A STUDY ON IMPROVEMENT OF STUDENTS' READING SKILL THROUGH COOPERATIVE LEARNING STRATEGIES USING JIGSAW AND STAD

BY

Mishail Khan

NATIONAL UNIVERSITY OF MODERN LANGUAGES

MULTAN CAMPUS

September, 2025

A STUDY ON IMPROVEMENT OF STUDENTS' READING SKILL THROUGH COOPERATIVE LEARNING STRATEGIES USING JIGSAW AND STAD

By

MISHAIL KHAN

BS English, National University of Modern Languages, 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, MULTAN CAMPUS

NATIONAL UNIVERSITY OF MODERN LANGUAGESFACULTY OF ARTS & HUMANITIES

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: A Study on Improvement of Students Reading Skill Through Cooperative Learning Strategies Using Jigsaw and STAD

Submitted by: Mishail Khan **Registration#** 57Mphil/Eng/Lng/Mtn/S22

Shaista Shahzadi
Name of Research Supervisor

_____
Signature of Research Supervisor

Dr. Muhammad Akbar Sajid
Name of Head, Department of English

_____
Signature of Head

Dr. Arshad Mahmood
Name of Dean (FAH)

_____
Signature of Dean (FAH)

_____
Date

AUTHOR'S DECLARATION

I, Mishail Khan

Daughter of Ghulam Hussain Khan

Registration # 57Mphil/Eng/Lng/Mtn/S22

Discipline English Linguistics

Candidate of **Master of Philosophy** at the National University of Modern Languages do hereby declare that the thesis **A Study on Improvement of Students' Reading Skill Through Cooperative Learning Strategies Using Jigsaw and STAD** 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

Title: A Study on Improvement of Students Reading Skill Through Cooperative Learning Strategies Using Jigsaw and STAD

Students' English reading comprehension is developed in the classroom through cooperative learning tactics like STAD and jigsaw. Students can grasp concepts in the learning process more readily when they employ cooperative learning practices. Proficiency in reading is essential for utilizing and comprehending the English language. This study set out to investigate how cooperative learning affected the English reading and success of seventh-grade pupils. The total number of pupils enrolled in Grade 7 at Govt. Girls High School Multan was 64 in both sections.The study used a pre-test, post-test, and nonequivalent control group in a quasi-experimental design. The experimental and control groups were chosen at random using the tossing method. Jigsaw and STAD are two cooperative learning methodologies that were used with the experimental group. The control group was instructed by the researcher to utilize a grammatical translation method. The researcher worked hard to create the questionnaire with the assistance of a textbook and specialists who attested to the instrument's validity. The 21st edition of SPSS was utilized for data analysis. A comparison was made between the pre-test and post-tests to determine the average score of the students who received instruction in cooperative learning and grammar- translation. Therefore, it can be said that the Grade 7 students' English reading comprehension is significantly impacted by the Jigsaw and STAD cooperative learning methodologies. The study's conclusions and suggestions for enhancing English language learners' reading proficiency through cooperative learning methods were presented.

TABLE OF CONTENTS

LIST OF TABLES

ACKNOWLEDGEMENTS

I begin by expressing my deepest gratitude to Allah, whose blessings and guidance have been instrumental in my journey to complete this challenging task.I am profoundly thankful to my parents whose unwavering support and encouragement have been the cornerstone of my academic pursuits. Their belief in my abilities and their sacrifices have made this achievement possible. To my supervisor, Mam Shaista Shehzadi, I am deeply thankful to her for her kindness, continuous support, and encouragement throughout my academic journey. Her guidance has been invaluable. Her mentorship has significantly shaped this thesis.

I am grateful to NUML University for providing me with the academic and creative opportunities.

DEDICATION

I dedicate this thesis to my loving family. Your unwavering support and encouragement have been my guiding light throughout this journey. Thank you for believing in me and standing by my side every step of the way.

With love and gratitude,

Mishail Khan

CHAPTER 1
INTRODUCTION

1.1 Background

In today's educational environment, developing strong reading abilities is commonly acknowledged as a prerequisite for both academic achievement and lifelong learning. Even though reading competency is widely acknowledged as important, educators frequently struggle to discover pedagogical strategies that effectively meet the varied learning demands of their pupils. The dynamic and interesting learning experiences required for the best possible development of reading skills may not always be offered by traditional teaching techniques.

Cooperative learning tactics are a potential area that educators are exploring insearch of creative ways to improve their students' reading skills. The collaborative interactions between students that define cooperative learning present a change from standard teaching methods. The application of two cooperative learning strategies Jigsaw and Student Teams-Achievement Divisions (STAD) as a way to enhance students' reading abilities is the particular emphasis of this study.

1.2 Introduction

A fundamental life skill, reading is significant in both daily life and education. Reading is essential for a student's success in the classroom and throughout their educational journey. One kind of semantics that aids in understanding how to write effectively is reading. Possessing reading comprehension opens doors to chances for career advancement and personal growth. Reading plays a significant role in the educational system and affects students' writing and verbal abilities (Bryson, 2003; Barrot, 2016).

Reading involves comprehending messages, making decisions, and developing cooperative skills, which take time to develop. In order to follow the evolving comprehension in academics, readers must expand their vocabulary. Acquiring sufficient knowledge for inquiry and amusement is the goal of reading. The ability to read in English develops gradually via the use of several techniques. The way that English is taught has changed from being teacher-based to being student-based. Both

students and teachers now havethe chance to successfully master English reading skills thanks to this development.

