-test (TPost). This is supported by the 95% confidence interval for the mean difference (-20.177 to -9.956), which does not include zero, indicating a robust effect. The t-test is highly significant ($t = -6.030$, $df = 29$, $p < 0.001$), pointing to a significant effect of the intervention of STAD leading to improvement from the Experimental Group Pre-test (TPre) to Experimental Group Post-test (TPost).

4.2.8.2 Regression Analysis

The regression analysis tests the effect of a categorical variable i.e., the Control Group on a continuous outcome variable i.e., the Experimental Group. The Model Summary shows a good fit, with an R-square of 0.340, indicating that about 34% of the variability in the total student marks of the experimental Group can be explained by the group membership. The F-statistic from the ANOVA table is significant ($F = 29.933$, $p < 0.001$), confirming the predictive power of the Experimental Group variable. The coefficients table reveals that being in the experimental group is associated with an increase of 15.067 points in the Total Score (T_Score) compared to the control group ($t = 5.471$, $p < 0.001$).

4.2.8.3 Control Group Pre (CPre) and Control Group Post (CPost)

The first paired samples t-test compares two conditions: Control Group Pre-test (CPre) and Control Group Post-test (CPost). The means are very close (17.40 for the Control Group Pre-test (CPre) and 17.47 for the Control Group Post-test (CPost), and the standard deviations indicate some variability within each group. The paired

differences analysis shows a mean difference of -0.067, with a large standard deviation of 10.478 relative to this mean difference, indicating that any difference between the Control Group Pre-test (CPre) and the Control Group Post-test (CPost) is not consistent across the sample. The 95% confidence interval for the mean difference ranges from -3.979 to 3.846, encompassing zero, which supports this lack of a consistent effect. The t-test result ($t = -0.035$, $df = 29$, $p = 0.972$) confirms that there is no statistically significant difference between Control Group Pre-test (CPre) and Control Group Post-test (CPost) scores, indicating that whatever intervention or condition was tested did not result in a measurable change over time.

4.2.9 Non-Parametric Test

The One-Sample Kolmogorov-Smirnov Test checks the normality of the Total Score of the Experimental Group denoted by T-Score distribution. The test statistic is 0.124 with a p-value of 0.022, indicating that the Total Score distribution is suggested to be normal.

4.2.10 Summary

This chapter analyzed data from Government Graduate College of Science, Multan, using frameworks such as Word Improvement by Kant (2001), Rules for Vocabulary Teaching and Building, Social Constructivism, and Cooperative Learning Theories. The study evaluated three learning outcomes: Vocabulary Retention, Vocabulary Comprehension and Use of Synonymous Vocabulary. A sample of 60 students was divided into a control group, taught with traditional methods, and an experimental group taught using the Student Teams-Achievement Divisions (STAD) method. The analysis aimed to assess the effectiveness of traditional versus interactive teaching methodologies in vocabulary acquisition and retention. The findings provided insights into the benefits of cooperative learning strategies for ESL learners, contributing to the discourse on innovative teaching practices in vocabulary development.

In conclusion, the paired samples t-test indicated significant improvements in Experimental Group Post-test (TPost) as compared to Experimental Group Pre-test (TPre), but no significant changes between Control Group Pre-test (CPre) and Control Group Post-test (CPost) were found. The regression analysis strongly suggests that group membership influences the Total Score of the marks of the Experimental Group

after the intervention denoted by T_Score, demonstrating the effectiveness of the experimental condition. However, the normal distribution of T_Score calls for consideration of the statistical methods used and potentially validates the use of non-parametric tests in this context. These findings provide a detailed view of the impact of different conditions or interventions on the variables studied, underlining the importance of statistical tools in interpreting educational or psychological research data.

4.3 Qualitative Findings

The effectiveness of the Student Teams-Achievement Divisions (STAD) technique in three essential learning outcomes (LOs) i.e., Vocabulary Retention (LO 1), Vocabulary Comprehension (LO 2), and Using Synonymous Vocabulary was determined through the six-week implementation of the STAD technique in the experimental group. This complete analysis examines the distribution of score for each of the learning outcome and determines the usefulness of the STAD technique through an examination of the percentages and frequencies of participants who achieved scores within the set standards.

4.3.1 Post Test Analysis of Experimental Group

LO 1 (Vocabulary Retention)	LO 2 (Vocabulary Comprehension)	LO 3 (Using Synonymous Vocabulary)	Total Marks
26	13	11	50
23	9	8	40
22	9	11	42
23	12	10	45
21	9	8	38
10	5	5	20
22	8	9	39
22	9	11	42
25	11	11	47
24	10	10	44
26	9	11	46
23	10	10	43
21	10	9	40
19	8	8	35
16	6	7	29
18	7	7	32
14	7	6	27
18	7	6	31
15	6	7	28
22	8	9	39
20	10	10	40
16	9	8	33
20	10	9	39
22	9	9	40
22	8	9	39
9	3	3	15
7	2	2	11
11	5	4	20
9	4	5	18
10	5	5	20
Sum 556	238	238	1032
Mean 18.53	7.93	7.93	34.4

Table 14 Experimental Post Test Scores

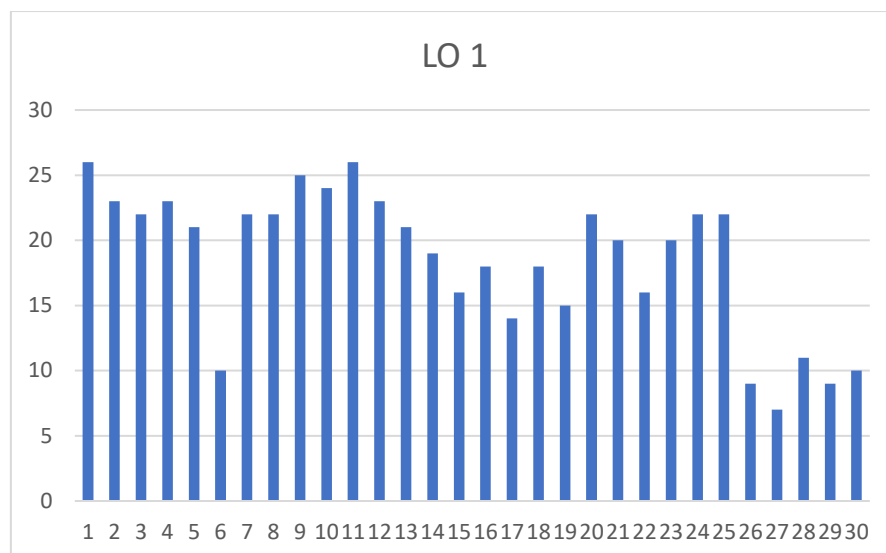


Figure 5 Vocabulary Retention Performance Distribution

The following is the Analysis and Distribution of Performance:

4.3.2 Vocabulary Retention (LO 1)

Among the three learning outcomes, Vocabulary Retention shows the most visible performance overall, signifying that the STAD technique specially have an improvement on memory and recalling abilities in vocabulary development. Students in this specific category showed an excellent capacity to remember newly learnt vocabulary words, a very important skill for both the learning of languages and its use.

High achievers (20-22 marks): Around 30% of the participants got scores ranging from 20 to 22, which is equal to marks reaching perfection. The visible level of achievement shows the effectiveness of the cooperative education atmosphere facilitated by STAD, in which students assist one another in comprehending and strengthening information, which allows considerable retention.

Moderate achievers (15–19 marks): Approximately 40% of the students showed a satisfactory level of vocabulary retention, even though with a possibility for further development. The observed range of marks indicates that although a large number of students took advantages from the learning experience, there were still possibilities for improving interaction or clarifying teaching strategies within the teams.

Achievers with marks Below 15: The remaining 30% achieved marks below 15 marks. Different initial levels of vocabulary knowledge, fluctuations in team dynamics,

or the necessity for more focused interventions for students with lower academic performance might be responsible for the variance in scores.

4.3.2.1 Discussion

The First Learning Outcome Suggests that the high frequency of high achievers in LO 1 indicates that the cooperative structure of the STAD technique, which promotes group instruction and discussion, is especially effective for memorization and retention of vocabulary. The observed result is clearly associated to the repetitive vocabulary usage that takes place within teams, which provides students with repeated opportunities to memorize new words in a supportive environment.

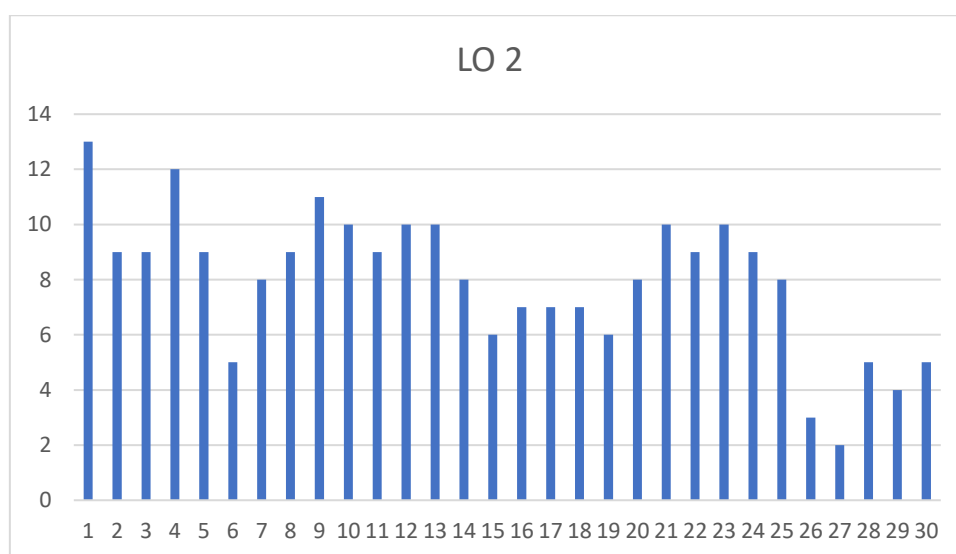


Figure 6 Vocabulary Comprehension Performance Distribution

4.3.3 Vocabulary Comprehension (LO 2)

Students were graded on their ability to understand and use vocabulary in context which is an important skill for communicating effectively in the Vocabulary Comprehension stage. This category provides results that points towards the amount of which students are capable of making use of their vocabulary knowledge in real-world situations.

High Achievers (13-17 marks): Approximately 25% of the participants attained scores in this highest range, signifying a visible ability for vocabulary comprehension within context. The improved scores in this particular section show a skillful implementation of the STAD approach in helping with comprehension with use of collaborative learning activities.

Moderate Achievers (9-12 marks): Approximately 50% of the students got marks within this middle range. The obtained marks show that majority of students have achieved a reasonable level of comprehension in the use of vocabulary. This shows the effectiveness of the STAD technique in improving student's comprehension. However, the scores also highlight potential challenges that could be resolved through the modification of teaching styles or interactions among students.

Students With Lower marks (below 9 marks): Around 25% of the students obtained marks below 9, showing a need for extra guidance or different teaching strategies to assist those learners who, irrespective of the group learning environment, may have difficulties while comprehending.

4.3.3.1 Discussion

The data presented in LO 2 indicates that although the STAD technique helps vocabulary comprehension for a significant number of students, there is considerable variation in the extent to which students are able to apply their vocabulary knowledge to comprehension. One potential strategy for avoiding this difference is to increase the number of personal instructions or to offer more structured comprehension activities.

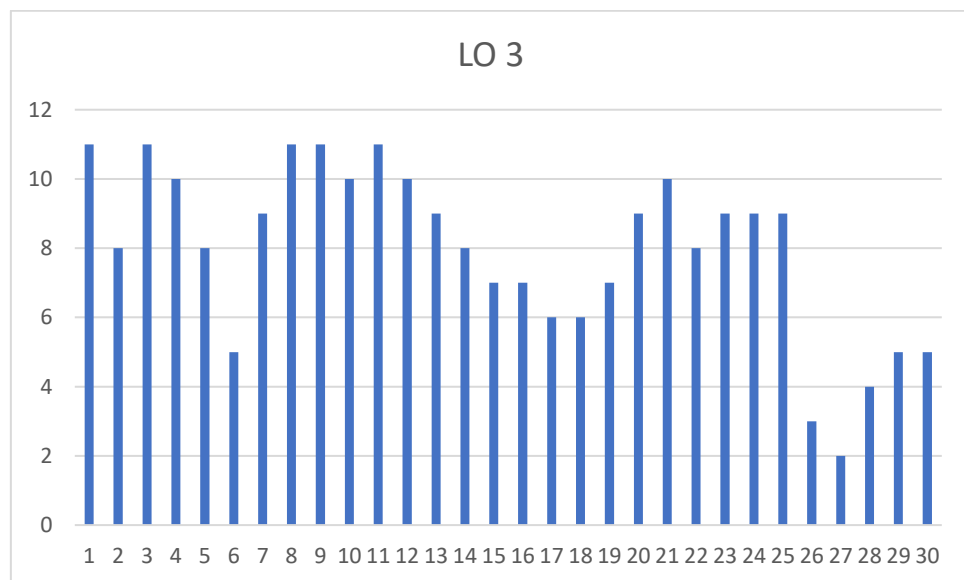


Figure 7 Use of Synonymous Vocabulary Performance Distribution

4.3.4 Synonymous Vocabulary (LO 3)

Using Synonymous Vocabulary evaluates student's ability to successfully use diverse words with comparable meanings, which improves written and spoken linguistic variety.

High Scorers (9-11 marks): Approximately 20% of the students attained scores within this top position, showing exceptional aptitude in the use of synonymous vocabulary. This success rate indicates that the interactive and engaging nature of STAD supports a profound understanding of synonymous vocabulary for a good number of students.

Moderate Achievers (5-8 marks): Approximately 60% of the participants achieved scores within the moderate range. The obtained marks indicate an overall competence in utilizing synonyms however, this could be further improved by engaging in targeted vocabulary exercises within teams and more concentrated peer learning activities.

Students with lower than 5 marks (below 5 marks): Challenges in comprehending the utilization of synonymous vocabulary were indicated by the 20% of students who obtained marks below 5. This result indicates the necessity for additional pedagogical strategies, possibly including a wider range of teaching material or methodologies to accommodate various learning styles.

Although STAD assists many students in developing their ability to use synonymous vocabulary, it could be further optimized to assist low performers, as per the results of LO 3. By incorporating the methodology with additional focused synonym exercises and integrating a wide range of learning aids, it is possible to enhance results for every student.

In general, the experimental group has proven encouraging outcomes in all three learning outcomes with the implementation of the STAD technique, with a special focus on vocabulary retention. While the approach's focus on collaborative learning and interaction among students seems to be exceedingly successful in improving vocabulary retention and comprehension, it could still be further refined in terms of its influence on the use of synonymous vocabulary. In order to fully utilize the advantages of the STAD technique, it is advisable for educators to consider the incorporation of resources and customized approaches that meet the particular needs of failing students and guarantee constant progress throughout all levels of proficiency.