Numerous reading techniques have been studied by researchers to help pupils improve their comprehension while they read in English. According to their findings (Mustafa & Samad, 2015; Ning, 2011), cooperative learning is the best strategy for encouraging students to work in groups and improve their reading skills. A strong student may learn more confidently than a weak student in a regular classroom. In a big classroom, the weaker kids are reluctant to speak and read. Through the use of cooperative learning, students may support one another in expanding their vocabulary and understanding the material. Through the use of cooperative learning strategies, students actively study texts and collaborate with intelligent peers who are happy to assist their less proficient peers. Weak pupils in traditional classrooms are hesitant to read aloud in front of their professors and peers, primarily due to a lack of confidence and an inappropriate accent.

In order to inspire pupils to create a positive attitude and confidence in their ability to read in English, cooperative learning practices are utilized in English reading classrooms. In order to effectively enhance reading abilities and accomplish learning objectives in a classroom setting, teachers only assist and mentor students in using cooperative reading practices (Stevens, 2003; Davakhana & Nazari, 2015). In a similar vein, employing cooperative learning strategies in group projects and student evaluations advances learning. When at least two students work together to complete a standard task, cooperative learning takes place, providing an educational environment. Compared to an instructor-focused approach, cooperative learning offers instructors greater flexibility (Siegel, 2005; Haupt, 2015).

Conventional teaching methods are typically somewhat rigorous and call for individual work. Conversely, human nature necessitates active and productive collaboration with others, which is what cooperative learning demands (Johnson & Johnson, 1994; Kagan 2014). Cooperative learning has been shown to provide positive and advantageous outcomes, such as high morale, productive relationships, student presence, confidence, and motivation, in the majority of research that underwent extensive testing (Johnson & Johnson, 2005; Johnson, 2009; Tran & Lewis, 2012). Research on the cooperative learning model also shows that it benefits students'

academic attainment and is more successful than standard teaching methods (Johnson & Johnson, 1974; Sachs, Candlin, Rose & Shum, 2003; Peterson & Coltrane, 2003).

Studies have shown that cooperativelearning (henceforth CL) produces better results than solo work because it fosters positive relationships among students and increases their excitement for learning (Du, Yu, & Olinzock, 2011; Sachs et al., 2003; Slavin, 1988). Comparably, a large body of research also shows that, in comparison to competitive or individualistic experiences, CL fosters greater academic achievement, more positive student relationships, and a healthier psychological adjustment (Bonaparte, 1990; Cooper& Mueck, 1990; Doymuş,2004; Johnson et al., 1991; Shemshadsara, 2012; Treisman, 1985).

Furthermore, CL instruction can influence critical thinking (Johnson & Johnson, 1994). As such, it provides an effective answer to training and teaching problems that cannot be solved with any other approach (Slavin, 1991). Learning a language is also covered by this option. Following the widespread adoption of the CL method in the field of education, scholars, educators, and instructors began incorporating this approach into programs teaching foreign languages. When investigating the impact of CL in language classrooms, some studies have concentrated on how students behaved and thought about English lessons after CL was implemented, while other researchers have addressed the disparities in learning between students in CL and those who are not. Teachers all agree that practicing a language is the most crucial part of teaching kids a new language. There is merit to this concept. According to Brumfit (1984), collaboration and communication are essential to language acquisition since it's what the students need to be able to accomplish in order to advance in the language and express themselves as they see fit. CL has several benefits when it comes to language learning. First off, in addition to improving students' enthusiasm, CL teaching exercises can help second language learners improve their academic performance and problem-solving abilities. Furthermore, in collaborative settings, second language learners can more effectively apply and perform their logical thinking skills (Wentzel & Wakins, 2002). Another argument is that pupils may not learn as much by interacting with their teacher alone as they would if they spoke with classmates and picked up new vocabulary and patterns. Teachers are qualified to meet students' needs, but because of the gap in their cognitive abilities, they are unable to think in the same manner as students.

Accordingly, Ghaith (2003) contends that working with others while learning a foreign language fosters positive attitudes, and a sense of accomplishment, makes goals simpler to achieve and increases students' self- confidence. Additionally, it facilitates their ability to use language to suit their requirements (Liao & Yang, 2012). When language learners participate in CL activities,their language abilities improve (Baquero, 2011; Ngubane, 2013), and their learning level and attitude toward studying English also advance (Chen, 2005). Additionally, studies reveal that even while language tutors did not emphasize grammar in their instruction, language learners' proficiency increased dramatically with the application of CL (Kezoui, 2015).

Furthermore, research has shown that CL positively impacts English language learners' intrinsic motivation and excitement (Ning & Hornby, 2014; Oksal, 2014). Additionally, it was discovered that CL improved vocabulary in English (Bilen, 2015). Kartal and Özbek (2016) discovered that students who were learning English using CL had a favorable attitude towards learning the language, CL, group projects, and academic achievement. The current research has been comparing the CL technique with standard learning methods, despite the fact that there are not many research studies using the CL method in Turkey. In terms of attitudes towards school and classmates, research undertaken at various educational levels and in many subject areas both domestically and outside consistently finds that the CL technique is more successful and effective than the old ways. Research on teaching English and CL has been done very seldom (Açıkgöz, 1991, 1994; Aslandağ-Soylu, 2008; Gömleksiz & Onur, 2005; Pala, 1995). Such research is necessary since there isn't much available on the use of the CL technique in primary school English instruction in our nation (Baş, 2009). Studies reveal that CL is used in foreign language instruction for a variety of reasons. It is a great technique to support kids' social interactions and offer emotional support in addition to allowing them to utilize the language and become proficient in its syntax and vocabulary. Creating an environment like this will lessen student competitiveness, which will lead to more efficient learning. Further study is required in this area because there hasn't been much done to examine the value and impact of CL in learning English as a foreign language. Consequently, by investigating the impact of CL on the general success of Turkish EFL learners, this study seeks to add to the body of literature.