4.3.5 The result of the Experimental group (post-test) in coordination with the learning outcomes and the factors influencing STAD

This gives answers to the 2nd Research Question of the present study

1. Creating Teams (Group Dynamics).

The STAD technique's effectiveness depends on the formation of successful teams. This involves arranging students in such a way that each team has a mixed set of talents, backgrounds, and academic abilities. This variety is important because it creates a rich environment in which peer learning is maximized.

In the experimental group, careful team building guaranteed that the students could learn from one another, with strong performers taking advantage of their talents to inspire others who might struggle. This environment was very useful for improving vocabulary retention and understanding, as shown by the results. Positive group dynamics created an environment in which students felt more comfortable and involved, resulting in active participation and learning.

2. Individual Accountability

Individual Accountability is a major part of the STAD approach, as each student's performance directly influences the group's score. This framework inspires all members to make useful contributions. In this study, individual accountability resulted in visible improvements in the performance of the students across all the expected learning outcomes. Students were motivated to involve more thoroughly with the learning content because they knew their efforts would affect not just their results, but also the results of their teammates. This was reflected in better results for the use of synonymous vocabulary, which required individual efforts to understand and use vocabulary in different settings.

3. Group Motivation

Group motivation in STAD links as the shared aim of getting good marks as a team. This common aim might be more motivating than individual work since it gives students a sense of belonging and importance within their group. This motivation was especially visible in the way students addressed problems with vocabulary comprehension and retention. The encouragement of the group and support most certainly helped to improve the performance seen, since the experimental group showed significant improvements in comprehending and retaining new vocabulary words. The desire to not let the team down was a major motivator for students to put in more effort and focus on their assignment.

4. Team Growth

Team growth in the context of STAD refers to the ability of the group to work together over time, making strong collective problem-solving abilities, communication, and support for one another. As the experimental group moved further, there was a visible improvement in their ability to collaborate, which is linked to the academic success. This progress was not only in academic performance but also in how students supported one another, resulting in a more united learning environment. This unity was central in improving scores on all three learning outcomes because it increased the usefulness of the STAD's teamwork and collaborative learning activities.

4.3.5.1 Discussion

To conclude, the successful application of the STAD technique and the positive outcomes observed in the research can be linked to effective group management, an emphasis on individual accountability, a motivational structure of group goals, and overall team growth related to collaboration and mutual support. These aspects worked together to produce a strong learning environment that not only boosted academic achievement but also provided students with critical interpersonal and cognitive abilities that can be applied outside of the classroom.

4.4 Analysis

In Comparison to the pre and posttest marks of the experimental group, keeping in view the learning outcomes and the theoretical framework of the research:

The pre-test scores provided the basis to assess the student's prior knowledge and skills related to vocabulary learning before implementing STAD (Student Teams Achievement Divisions). When comparing the post-test scores, the analysis shows a prominent improvement in the performance of students, signifying that the STAD technique had positively impacted their vocabulary learning outcomes.

Keeping in view the theoretical framework the STAD technique is used depending on the principles of cooperative learning and social constructivism, which clearly shows the importance of group interaction, collaboration, and the construction of knowledge through social processes. The technique's objective is to enhance academic achievement by promoting positive self-confidence, individual accountability, and group processing skills.

The research gives attention on three major components of vocabulary learning: vocabulary retention, comprehension, and the use of synonymous vocabulary. The analysis of the pre-test and post-test scores shows that the STAD technique had variably impacted these learning outcomes.

1. Vocabulary Retention:

In the pre-test, some students scored relatively low, indicating challenges with successfully retaining vocabulary words. However, in the post-test, a good amount of improvement was observed, and many participants scored higher in vocabulary retention. This suggests that the collaborative learning environment and interpersonal support together with the STAD technique played a fundamental role in improving the aptitude of the participating students in retaining and recalling vocabulary words over time.

2. Vocabulary Comprehension:

It was found that performance of students in vocabulary comprehension on the pre-test was varied. Some students scored relatively high marks, while others scored fewer marks. Post-tests indicated overall improvement in vocabulary comprehension, with most scores improving in this domain. Setting the stage for STAD likely contributed to a better understanding and comprehension of the meaning of the vocabulary words through the interactive discussions, group-based teaching, and team-based activities.

3. Using Synonymous Vocabulary:

Based on this, it is clear that most students were having trouble using synonymous vocabulary. Therefore, many students scored lower in this area in the pre-test. The marks drawn from the post-test showed that the participants were able to use synonymous vocabulary, as many scored higher marks than that in the Pre-test. The collaborative learning environment was created by applying the STAD technique by providing personal feedback, modelling, and support opportunities that helped them develop skills to utilize synonymous vocabulary effectively.

4.5 Interviews

To establish an initial link between the target theoretical foundations and the participants' practices (Bazeley, 2013), background information about the interviewees'

knowledge of Teaching English language as a second language and their attitudes towards teaching vocabulary was prompted. Thus, several questions were asked at the beginning of the interview to establish contextual information about the interviewees. The researcher chose the professors based on their years of service in the field of teaching English at the college level.

The researcher asked three college professors 'How to incorporate STAD with the current curriculum?' The following questions were asked from them:

Q1- Could you briefly describe your familiarity with the STAD technique and your experience, if any, in using it in your teaching?

Q2- In your opinion, what are the potential benefits of incorporating STAD into the current curriculum?

Q3- What challenges or barriers do you anticipate in implementing STAD within the existing curriculum structure?

Q4- How can the STAD technique be aligned with the specific learning objectives and content areas outlined in the current curriculum?

Q5- What professional development or training opportunities would be beneficial for educators to effectively implement STAD in their classrooms?

1. The Perspective of Three Professors on Incorporating the STAD Technique

Three college professors in Multan, South Punjab region responded to questions for adopting Student Teams Achievement Divisions (STAD) into their teaching techniques, providing a bigger picture of the potential, problems and strategic alignment with the curriculum. Here, we explore their opinions further.

2. Potential advantages of incorporating STAD into the current curriculum

Enhanced student engagement and participation: Professors recognise that student participation is an important aspect of academic achievement. They believe that STAD, with its cooperative learning model, can considerably enhance involvement, particularly in diverse classes where student engagement levels vary greatly. One professor stated, "In our context, where classes can be passive and centered around

teachers, STAD encourages every student to participate actively." This is essential for ensuring that learning is a shared duty rather than an individual activity."

Improved Academic Performance: Another professor stated that prior small-scale deployments and research have shown that STAD may considerably improve information retention and understanding. "We've seen hints of this in seminar activities and group projects, but a structured approach like STAD could bring this to a new level, potentially leading to improved exam performances and deeper understanding of complex concepts," the professors said.

Professors all agree that the soft skills gained via STAD are necessary. In Pakistan's employment market, where technical abilities are frequently prioritized, the ability to work successfully in a team, communicate clearly, and lead is recognized as a distinction." Our students occasionally struggle during job interviews in which these abilities are challenged. Regular STAD training might provide them a competitive advantage," said one academic.