Several research has shown that Pakistani teachers are reluctant to use cutting-edge instructional techniques (Najmonisa & Saad, 2017). Students are taught to study

by rote because most Pakistani educational institutions use conventional teaching methods (Ali, 2011). According to Johnson et al. (1998), cooperative learning is still consistent with the concepts of behavioral theories, social interdependence, and cognitive development.

Cooperative learning is a teaching approach that promotes learning in small, heterogeneous groups with common goals. According to Hosseini & Ahmad (2013), Lirola (2016), Rajab & Ibrahim (2017), and other students, it assists various students with their learning needs. There are students with varying ability levels in a course. In a small group setting, people depend on each other to complete a common academic task and share knowledge. This group presentation improves their overall understanding of the material and their academic achievement (Hosseini, 2017; Rajab & Ibrahim, 2017). By outlining the five major principles of cooperative learning, educators can help students learn and improve their reading comprehension skills in the classroom by implementing cooperative learning practices.

Positive interdependence: An essential component of cooperative learning is optimistic interdependence. Teachers should give students clear homework assignments and establish group goals to assist them in comprehending that they swim or sink together. Positive interdependence can continue when all members of the group acknowledge their interdependence and the reality that each student's success depends on the success of the group—that is, when one student fails, all students fail. Students feel at ease disclosing their knowledge, abilities, and experience (Jonson & Johnson, 1989).

Face-to-face interaction: Teachers use cooperative learning, which employs a variety of learning activities to support small groups of learners with different ability levels in refining their grasp of a given topic, to encourage students to learn together (Wichade, 2005).

Reading widely enables students to absorb new material, investigate existing knowledge, focus on certain areas, and develop transferable abilities. Hood highlights the effect that fluency in reading English has on one's capacity for learning as a whole (Tindale, 2003). As a result, reading is presented as a complex and dynamic activity that involves organizing thoughts, deciphering written language, and comprehending meaning. Students who struggle with reading have been found to have issues with

understanding implicit information, recognizing references, recognizing important concepts, using context clues for new words, and quickly responding to questions. Pretests, interviews, and observations were used to reveal these difficulties. Of particular note was the reading skills pretest, which had an average score of 43.77, much below the required minimum English proficiency score of 70.00.

Students' lack of reading experience and tactics, which result in their inadequate vocabulary and comprehension abilities, are the primary causes of these problems. The researcher suggests using cooperative learning techniques, particularly Team Game Tournament (TGT) and Students Team Achievement Division (STAD), to overcome these issues.

Balkcom (1992) defined cooperative learning as working in small groups of people with different skill levels to complete tasks that improve comprehension of the subject matter. STAD is recognized as an easy-to-use and successful cooperative learning strategy that encourages students' self-sufficiency and success. As an adaptation of STAD, TGT uses academic games to add points to team scores, giving all students an even playing field and opportunity for positive interactions and teamwork.

The suggested cooperative learning strategy seeks to enhance students' reading abilities by addressing their challenges in locating particular material, references, major concepts, and conclusions. These approaches aim to improve fundamental skills, accomplishment, constructive relationships, and self-worth among students of different ability levels by encouraging teamwork.

Researchers are paying more and more attention to group learning/ cooperative learning as a learning strategy so that students may be involved in learning objectives, actively engaging in their own and their classfellows learning experiences because of the body of data by Johnson and Johnson (2001) and Slavin (1996) shows how well kids do academically and socially. In contrast to traditional teacher-centered approaches, group learning/cooperative learning provides students with the opportunity to engage in group interactions and acquire critical skills that are vital to their overall growth (Dollard & Mahoney, 2010). Interestingly, implementing cooperative learning techniques inside the learning space—like Jigsaw—has been linked to gains in academic achievement, increased self-esteem, and a more upbeat attitude toward learning (Winslow, 2020).

According to the Search for Common Ground (2003), cooperative learning entails working together to establish facts through in-person conversations, encouraging active engagement, and placing an emphasis on mutual respect, shared decision-making, and constructive relationships. Cooperative learning in the classroom entails students working together on group projects to foster a healthy learning environment (Barron & Hammond, 2008). Stahl (1994) emphasized that defined learning objectives, established goals, precise work instructions, different group compositions, enough learning time, and rewards and recognition are all necessary for successful collaboration in the classroom.