Cultural and societal integration: Given the cultural richness of South Punjab, the teachers view STAD as a way to foster greater compassion and understanding among students from all backgrounds. "This technique could be particularly powerful in promoting social integration in a region where social gaps can be determined,"

Implementing STAD Curriculum: Challenges and Barriers

Rigidity and Time constraints: Professors all agree that the most difficult challenge is the rigidity of the current curriculum, as well as the pressure to cover huge syllabi in short periods of time. "Incorporating STAD means reducing the speed at which we cover the syllabus, which is a significant shift from current practices,"

- a) **Large class sizes:** Handling huge courses is a practical difficulty that all three teachers recognize. "The difficulties of managing group work effectively in classes of over 50 students can be challenging without additional support,"
- b) **Lack of resources:** Insufficient resources, such as materials and space, are viewed as severe impediments. "We need more than just enthusiasm; we need materials, space, and perhaps more importantly, training in these techniques," they went on to say.
- c) **Resistance to Change:**

Everyone involved reported some amount of resistance from colleagues and students, primarily because of their comfort with traditional procedures. "There's a

definite motion, a comfort with the 'known' that's hard to overcome without showing clear, immediate benefits,"

3. Aligning STAD to Learning Objectives and Content Areas

The professors propose a planned, progressive incorporation of STAD, beginning with areas that promote active and collaborative learning. "Languages and social sciences are ideal starting points, where the impact of enhanced communication and collaboration can be directly observed,"

A customizable strategy was suggested, in which STAD might be employed in less dense areas of the curriculum or when interactive learning may considerably improve knowledge. "We could start with smaller, less critical topics to assess effectiveness before a full-scale implementation,"

4. Professional Development and Training Opportunities

There is agreement on the need of quality training and professional development opportunities. "Workshops, online modules, and especially individual mentoring can play an essential part in equipping teachers with the necessary skills,". The notion of establishing a support network inside the institution where teachers may share their experiences and techniques was also mentioned as a possible strategy to promote a supportive environment for STAD adoption.

4.5.1 Practicality of incorporating STAD in Pakistani ESL classroom

1. Increased Student Engagement and Participation: STAD's cooperative learning approach actively engages students by forming small groups in which each member is accountable for both their own and the group's learning. In classrooms, where student motivation levels fluctuate greatly, STAD encourages constant engagement, making sure that inactive students become active participants. This interaction is necessary in situations when typical rote learning frequently fails to develop interest or encourage in-depth comprehension.

2. Improved Academic Performance: A number of studies have proved that STAD improves retention, understanding, and application of the learnt topics. In Multan, where educational institutions frequently struggle with performance issues, including STAD might lead to an increase in academic performance. By creating an

environment in which students explain topics to one another, the strategy improves understanding and memory retention, covering gaps that traditional teaching techniques may create.

3. Soft Skills Development: STAD's group dynamics naturally use critical soft skills including teamwork, communication, problem-solving, and leadership. These talents are very useful in Pakistan's labor market, where interpersonal skills are valued together with technical skills. Students in South Punjab can greatly improve their employability and social mobility by developing these soft skills by daily classroom interactions.

4. Cultural and Social Integration: Multan's culturally diverse environment is excellent for adopting STAD, which encourages mutual respect among students from all backgrounds. Working closely together teaches students to accept other points of view, that results in a complete and unbiased classroom environment. This social integration is very important in areas like South Punjab, where social interaction may lead to greater communal harmony.

4.5.2 Limitations for Implementing STAD in Pakistan

Curriculum Rigidity and Time Constraints: The present curriculum at Multan's colleges is frequently rigorous, with a strong emphasis on teaching a wide range of topics in a small amount of time. Incorporating STAD, which demands time for group activities and debates, may be perceived as a barrier to completing the curriculum. Overcoming this obstacle necessitates structural adjustments to the curriculum that allow for greater flexibility in interactive learning.

- a) **Larger than usual class sizes:** The prevalence of a large number of students in the class at government institutions might make it difficult to organize STAD activities effectively. Group work in such settings becomes logically difficult to monitor and facilitate. Addressing this issue might involve hiring more teaching assistants or dividing courses into smaller sections to allow for more effective group interactions.
- b) **Resource shortage:** Successful STAD implementation necessitates the availability of specific resources, such as group activity materials, group learning space, and educator training. In resource-constrained environments, such as those found in South Punjab, protecting these resources necessitates

both financial investment and new solutions, such as digital tools and community collaborations.

- c) **Accepting change:** There is typically tremendous resistance within educational institutions to implementing innovative teaching approaches. Teachers and students may be resistant to such tactics because they are unfamiliar with their advantages or are uncomfortable with new approaches. Overcoming this obstacle requires thorough awareness efforts, demonstration projects, and success stories that demonstrate STAD's effectiveness.

4.5.3 Aligning STAD to Learning Objectives and Content Areas

Implementing STAD does not need a complete reconstruction of the curriculum. It can be progressively implemented, beginning with courses that mold themselves readily to group activity, such as languages and social sciences. Teachers might be encouraged to discover certain themes where STAD can improve comprehension and then extend its use depending on success in these areas. Furthermore, tailoring STAD exercises to closely link to the learning objectives can elevate this approach from an add-on to a critical component of the educational process, smoothly incorporated into everyday classes.

Training and Development

For STAD to be implemented effectively, teachers must not only be knowledgeable with the approach but also proficient at enabling it. Regular workshops and training programmes, ideally sponsored by educational institutions or in collaboration with non-governmental organizations (NGOs), can give the required skills. Furthermore, online training modules designed to address the unique issues of rural or underserved locations can provide scalable and cost-effective training options. Individual mentorship, in which more experienced teachers coach their colleagues, can also help to build skills and integrate STAD into regular teaching methods.

4.5.4 Summary

Incorporating STAD into the curriculum at Multan's government institutions has the potential to improve educational experiences and outcomes. While there are certain limitations, the potential benefits ranging from higher academic achievement to improved soft skills and social integration make a strong case for its implementation.

STAD, with careful planning, commitment to professional development, and deliberate curriculum revisions, has the potential to be a game changer in South Punjab educational reform

CHAPTER 5

CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

In the previous chapter, the researcher analyzed the pre and post-tests of 60 students using the mentioned theories, including Word Improvement by Kant (2001), Rules for Vocabulary Teaching and Building, Social Constructivism, and Cooperative Learning Theories. The main focus was on learning outcomes such as vocabulary retention, comprehension, and making use of synonymous vocabulary. In this chapter, the researcher presents the study's findings, addresses the research questions and concludes with a discussion of the outcomes. It provided how different teaching approaches affect vocabulary learning, retention, and comprehension by using statistical and analytical tools to assess the effectiveness of the STAD (Student Teams Achievement Divisions) in detail. The present research compares STAD with traditional methodologies such as Communicative Language Teaching (CLT) and other typical approaches such as Grammar-Translation and Direct methods across many stages of vocabulary acquisition, from high to low frequency. The study shows significant improvements in academic achievement and the interpersonal and cognitive skills development in the experimental group taught using STAD. Regression analysis and paired samples t-test results directs towards visible differences between the experimental and control groups. The experimental group showed an increase in scores from the pre-test to the post-test (19.33 to 34.40), with a mean difference of -15.067 and a significant t-value (-6.030, $df = 29$, $p < 0.001$). In comparison, the control group showed no significant changes (17.40 to 17.47). Regression analysis further supported these results, showing that teamwork exhibited nearly 34% of the difference in the experimental group's scores (F-statistic of 29.933, $p < 0.001$). This chapter combines the analysis to provide insights into the effectiveness of the STAD technique, considering its bigger impact on curriculum development and giving directions for future research.

5.2 Conclusion

The entire study gives a detailed analysis of how different teaching methods affect vocabulary learning, retention, and comprehension. It has been done by using a

range of statistical and analytical tools to clarify the effectiveness of the STAD technique in particular. The research compared traditional methodologies like Communicative Language Teaching (CLT), Grammar-Translation and Direct Method with STAD. Specifically, in STAD, the elements of individual accountability, motivation, and group dynamics management have showed a remarkable improvement in academic achievement as well as the development of interpersonal and cognitive abilities outside of the classroom.