Using cooperative learning methodologies helps students acquire 21st-century abilities, such as communication, creativity, critical thinking, and teamwork (Lai & Viering, 2012). The literature has documented a number of cooperative learning strategies, (Astarini et al., 2019; Azmin, 2016; Lim et al., 2016, Benek & Bezir Akcay, 2019; Halimah & Sukmayadi, 2019; Kani & Shahrill, 2015; Lee et al., Damit et al., 2015; Duraman et al., 2015; 2018;)) among other methods of learning are Think-Pair-Share, Thinking-Aloud Pair Problem-Solving, the Three-Step Interview, Jigsaw, Teams-Games-Tournaments (TGT), and Group Investigation (GI). Mahari et al., 2019; Morera-Fernandez et al., 2020; Simpol et al., 2018; Sulaiman & Shahrill, 2015; Vijayan et al., 2016). Students engaged in cooperative learning actively collaborate to achieve a common objective while building positive relationships and mutual support (Akinbobola, 2009; Veenman et al., 2002).

Several key components of cooperative learning are responsible for its beneficial effects on student performance (Felder et al., 2000). Positive interdependence, personal accountability, in-person communication, social skills, and group processing are some of these attributes by Benek and Bezir Akcay(2019, Jones and Jones (2008), and Johnson et al (1991), they stress the importance of cooperative learning in improving student's involvement and academic results. Fostering reciprocal reliance within a team, positive interdependence builds trust and inspires students to work well together. Students are guaranteed to take ownership of their education via individual accountability, and a variety of evaluation techniques reveal the unique contributions of each student. Students are encouraged to help one another via conversations, inquiries, and mutual aid when they encounter face-to-face.

Leadership, establishing trust, making decisions, communicating, and handling conflict are all included in the development of social skills. Group processing includes analyzing dynamics within the group, resolving conflicts, and strengthening interpersonal bonds (Jones & Jones, 2008).

Numerous perks for students in cooperative learning have been demonstrated, for example, the development of communication skills, the active production of meaning, the encouragement of critical thinking, and the promotion of heterogeneity (Li & Lam, 2013; Michael, 2006; Othman et al., 2012; Zahara, 2010). Using a particular cooperative learning approach called Jigsaw, students become experts in a particular subject and then mentor their peers in it. This approach lowers participation reluctance in class and promotes active learning (Halimah & Sukmayadi, 2019; Morera-Fernandez et al., 2020; Qiao & Jin, 2010; Vijayan et al., 2016).

In this study, the Jigsaw and STAD techniques are especially used to improve cooperative learning planning through the use of action research. During the intervention, issues such as raised noise levels, social chat, hazy goals, students' unwillingness to participate, and perceived ineffectiveness might come up. Through problem-solving, plan refinement through reflection, and cooperative learning approach optimization for improved results, action research facilitates continual development (Aarts, 2008). Youngsters who struggle with reading sometimes have trouble comprehending grammar, particularly if they use two or more languages at thesame time and each has a different syntax. Both of them experience linguistic difficulties when the language grammar is different from the first. In the United States, research has shown that employing the Jigsaw approach to teach readingcomprehension can help pupils overcome their challenges.

According to Fuch et al. (2001), the majority of children in elementary and high school have a poor inclination to read any material for enjoyment, despite the fact that being literate is one of the main objectives of learning to read. However, other kids seemed to be uninterested and unfocused. Furthermore, pupils who struggled with reading were often the ones who lacked enthusiasm. Because of this, every reading-related activity in the classroom has an opposing viewpoint on students' reading comprehension. According to Guthrie (2008), teachers may need to devote more time to instructing pupils who exhibit poor motivation. In order to address this issue, educators who work with it should implement tactics that promote reading motivation.

Instructors may apply Jigsaw 1.They could benefit from this, achieve academic achievement, and build positive relationships with their peers. They can convey their ideas or opinions in the Jigsaw 1 approach by having good relationships.

According to Bolukbas et al. (2011), English language teachers attempt to use the jigsaw 1 approach to tackle the problem. The researcher can enhance the pupils' reading comprehension by doing this. One of the many cooperative learning strategies is the Jigsaw 1 strategy. It is a method of teaching pupils how to be astute learners of content. The Jigsaw 1 method was employed in this study to teach reading comprehension in English. The Jigsaw 1 approach is one of several methods used to teach English reading, but the author selected it to aid students with reading comprehension since it allows them to share difficulties they are having with one another. Students often have a lot of difficulty reading texts. For instance: challenging vocabulary, understanding sentences, accurately reading words or sentences, and so on.

The majority of reading exercises in reading classes concentrate on comprehension reading. The main goal of reading, according to Richard and Renandya (2002), is understanding. As a result, teachers typically assume that their pupils can understand what they are reading. It is expected of students to be proficient readers who can understand the material. Increasing reading comprehension through cooperative learning is one of the most often used strategies. It has been demonstrated to have a favorable impact on a number of outcomes (Johnson & Johnson, 2002). Cooperative learning is a teaching approach in which students assist one another in small groups to accomplish a shared goal while they are studying (Stevens, 2003). The idea of cooperative learning encompasses a variety of teaching techniques where students study a language in four to six-person small groups and participate in group projects in several ways (Slavin, 2004).

1.3 Cooperative Learning Methods

1.3.1 Jigsaw Technique

The Academic learning experience within cooperative learning, often known asthe group work method, involves a number of tasks. One reading cooperative learningstrategy is Jigsaw. Jigsaw reading, according to Jerome Baker (2012), may be applied to practically any subject. The reading can consist of several portions that the studentscan break up into small articles, lengthy articles, chapters, or even whole books.

Jigsawincorporates a process, according to Slavin in Novianto (2012), where students exchange the knowledge they have obtained with their group members with the other group members in the class. Every topic is tested, and the results are averaged to get team scores. Therefore, in order for the team to succeed, each member must successfully do their assigned responsibilities as well as effectively communicate withtheir teammates.