Regression analysis and paired samples t-test results showed major differences between the experimental and control groups. The STAD approach was applied to the experimental group, and the results showed an improvement from the pre-test to the post-test (19.33 to 34.40), with a mean difference of -15.067 and a very significant t-value (-6.030, $df = 29$, $p < 0.001$). This was in done comparison with the control group, where there were no significant differences in the score of the pre-test and the post-test (17.40 to 17.47), representing the effectiveness of the intervention used for the experimental group. With an F-statistic of 29.933 ($p < 0.001$), the regression analysis show cased these results even more by showing that teamwork could account for almost 34% of the variability in the experimental group's scores. This directs towards a direct connection between performance of students and increase in the use of the STAD method.

Furthermore, the One-Sample Kolmogorov-Smirnov Test made sure that the scores within the experimental group were normally distributed. Though, the p-value of 0.022 indicated that statistical tools should be considered necessary with parametric testing. In addition, a research gap on the effectiveness of vocabulary teaching techniques particularly in non-traditional settings in South Punjab was found in the study, which was addressed by carefully contrasting the results of various Teaching techniques. The experimental group's encouraging and statistically significant results supports both the integration of more interactive, student-centered learning strategies that can seriously improve involvement and academic outcomes, as well as a re-evaluation of current vocabulary teaching practices. These findings have an educational significance as well as being statistically significant. The findings suggests that teachers should establish more stimulating, encouraging, and productive learning environments by implementation of cooperative learning techniques like STAD. Additionally, to improve academic performance, these kinds of settings help students

grow critical thinking, cooperation, and communication skills all of which are important to be successful in college.

The current study gives strong proof that modern teaching approaches, specially that promote collaborative learning and active engagement, clearly beats traditional methods in terms of improving vocabulary learning results. These approaches have a positive effect on students' motivation, engagement, and satisfaction, which suggests the possibility of using them more extensively in the classroom to enhance learning in general and promote long-term growth in the classroom and learning vocabulary. The implications for curriculum development are important, and by this suggests that educational system should think about deeper integrations of these type of teaching techniques to increase learning outcomes and to promote social skills in different learning environments.

5.3 Future Recommendations

1. Train Teachers on Group Dynamics and Benefits of Collaborative Learning

Teacher training on group dynamics and the benefits of collaborative learning can be achieved through targeted professional development programs. This could involve workshops led by experts in collaborative methodologies, where teachers are not only lectured but also participate in mock sessions to experience group dynamics first-hand. In these sessions, teachers would learn about key group roles, the stages of group development, and strategies for managing diverse classroom interactions. Role-playing and case studies could be used to discover possible challenges and solutions in real-world settings. Additionally, interactive learning programs could be established, where teachers observe each other's classes and provide feedback on team building techniques. Online courses and webinars can also increase personal training, that provides flexibility and continuing support for teachers as they use collaborative learning strategies in their classes.

2. To Encourage Students to Perform More Group Activities During Routine Classes

Encouraging students to involve in more group activities during routine classes can begin with designing class sessions around collective projects and problem-solving tasks. Teachers can include small group discussions, peer-review sessions, and team-based assignments into their day-to-day curriculum. The main part is to create a

classroom culture where collaboration is the norm, not the exception. To do this effectively, teachers might set clear prospects for group work, establish group standards, and switch roles within teams to make sure active involvement from all students. Strategies such as gamification can also play a positive role here, where group achievements are rewarded as well as recognized, therefore promoting collaborative efforts. Teachers might also use digital platforms that can facilitate group work, that allows students to collaborate on projects outside of the classroom and develop digital communication skills.

3. Workshops and Seminars for Students Can Elaborate the Importance of STAD and Its Role in Modern Pedagogy

Workshops, seminars, trainings can also be powerful tools for letting students know about the STAD model and its importance in current education. To manage these effectively, teachers and admins can call expert trainers in cooperative learning to share their visions and research findings on the STAD technique's usefulness. Interactive sessions where students are involved in tasks that follow STAD can prove the real-world aspects and allow students to experience the benefits themselves. During these seminars, the trainers must use multimedia presentations, case studies, and references from other students to show how STAD positively impacts learning outcomes. Furthermore, discussions could be on how students can understand the collaborative nature of the modern workforce and global citizenship. These workshops can also answer how practices involving STAD can help with critical thinking, problem-solving, and social skills, stressing the significance of these skills in an interconnected world.

6. REFERENCES

Aitchison, J. (2012). *Words in the Mind: An Introduction to the Mental Lexicon*. 4th ed. Wiley-Blackwell.

Alijanian, A. (2012). The impact of the student team achievement division (STAD) approach on the English achievement of Iranian third-grade junior high school students. *International Journal of Humanities and Social Science*, 2(20), 45-52.

Al-Zu'bi, M. A., & Kitishat, A.R. (2016). The impact of STAD strategy on FL reading achievement of low-, average-, and high-achieving students in Al Balqa Applied University. *ANGLISTICUM. Journal of the Association-Institute for English Language and American Studies*, 2(5), 96-109.

Ariffin, A. (2017). Effects of student collaboration on ESL learner's vocabulary development. *Asian Journal of University Education*, 13(1), 73-85.

Bloomfield, L. (1933). *Language*. New York: Henry Holt and Company.

Canale, M., & Swain, M. (1980). Theoretical bases of communicative approaches to second language teaching and testing. *Applied Linguistics*, 1(1), 1-47.

Cepeda, N. J., Pashler, H., Vul, E., Wixted, J. T., & Rohrer, D. (2006). Distributed practice in verbal recall tasks: A review and quantitative synthesis. *Psychological Bulletin*, 132(3), 354-380.

Chaudhry, A. (2010). Language Teaching Methods in Pakistan: Examination of the Underlying Assumptions. *Journal of Education and Practice*, 2(3), 1-8.

Chen, Q. (2019). The role of technology in vocabulary learning. *Journal of Language Teaching and Research*, 10(3), 555-561. <https://doi.org/10.17507/jltr.1003.11>

Christopher, Klein. (1999). *Let Start to Master Your Vocabulary*. Vol IV. Teaching English Forum.

Clark, J. M., & Paivio, A. (1991). Dual coding theory and education. *Educational Psychology Review*, 3(3), 149-210.

Coxhead, A. (2000). A new academic word list. *TESOL Quarterly*, 34(2), 213-238.

Craik, F. I. M., & Lockhart, R. S. (1972). Levels of processing: A framework for memory research. *Journal of Verbal Learning and Verbal Behavior*, 11(6), 671-684.

Craik, F. I. M., & Tulving, E. (1975). Depth of processing and the retention of words in episodic memory. *Journal of Experimental Psychology: General*, 104(3), 268-294.

Crystal, D. (1987). *The Cambridge Encyclopedia of Language*. Cambridge University Press.

Doe, J. (2021). Moving beyond rote: The efficacy of interactive learning in vocabulary acquisition. *Modern Language Journal*.

Dongoran, T. (1996) *Seminar on English Teaching*. Medan: IKIP Medan.

Ebbinghaus, H. (1885/1913). *Memory: A contribution to experimental psychology*. Ann Arbor, MI: University of Michigan Press.

Ellis, R. (2003). *Task-based Language Learning and Teaching*. Oxford: Oxford University Press.

Faramarz, S., & Mowlaie, B. (2017). The Effect of Using the Student Teams Achievement Division (STAD) Technique on Improving Iranian Elementary EFL Learner's Reading Comprehension. *Journal of Applied Linguistic and Language Research*, 4, 51-64.