The jigsaw method, according to Webb & Culian (1994), may aid in creating a classroom where students feel valued and part of a community of learners. This approach will make teaching reading simpler since it motivates pupils to participate actively in the classroom. They will play on a team with both talented and underachieving pupils. After completing the individual assessment, each team of five or six students will work together to increase their individual improvement scores through study sessions. Each team member should be accountable for their own work to the other members of their own team.

According to Maria Brisk and Margaret M. Harrington's (2011) research, the jigsaw strategy enables students to collaborate and support one another's learning of new content. As they impart their knowledge to other students, students actively participate in their education. Jigsaw is a cooperative learning method in which five to six students work together to learn.

According to Mauludi (2011), using the Jigsaw approach gives students the chance to become more accountable for their education and collaborate with one another to study the subject. The jigsaw method is intended to increase students' accountability for their education. In addition to studying the assigned content, the students are also required to impart the knowledge to their fellow classmates. As a result, kids will rely on one another. To study the assigned content, they have to work together. Elliot Aronson created the jigsaw approach in 1971, and Mengduo and Xioaling (2010) reported that it is believed that it is very useful in improving student’s positive academic outcomes. As a cooperative learning strategy, vast research has been done overseas and examined in a variety of ways by several academics and educators in classrooms covering a range of topics and levels.

Enhancing human resources via education is crucial (Astuti, 2007). A good education will yield human resources of high caliber in terms of intellect, talent, and

spirituality. Since science and technology are developing at a faster rate than ever before, education must keep up with this growth, which includes vocational high schoolstandards. In 2016 Presidential Instruction No.9 was written in there about improving vocational education, which focuses on reviving vocational education. A few ways to revitalize vocational education are to raise the standard of instruction. Thus, in order topromote motivation and interest in students' learning, the mentor, acting as an instructor, must always be ready/prepared to meet the demands of the learners by establishing enjoyable learning environments (Ekasari et al., 2018). One of the most crucial things the government should do in this globalization age of the e-economy is to raise the standard of education in Indonesia. Indonesian institutions of higher learning have implemented a number of initiatives to raise student performance. The caliber of pupils' accomplishments is still insufficient, nevertheless. In addition, the government mandates that educators enhance their competencies to address issues related to teaching and learning in the classroom. To enhance the quality of the instructors' teaching-learning processes, Aceh's educational institutions have also established training programs. Teachers should also be well-versed in the personalitiesand demands of their pupils (Cercone, 2008). To make teaching classes easier, teachersshould also be aware of the various learning styles of their pupils (Oxford, 2003). Regarding this, one of the required disciplines included in the Indonesian school system's National Curriculum is economics education. The Education Department has taken a number of actions to raise the academic performance of senior high school pupils in their economics classes. In-service training strengthens the principal's role inguiding teachers through the teaching-learning process. Other policies aimed at improving the quality of instruction include requiring all teachers to obtain professional certification and providing improved facilities to support teaching-learning processes. Therefore, efforts to prepare and strengthen everyone's abilities and knowledge to confront the difficulties and uncertainties of the future should be given priority while considering the topic of human resources. Since students will be the nation's future human capital, they must acquire a wide range of knowledge and abilities in order to be acknowledged as the most significant future assets of the state.

These abilities can only be acquired via education (Martin & Double, 1998). Students' teaching-learning tactics should be modified to incorporate instructional techniques that foster a positive attitude during the learning process. To guarantee better

student outcomes and creativity, the teaching-learning processes should be enhanced with cutting-edge tacticsand approaches (Briggs 1994). Therefore, in order to assist students in mastering the teaching-learning processes, stronger student learning styles are required. Teachers should no longer assume that students will apply what they have learned through otherinstructional approaches, according to Dunn & Dunn (2008). In order to attain academicexcellence and high achiever status, teachers must adjust to the unique characteristics of their students in accordance with the new curriculum—32 Nazaruddin Ali Basyah, Asnawi Muslem, Bustami Usman ments. Economics is one of the subjects that studentsfind challenging when they are taught in high school and college, according to Johnstonet al. (2000). As a result, Johnston et al. (2000) proposed that in order for economics students to be able to adjust to these lessons, they must inevitably acquire the ability tothink abstractly. It's also important for students to learn how to articulate concepts clearly and coherently. To motivate their students to keep learning economics, economics teachers must employ a variety of teaching-learning techniques. Quantitative teaching techniques, including the use of graphs, figures, equations, and numerical examples, are frequently employed when teaching economics concepts. According to Schuhmann et al. (2005), students would struggle to understand economics if they did not acquire the ability to think quantitatively. Additionally, teachers have used a variety of teaching-learning strategies (contextual teaching and learning, scientific approach, discussion, etc.) to raise student achievement, but the outcomes are rarely satisfactory (Muslem & Abbas, 2017). In teaching-learning processes, cooperative learning methods are frequently employed to raise student achievement (Hornby, 2009; Jalilifar, 2010). An appealing approach to teaching and learning in the classroom is the cooperative learning model (Marburger, 2005). Benefits of integrating cooperative learning into the teaching-learning process include improved student achievement, sharpened critical thinking abilities, increased comprehension of the material, improved focus and reduced disruptive behavior in the classroom, reduced stress and anxiety levels, and—above all—an increase in students' motivation and self-assurance. Additionally, when working in a cooperative learning environment, students can strengthen their interpersonal skills and their ability to collaborate effectively with others (Kam-Wing, 2004; Zain et al., 2009; Sahin, 2010; Majoka et al., 2011).

1.3.2 STAD

Learners feel really good about the accomplishments they and their group members achieved when they practice collaborative learning to build their learning skills. As a result, students support one another and take ownership of group projects during collaborative learning. Through the use of the STAD group learning technique, students of all skill levels collaborate to attain objectives. Taguchi, Melhem, and Kawakuchi (2016) and Slavin (1995) both discussed how four or five students with a range of skill levels are placed in a group and perform. The instructor provided a reading lesson, which the class then studied collectively, making sure that every student understood the material and used the proper language and accent. throughout reading lessons, students do quizzes on their own and do not share their information throughout the test. Quizzes and results obtained by students are shared with others and contrasted with their performance on previous exams. A suitable method for teaching language and reading in the classroom is the student team accomplishment division. Adesoji and Ibrahim (2009). Four levels of the STAD are outlined by Slavin (2014) and are based on heterogeneous grouping in the classroom. Students' attitudes about their academic performance and skills are therefore improved by employing the STAD technique through interactions with their classmates and teachers. Students are not allowed to discuss their understanding of the allocated subject or their skills during evaluation. By posting their names on the board, pupils are recognized according to their test scores. Pupils receive prizes and have their performance evaluated against prior outcomes (Slavin, Lake, Hanley, & Thurston, 2014). In addition to fostering collaborative learning, educators must be creative and helpful while fostering group learning.

1.4 Problem Statement

Although cooperative learning has been widely recognized as an effective instructional approach, there is still limited research on the specific impact of **Jigsaw** and **STAD (Student Teams Achievement Division)** strategies on students' reading skills. Reading comprehension is a fundamental aspect of language learning, yet many middle school students continue to face challenges in understanding main ideas, and critical analysis of texts. While general cooperative learning methods have been explored, the effectiveness of **Jigsaw and STAD as targeted strategies to improve reading proficiency** remains under-investigated. Therefore, this study seeks to address

this gap by systematically examining how these methods influence students' reading comprehension and by providing evidence-based recommendations for teachers and educators.

1.5 Aim of the Research

The primary aim of this study is to investigate the effectiveness of cooperative learning strategies, specifically the **Jigsaw and STAD methods** in improving students' reading skills at the seventh-grade level. By analyzing the impact of these techniques on reading comprehension, the study seeks to provide practical and research-based suggestions for teachers. The ultimate goal is to support educators in creating engaging, interactive, and student-centered classrooms that foster literacy development and enhance overall learning outcomes.

1.6 Research Objectives

1. To investigate the impact of the **Jigsaw and STAD methods** on the reading comprehension of seventh-grade students.
2. To identify the advantages and disadvantages perceived by students when using Jigsaw and STAD strategies to improve their reading skills in the classroom.
3. To examine how individual learner differences, such as learning preferences and prior reading ability, affect the effectiveness of Jigsaw and STAD strategies in enhancing students' reading performance.

1.7 Research Questions

This study aims to answer the following research questions:

1. How do the **Jigsaw and STAD methods** affect the reading comprehension of seventh-grade students?
2. What advantages and disadvantages do students perceive when using Jigsaw and STAD strategies to improve their reading skills in the classroom?
3. How do individual differences such as learning preferences and prior reading ability, affect the effectiveness of Jigsaw and STAD strategies in enhancing students' reading performance?

1.8 Hypotheses

The study is guided by the following null hypotheses (Ho):

Ho1: There is no significant difference in the pre-test reading comprehension scores between the control group and the experimental group of seventh-grade students.

Ho2: There is no significant difference in the post-test reading comprehension scores between the control group and the experimental group of seventh-grade students.

Ho3: There is no significant difference between the pre-test and post-test reading comprehension scores of the control group.

Ho4: There is no significant difference between the pre-test and post-test reading comprehension scores of the experimental group

1.9 Research Significance

The findings of this study are expected to make meaningful contributions to the field of literacy instruction. For **teachers**, the results will provide evidence-based guidance on incorporating cooperative learning strategies into reading lessons. For **curriculum developers**, the study will highlight how structured group activities like Jigsaw and STAD can be integrated into language learning programs to strengthen comprehension skills. For **policymakers and educational stakeholders**, the research will offer insights into designing policies that promote collaborative, student-centered teaching approaches.

Ultimately, this study aims to enrich the existing literature on cooperative learning by focusing on its application to reading comprehension. By doing so, it will contribute to the ongoing discourse on effective literacy instruction and provide practical recommendations for improving students' reading skills in middle school classrooms.

CHAPTER 2
LITERATURE REVIEW

2.1 Overview

Finding efficient teaching methods to enhance students' reading abilities is a problem that faces educators everywhere. International and regional research on cooperative learning strategies more especially, the Jigsaw and Student Teams-Achievement Divisions (STAD) approaches are the main focus of this overview of the literature. It is imperative to comprehend their influence on the enhancement of reading abilities, particularly concerning Pakistani pupils who encounter distinct language and cultural obstacles.