Fekri, N. (2016). Investigating the Effect of Cooperative Learning and Competitive Learning strategies on the English Vocabulary Development of Iranian Intermediate EFL Learners. *English Language Teaching*, 9(11), 6.

Ghazali, Z., & Imran, N. K. (2014). The effects of frequency on vocabulary acquisition. *International Journal of Education and Research*, 2(7), 261-272.

Ghufron, S., Nafiah, Syahrudin, Kaswadi, & Mustofa. (2023). The effect of STAD-type cooperative learning based on a learning tool on critical thinking ability in writing materials. *International Journal of Instruction*, 6(1), 61–84. <https://e-iji.net/ats/index.php/pub/article/view/173>.

Glomo-Narzoles, D.T. (2015). Student Team Achievement Division (STAD): Its Effect on The Academic Performance of EFL Learners. *American Research Journal of English and Literature*. <https://doi.org/10.21694/2378-9026.15013>

Green, T. D. (2019). The engagement factor: Interactive learning and language acquisition. Language Learning Press.

Groot, P. J. M. (2000). Computer Assisted Language Learning: Context and Conceptualization. Oxford: Oxford University Press.

Hafniati, 2020. Developing of Thesaurus Software to Increase the Writing Quality of the Thesis of the Students at the German Language Department. *Britain International of Linguistics, Arts and Education Journal*, 346-3

Harmer, J. (2007). *The Practice of English Language Teaching* (4th ed.). Pearson Longman.

Hattie, J., & Timperley, H. (2007). The power of feedback. *Review of Educational Research*, 77(1), 81-112.

Ishtiaq, M., Ali, Z., & Salem, M. (2017). An experimental study of the effect of Student Teams Achievement Divisions (STAD) on vocabulary learning of EFL adult learners. *Arab World English Journal*, 8(3).

James, H. (1981). *Mastery Learning*. Chicago: Reinhart- Winston.

John, Burn. (2000). *Counting Words Every Day*. Vol. XII. Teaching English Forum.

Johnson, D. W., & Johnson, R. T. (1989). *Cooperation and competition: Theory and research*. Interaction Book Company.

Johnson, D. W., & Johnson, R. T. (1990). Cooperative learning and achievement. In S. Sharan (Ed.), *Cooperative learning: Theory and research* (pp. 23-37). Praeger.

Johnson, D. W., & Johnson, R. T. (1999). *Learning together and alone: Cooperative, competitive, and individualistic learning*. Allyn and Bacon.

Kagan, S. (1992). *Cooperative learning*. Resources for Teachers.

Kagan, S. (1994). *Cooperative Learning*. Kagan Publishing.

Kants, R. 2001. *Improvement Your Ability*. London: Longman.

Karpicke, J. D., & Roediger, H. L. (2008). The critical importance of retrieval for learning. *Science*, 319(5865), 966-968.

Karpicke, J. D., & Roediger, H. L. (2008). The critical importance of retrieval for learning. *Science*, 319(5865), 966-968.

Khan, M. A., & Inamullah, H. M. (2011). The impact of cooperative learning approach, student's team achievement division (STAD), versus traditional lecture method on the learning of chemistry at grade-12 level in Khyber Pukhtunkhwa, Pakistan. *European Journal of Social Sciences*, 22(2), 301-308.

Kim, Y., & McDonough, K. (2011). Using pre-task modeling to encourage collaborative learning opportunities. *Language Teaching Research*, 15(2), 183-199.

Larsen-Freeman, D. (2000). *Techniques and Principles in Language Teaching*. Oxford University Press.

Laufer, B., & Rozovski-Roitblat, B. (2011). Incidental vocabulary acquisition: The effects of task type, word occurrence and their combination. *Language Teaching Research*, 15(4), 391-411.

Li, X., & Li, Y. (2015). Effects of STAD on vocabulary acquisition of Chinese junior middle school students. *Journal of Language Teaching and Research*, 6(4), 728-734.

Lightbown, P. M., & Spada, N. (2006). *How Languages are Learned* (3rd ed.). Oxford University Press.

Long, M. H. (1996). The role of the linguistic environment in second language acquisition. In W. C. Ritchie & T. K. Bhatia (Eds.), *Handbook of second language acquisition* (pp. 413-468). San Diego: Academic Press.

Lopez, M., & Miller, R. (2020). Cooperative learning and language acquisition: Implementing interaction-based tasks. *Journal of Applied Linguistics and Language Research*, 7(2), 1-13.

Majoka, M., Khan, M., & Syed, I. H. S. (2011). Effectiveness of Cooperative Learning for Teaching Social Studies to Students with Different Ability at Elementary Level. *Interdisciplinary Journal of Contemporary Research in Business*, 2, 486-497.

Malik, N. (2018). Trends in Language Teaching in Pakistan. *Pakistani Journal of Language Studies*, 1(1), 34-45.

Mansoor, S. (2005). The Status and Role of Regional Languages in Higher Education in Pakistan. *Journal of Multilingual and Multicultural Development*, 26(2), 187-202.

Mustafa, F. (2016). Contextual Teaching and Learning Approach of Mathematics in Primary Schools. *Journal of Education and Practice*, 7(24), 115-123.

Nadeem, M. M., & Aslam, H. D. (2018). Impact of Student Teams Achievement Division (STAD) technique on the writing and speaking skills of ESL learners. *Journal of Language and Linguistic Studies*, 14(1), 226-241.

Nation, I. S. P. (2001). Learning vocabulary in another language. Cambridge University Press.

Nation, I. S. P. (2001). *Learning Vocabulary in Another Language*. Cambridge University Press.

Nation, I. S. P. (2001). *Learning Vocabulary in Another Language*. Cambridge: Cambridge University Press.

Nation, P. (2006). How large a vocabulary is needed for reading and listening? *The Canadian Modern Language Review*, 63(1), 59-82.

Nation, P., & Webb, S. (2017). *Researching and Analyzing Vocabulary*. Boston: Heinle, Cengage Learning.

Nikou, F. R., Bonyadi, A., & Ebrahimi, K. (2014). The effect of student team-achievement division (STAD) on language achievement of Iranian EFL students across gender. *European Online Journal of Natural and Social Sciences*, 3(4), 936-949. ISSN 1805-3602

Novitarini, L. (2009). The use of STAD technique to improve the student's skill in writing descriptive text. Semarang State University.

Patel, R., & Lee, H. (2021). Gamification in language learning: A systematic review. *TESOL Quarterly*, 55(1), 102-128. <https://doi.org/10.1002/tesq.548>

Rafique, A. Mansoor, Z. Bint-e-Mahmood, T. (2021) The Effectiveness of Cooperative Learning Approach in Vocabulary Development of Intermediate Students. *Pakistan Journal of Educational Research*, vol. 4, issue, 3.

Ray, G. 1988. *Vocabulary*. Singapore: Pelican Inc.

Richards, J. C., & Rodgers, T. S. (2001). *Approaches and Methods in Language Teaching*. Cambridge University Press.

Richards, J. C., & Rodgers, T. S. (2001). *Approaches and Methods in Language Teaching* (2nd ed.). Cambridge University Press.

Samsuddin, Ananda, & Rusydi. (2019). Communication of school heads in improving education performance in SMA Plus private vocational school, Al-Azhar Medan. *Britain International of Linguistics, Arts and Education Sciences*, 1(1), 8-15

Schmitt, N. (2008). Review article: Instructed second language vocabulary learning. *Language Teaching Research*, 12(3), 329-363.