Students' reading skills can be significantly improved by using cooperative learning strategies like Jigsaw and Student Teams-Achievement Divisions (STAD). By requiring students to collaborate in order to accomplish shared objectives, cooperative learning makes use of the social aspect of education to promote greater comprehension and retention of the subject matter. Elliot Aronson created the Jigsaw technique in 1971, which requires students to become "experts" on one aspect of a subject before passing it on to their colleagues. This ensures that each student makes a unique contribution to the group's learning. Through continuous interaction with the text, this strategy not only enhances reading comprehension but also helps students develop their communication and critical thinking abilities as they synthesize and share knowledge.

Research has indicated that the Jigsaw method enhances student interest and engagement, two critical elements in the development of reading skills. Jigsaw helps students focus intently on a smaller area of the text, which reduces cognitive overload and makes complicated information more comprehensible. It does this by breaking reading assignments into manageable sections. Peer-to-peer instruction becomes a significant part of the educational process in the classroom because Jigsaw's collaborative nature encourages students to assist one another's learning. As students ask questions, provide feedback to one another, and explain concepts in their own terms, they frequently engage in peer interaction that promotes deeper knowledge and higher-order thinking.

In a similar vein, Robert Slavin and his colleagues' STAD method encourages cooperative learning by putting students in different teams that collaborate to meet common academic objectives. Students in STAD study in groups before taking tests or quizzes on their own. Each member's improvement determines the team score, encouraging cooperation and solidarity among teammates. The emphasis on individual growth and group accountability in this approach has been demonstrated to be very successful in enhancing reading abilities, as it encourages students to actively interact with the text and aid in the learning of their peers.

Studies show that STAD improves reading fluency and comprehension by fostering an atmosphere in which students take responsibility for their own education as well as that of their classmates. In addition to encouraging regular practice and discussion of reading strategies—both crucial for skill development—this accountability also cultivates a sense of duty. Additionally, the competitive component of STAD in which teams compete to get the greatest improvement scores—can boost students' motivation and excitement, resulting in a more dynamic and participatory learning environment.

Further corroborating the efficacy of these cooperative learning strategies is Vygotsky's theory of social development, which holds that social interaction is essential to the cognitive process of growth. Vygotsky believed that learning is fundamentally a social process and that students learn best when they actively participate in group projects that push their boundaries and deepen their comprehension. By encouraging collaborative learning environments where students may engage, exchange ideas, and develop knowledge collaboratively, Jigsaw and STAD both support this theoretical paradigm.

Cooperative learning strategies are beneficial for improving reading skills, according to empirical research. For example, Jigsaw and STAD, two cooperative learning methodologies, consistently resulted in greater reading achievement levels when compared to standard teaching methods, according to a meta-analysis conducted by Johnson and Johnson (1989). Slavin's (1995) research also showed that cooperative learning boosts students' social skills and self-esteem, both of which are vital elements of a pleasant learning environment, in addition to improving academic achievements.

In a variety of educational contexts, the influence of cooperative learning on reading abilities is also noticeable. Research carried out in several cultural settings has demonstrated the adaptability and efficacy of Jigsaw and STAD for a range of student demographics.

For instance, studies conducted in both urban and rural schools have shown that these strategies can close the achievement gaps in reading among kids from various socioeconomic backgrounds. This flexibility highlights how inclusive and flexible cooperative learning approaches are, which makes them useful resources for teachers looking to raise reading proficiency in a diverse student body.

Furthermore, the efficiency of cooperative learning strategies has been further enhanced by their technological integration. Jigsaw and STAD can be made more interactive by utilizing digital platforms like online forums and shared documents that support group reading activities and conversations. These technological tools enhance the learning process by giving students more opportunities to interact with the text, work with classmates, and get immediate feedback.

Jigsaw and STAD are two examples of cooperative learning methodologies that provide effective methods for raising pupils' reading proficiency. Through the establishment of a cooperative and encouraging learning atmosphere, these techniques improve reading comprehension and retention while also developing vital social and cognitive abilities. Jigsaw and STAD have demonstrated efficacy as instructional aids due to their agreement with recognized learning theories and their constant performance in a variety of educational settings.

2.2 Cooperative Learning

Cooperative learning strategies, particularly the Jigsaw and Student Teams-Achievement Divisions (STAD) methods, have garnered significant attention in educational research for their effectiveness in enhancing students' reading skills. This literature review examines recent studies that focus on these methodologies, highlighting their impact on reading comprehension, engagement, and collaborative skills.

Jigsaw Method

The Jigsaw method, developed by Aronson et al. (1978), is a cooperative learning technique that promotes student engagement by assigning different segments of a text to each group member. Recent studies illustrate its effectiveness in improving reading skills:

1 **Comprehension and Engagement**: A study by Elhadi and Baki (2022) found that the Jigsaw method significantly improved reading comprehension among middle school students. The authors noted that students who participated in Jigsaw activities demonstrated greater engagement and motivation to read, attributing this to the interdependence fostered within the groups. Students expressed a sense of responsibility to teach their peers, which enhanced their understanding of the material.
2 **Diverse Learning Needs**: Research by Wu et al. (2023) focused on diverse classrooms and concluded that the Jigsaw method effectively supports students with varying reading abilities. The study highlighted that students with lower reading skills benefited from peer teaching, which helped them grasp complex vocabulary and concepts more readily.
3 **Critical Thinking Development**: A meta-analysis by Hwang et al. (2023) examined multiple studies on Jigsaw's impact on critical thinking in reading. The findings indicated that students engaged in Jigsaw activities not only improved their comprehension but also enhanced their ability to analyze and evaluate texts. This dual benefit was attributed to the collaborative discussions that occurred during the learning process.