Slavin, R. E. (1980). Cooperative Learning. *Review of Educational Research*, 50(2), 315-342.

Slavin, R. E. (1983). Cooperative learning. *Educational Leadership*, 41(3), 71-82.

Slavin, R. E. (1986). Best-Evidence Synthesis: An Alternative to Meta-Analytic and Traditional Reviews. *Educational Researcher*, 15(9), 5-11.

Slavin, R. E. (1994). *Cooperative Learning: Theory, Research, and Practice*. Englewood Cliffs, NJ: Prentice-Hall.

Slavin, R. E. (1995). *Cooperative Learning: Theory, Research, and Practice* (2nd ed.). Boston: Allyn and Bacon.

Slavin, R. E., & Cooper, R. (1999). Improving intergroup relations: Lessons learned from cooperative learning programs. *Journal of Social Issues*, 55(4), 647-663.

Smith, L., & Johnson, M. (2020). *Active learning and language: An empirical study*. Oxford University Press.

Taylor, E., Anderson, P., & Hathaway, T. (2018). Embodying language in action: The advantages of an active learning approach for foreign language instruction. *Journal of Physical and Practical Learning*, 2(1), 24-35.

Thornbury, S. (2002). *How to Teach Vocabulary*. Pearson Longman.

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

Wallace, M. 1984. *Teaching Vocabulary*. London: Heinemann International.

Wardani, R. P., & Hermawati, D. M. S. (2016). Improving the Tenth Grade Student's Speaking Ability by Using STAD at SMKN 5 Jember. In International Conference on Education Proceeding (Vol. 1, pp. 79-88). <http://repository.unej.ac.id/handle/123456789/63200>

Webb, S., & Nation, P. (2017). How Vocabulary is Learned. Oxford: Oxford University Press.

Wong, C. L. (2019). The social dimension of language learning: Peer collaboration and language acquisition. *Language Teaching Research*, 23(4), 474-490. <https://doi.org/10.1177/1362168818765316>

Wyk, M. M. V. (2012). The Effect of the STAD-Cooperative Learning Method on Student Achievement, Attitude and Motivation in Economics Education. *Journal of Social Science*, 33, 261-270.

Zarei, A.A. (2012). The Effects of STAD and CIRC on L2 Reading Comprehension and Vocabulary Learning. *Frontiers of Language and Teaching*, Vol. 3, 161-173.

APPENDIX-A

Vocabulary Test for Control and Experimental Group

Pre Test

Q. Tick/Encircle the correct option.

1. Mr Arther stared at he, appalled.
a) Terrified b) careless c) encouraged d) happy
2. Mr Arthur tossed the pieces onto the table.
a) Twisted b) put c) scattered d) hurled
3. Norma gestured vaguely.
a) sadly b) strongly c) carelessly d) clearly
4. My father cut a wisp of alfalfa.
a) Branch b) piece c) part d) thin stem
5. He began to climb the second bluff.
a) hill b) ground c) tree d) step
6. I had to smell this foam again:
a) flower b) fruit c) scent d) rich soil
7. On the lower side, there were tall stalwart plants.
a) Thick b) small c) green d) strong
8. The wind blew as if to flake away their identities.
a) Weaken b) strengthen c) fly away d) take away
9. He was drenched in the hotness of his fear.
a) Dry b) wet c) troubled d) pleased
10. The men felt their hair flutter.
a) Tight b) fine c) stir d) stiff
11. Laura stumbled through the settlement.

a) Rushed b) Passed c) staggered d) walked

12. Cora was golden and slender as her daughter.

a) fat b) dark c) thin d) bulky

13. She permitted him to stoop and pick up the purse.

a) sit b) fall down c) stand d) bend

14. The lady's kind behavior embarrassed the boy.

a) frightened b) Pleased c) Put to shame d) encouraged

15. Then she frowned, not knowing she frowned.

a) Looked happy b) looked sad c) looked angry d) upset

16. You set down while I fix us something to eat.

a) Store b) attach c) make right d) Jam

17. The woman did not ask the boy about his folks.

a) Friends b) relatives c) parents d) people

18. The mayor was a stout, serious man.

a) Weak b) tall c) fat d) healthy

19. All they said was, "You old rascal!"

a) Naughty man b) dangerous c) mean person d) good person

20. Mr. Hubert was choked with indignation.

a) Humiliation b) anger c) shame d) pain

21. Mr. Hubert met with incredulity.

a) Trust b) distrust c) dishonour d) disgrace

22. A flood in its wrath carried away the people.

a) Power b) rage c) speed d) flow

23. Mr. Hubert reiterated his innocence.

a) Repeated b) proved c) stated d) announced

24. Hubert was in triumph.

a) Hopelessness b) disappointment c) victory d) defeat

25. The sick girl was strong like a heifer.

a) Young bull b) young cow c) young bear d) young cub

26. The young girl shrieked wildly.

a) Resisted b) breathed c) screamed d) danced

27. Adwin Amold describes Gulistan in culinary terms.

a) Moral b) Morale c) battle d) kitchen

28. The slave had never experienced any calamity.

a) Great distress b) sea water c) voyage d) happiness

29. What harm could arise from such a trifling demand?

a) Important b) ordinary c) simple d) grand

30. The king summoned the parents of the boy.

a) Consulted b) sent for c) suggested d) summarize

31. All hopes of the King's recovery vanished.

a) Appeared b) tried c) disappeared d) approached

32. The quack pretended to be a doctor.

a) Traveller b) imposter c) compounder d) camel man

33. The smoke was rising from myriads of fires.

a) Burning b) flames c) very great number d) heaps

34. I hunted all over the town to find the chain.

a) Ran b) walked c) searched d) visited

35. Love and large-hearted giving can leave deep marks.

a) Sincere b) pleasant c) proud d) generous

36. Leaving the shop he vowed never to use tobacco.

a) Declare b) decided c) told d) promised

37. That day Abul took a momentous decision.

a) Momentary b) important c) delayed d) urgent

38. The people converged on the mall road.

a) Moved b) walked c) gathered d) appeared

39. The pavements were thronged with pedestrians.

a) Packe b) covered c) surrounded d) thrown

40. The young man resumed his promenade.

a) Continued b) started c) refused d) declared

41. What is this gadget, anyway? Asked Authur.

a) Box b) device c) problem d) proposal

42. Norma made a scoffing sound.

a) Interesting b) endangered c) resounding d) taunting

43. You have not been prowling up in those ruins.

a) Running b) moving about c) sitting d) jumping

44. They were stranded on Mars.

a) staying b) worried c) left alone d) changed

45. Mr. Hubert furiously lifted his hand.

a) joyously b) angrily c) scarcely d) quietly

46. She looked at the second Man suspiciously.

a) Surprisingly b) politely C) doubtfully d) angrily

47. The flashlight was illuminating the front door.

a) striking b) cutting through c) brightening d) darkening

48. I'll bet, she is smarter than you.

a) slim b) stronger c) cleverer d) healthier

49. Who learn to walk beneath a weight?

a) with b) without c) over d) under

50. The gradient is against her, but she's on time.

a) rock b) track c) slope d) signal

Vocabulary Test for Control and Experimental Group

Post Test

Q. Tick/Encircle the correct option.

1. Mr Arther stared at he, appalled.

a) Terrified b) careless c) encouraged d) happy

2. Mr Arthur tossed the pieces onto the table.

a) Twisted b) put c) scattered d) hurled

3. Norma gestured vaguely.

a) sadly b) strongly c) carelessly d) clearly

4. My father cut a wisp of alfalfa.

a) Branch b) piece c) part d) thin stem

5. He began to climb the second bluff.

a) hill b) ground c) tree d) step

6. I had to smell this foam again:

a) flower b) fruit c) scent d) rich soil

7. On the lower side, there were tall stalwart plants.

a) Thick b) small c) green d) strong

8. The wind blew as if to flake away their identities.

- a) Weaken b) strengthen c) fly away d) take away

9. He was drenched in the hotness of his fear.

- a) Dry b) wet c) troubled d) pleased

10. The men felt their hair flutter.

- a) Tight b) fine c) stir d) stiff

11. Laura stumbled through the settlement.

- a) Rushed b) Passed c) staggered d) walked

12. Cora was golden and slender as her daughter.

- a) fat b) dark c) thin d) bulky

13. She permitted him to stoop and pick up the purse.

- a) sit b) fall down c) stand d) bend

14. The lady's kind behavior embarrassed the boy.

- a) frightened b) Pleased c) Put to shame d) encouraged

15. Then she frowned, not knowing she frowned.

- a) Looked happy b) looked sad c) looked angry d) upset

16. You set down while I fix us something to eat.

- a) Store b) attach c) make right d) Jam

17. The woman did not ask the boy about his folks.

- a) Friends b) relatives c) parents d) people

18. The mayor was a stout, serious man.

- a) Weak b) tall c) fat d) healthy

19. All they said was, "You old rascal!"

- a) Naughty man b) dangerous c) mean person d) good person

20. Mr. Hubert was choked with indignation.

- a) Humiliation b) anger c) shame d) pain

21. Mr. Hubert met with incredulity.

- a) Trust b) distrust c) dishonour d) disgrace

22. A flood in its wrath carried away the people.

- a) Power b) rage c) speed d) flow

23. Mr. Hubert reiterated his innocence.

- a) Repeated b) proved c) stated d) announced

24. Hubert was in triumph.

- a) Hopelessness b) disappointment c) victory d) defeat

25. The sick girl was strong like a heifer.

- a) Young bull b) young cow c) young bear d) young cub

26. The young girl shrieked wildly.

- a) Resisted b) breathed c) screamed d) danced

27. Adwin Amold describes Gulistan in culinary terms.

- a) Moral b) Morale c) battle d) kitchen

28. The slave had never experienced any calamity.

- a) Great distress b) sea water c) voyage d) happiness

29. What harm could arise from such a trifling demand?

- a) Important b) ordinary c) simple d) grand

30. The king summoned the parents of the boy.

- a) Consulted b) sent for c) suggested d) summarize

31. All hopes of the King's recovery vanished.

- a) Appeared b) tried c) disappeared d) approached

32. The quack pretended to be a doctor.

- a) Traveller b) imposter c) compounder d) camel man

33. The smoke was rising from myriads of fires.

- a) Burning b) flames c) very great number d) heaps

34. I hunted all over the town to find the chain.

- a) Ran b) walked c) searched d) visited

35. Love and large-hearted giving can leave deep marks.

- a) Sincere b) pleasant c) proud d) generous

36. Leaving the shop he vowed never to use tobacco.

- a) Declare b) decided c) told d) promised

37. That day Abul took a momentous decision.

- a) Momentary b) important c) delayed d) urgent

38. The people converged on the mall road.

- a) Moved b) walked c) gathered d) appeared

39. The pavements were thronged with pedestrians.

- a) Packe b) covered c) surrounded d) thrown

40. The young man resumed his promenade.

- a) Continued b) started c) refused d) declared

41. What is this gadget, anyway? Asked Authur.

- a) Box b) device c) problem d) proposal

42. Norma made a scoffing sound.

- a) Interesting b) endangered c) resounding d) taunting

43. You have not been prowling up in those ruins.

- a) Running b) moving about c) sitting d) jumping

44. They were stranded on Mars.

- a) staying b) worried c) left alone d) changed

45. Mr. Hubert furiously lifted his hand.

- a) joyously b) angrily c) scarcely d) quietly

46. She looked at the second Man suspiciously.

- a) Surprisingly b) politely C) doubtfully d) angrily

47. The flashlight was illuminating the front door.

- a) striking b) cutting through c) brightening d) darkening

48. I'll bet, she is smarter than you.

- a) slim b) stronger c) cleverer d) healthier

49. Who learn to walk beneath a weight?

- a) with b) without c) over d) under

50. The gradient is against her, but she's on time.

- a) rock b) track c) slope d) signal

APPENDIX-B

Lesson Plan

The lesson plan used the Student Teams Achievement Divisions (STAD) approach to enhance vocabulary building for Intermediate 1st Year students. Each week focused on specific activities and assessments to reinforce vocabulary learning in an engaging way. The primary objective was to improve vocabulary comprehension, usage, and retention through collaborative learning.

Week 1: Introduction & Team Formation

Objective: Introduced STAD and created a collaborative learning environment.

Activities:

Introduction to Vocabulary Goals: Discussed the importance of vocabulary in comprehension and expression.

Team Formation: Divided students into diverse teams, ensuring a mix of skill levels.

Pretest: Conducted a vocabulary assessment to measure students' initial levels.

Introductory Activity: Introduced 15 vocabulary words from the syllabus.

Team Discussion: Students discussed word meanings, parts of speech, and example sentences.

Assessment:

Conducted a short quiz on the introduced vocabulary.

Week 2: Definitions and Usage in Context

Objective: Built understanding of word meanings and contextual usage.

Activities:

Team Learning Sessions: Provided 15 new vocabulary words, discussing definitions, synonyms, and antonyms.

Contextual Sentences: Teams created sentences for each word and shared with the class.

Pair Activity: Within teams, pairs quizzed each other on definitions and usage.

Assessment:

Team quiz on word meanings and sentence creation.

Week 3: Enhancing Vocabulary through Synonyms and Antonyms

Objective: Deepened vocabulary understanding with synonyms and antonyms.

Activities:

Word Association: Teams brainstormed synonyms and antonyms for the week's 15 vocabulary words.

Contextual Application: Used the words in different contexts (e.g., academic, informal).

Assessment:

Team quiz focusing on synonyms and antonyms.

Week 4: Spelling, Pronunciation, and Usage Practice

Objective: Improved accuracy in spelling, pronunciation, and sentence-level usage.

Activities:

Spelling Bees: Teams competed in spelling words from previous weeks.

Pronunciation Drill: Practiced correct pronunciation with peer feedback.

Usage Challenge: Teams took turns using words in different sentences.

Assessment:

Individual and team quizzes on spelling and pronunciation.

Week 5: Creative Expression and Advanced Usage

Objective: Applied vocabulary creatively in written and spoken form.

Activities:

Story Writing: Each team wrote a short story incorporating at least 10 vocabulary words.

Roleplays: Teams roleplayed scenarios using vocabulary words in dialogue.

Peer Review: Teams exchanged stories and provided constructive feedback.

Assessment:

Assessed stories and roleplays for vocabulary usage accuracy.

Week 6: Review, Assessment, and Reflection

Objective: Reinforced learned vocabulary and assessed overall progress.

Activities:

Team Review Session: Teams reviewed all vocabulary words, focusing on challenging ones.

Final Test: Conducted a comprehensive test on all vocabulary words covered.

Reflection: Teams discussed what they had learned and identified areas for improvement.

Assessment:

Final test results contributed to individual and team scores.

Additional Practices:

Rewards and Recognition: Acknowledged team achievements weekly to maintain motivation.

Peer Tutoring: Encouraged stronger students to support their teammates.

Regular Feedback: Provided feedback on vocabulary usage and pronunciation throughout the intervention.