Student Teams-Achievement Divisions (STAD)

STAD is another cooperative learning strategy where students work in teams and earn points based on their individual and group performances. Recent literature emphasizes its effectiveness in improving reading skills:

1 **Academic Achievement**: A study by Almarza et al. (2022) demonstrated that STAD significantly improved reading comprehension scores among elementary students compared to traditional instructional methods. The researchers noted that the collaborative nature of STAD encouraged students to discuss readings, leading to deeper comprehension and retention of information.

2 **Peer Support and Motivation**: In a study by Lestari and Supriyanto (2023), the authors found that the STAD approach increased motivation among students to read regularly. The competitive yet supportive environment of STAD allowed students to celebrate each other's successes, creating a positive feedback loop that reinforced reading habits.

3 **Cultural and Contextual Adaptability**: Research by Zaman et al. (2024) examined the adaptability of STAD in various cultural contexts. The study highlighted that STAD could be effectively implemented in diverse classrooms, providing equitable opportunities for all students to improve their reading skills. The findings suggest that the method's structure supports not only academic growth but also social integration among peers from different backgrounds.

Comparative Studies

Several studies have compared the effectiveness of Jigsaw and STAD in improving reading skills:

1 **Effectiveness and Preference**: A comparative study by Mendez and Tovar (2023) assessed the outcomes of Jigsaw and STAD on high school students' reading comprehension. The results showed that while both methods significantly improved comprehension scores, students expressed a preference for Jigsaw due to its emphasis on peer teaching and interaction. This preference was linked to higher levels of engagement and enjoyment in the learning process.

2 **Sustainability of Learning**: A longitudinal study by Kim et al. (2023) evaluated the long-term effects of Jigsaw and STAD on reading retention. The study found that students who participated in Jigsaw activities demonstrated better retention of reading material over time, suggesting that the collaborative discussions facilitated deeper cognitive processing compared to STAD.

Researchers are becoming more interested in the educational practice of cooperative learning. Numerous studies by Slavin (1996) and Johnson and Johnson (2001) show that when students are given the chance to collaborate with one another to accomplish common objectives, they develop socially and intellectually. When comparing cooperative learning versus teacher-centered learning, there is a noticeable

difference. It allows children to practice the skills necessary for growth and collaborate socially with their classmates (Dollard & Mahoney, 2010).

Additionally, there are other benefits of employing cooperative learning in the classroom, includingenhanced academic success, increased self-esteem, and more favorable attitudes abouteducation in general (Winslow, 2020). One such benefit is the use of Jigsaw.

According to Johnson and Johnson (1999), when students collaborate, they make a greater effort to produce favorable results because they develop positive, constructive connections with their classmates.

According to the Search for Common Ground (2003), cooperation often refers to a collaborative effort between parties to ascertain facts when talks are held in person and everyone is invited to participate. In addition, there is a strong emphasis on respect, decision-making requires approval from all members, and relationships are strengthened by mutual trust and constructive interactions. Being cooperative in a school environment that emphasizes group projects might result in consequences that make learning more conducive and effective for the students. According to Stahl (1994), a few requirements must be met for cooperation to be successful, including a distinct set of learning outcomes, a target outcome that each student has agreed upon, explicit task instructions, a diverse group of students, enough learning time, and the availability of rewards and recognition.

Cooperative learning techniques might help students acquire the critical thinking, creativity, teamwork, and communication skills that are necessary for the twenty-first century (Lai & Viering, 2012). The literature offers a variety of cooperative learning strategies, including Think-Pair-Share, Think-Aloud Pair Problem Solving, the Three-Step Interview, Jigsaw, Teams Games Tournaments (TGT), and Group Investigation (GI) (Damit et al., 2015; Duraman et al., 2015; Kani & Shahrill, 2015; Halimah & Sukmayadi,Astarini et al., 2019; Azmin, 2016; Benek & Bezir Akcay, 2019; 2019; Lee et al., 2018; Lim et al., 2016; Mahari et al., 2019; Morera-Fernandez et al., 2020; Simpol et al., 2018; Sulaiman & Shahrill, 2015; Vijayan et al., 2016). In essence, cooperative learning occurs when students work together in groups to complete tasks that have been provided by the teacher (Barron & Hammond, 2008).It would result in

an excellent product as students are cooperating to achieve the common objective that has been decided upon by all team members (Ransdell & Moberly, 2003).

According to Akinbolola (2009), By the use of cooperative learning, teachersmay help students with various levels of skills work together in groups to finish a task. This is so that students can freely position themselves for conversations that complement one another's understandings in a classroom designed for cooperative learning (Veenman et al., 2002).

According to Ransdell and Moberly (2003), the use of a cooperative approach in the classroom fosters improved student performance by providing students with opportunities to demonstrate their skills and competencies to their peers. Because students may receive and provide comments from their classmates, as well as encouragement to perform better, the cooperative method fosters a two-way process (Ransdell & Moberly, 2003,Akinbobola, 2009;). This encourages the pupils to collaborate with one another. Therefore, in order to guarantee that the method's overall process functions and that student interactions are accomplished, instructors must prepare well by paying close attention to the lesson's planning (Barron & Hammond, 2008). Because they employ a range of learning activities to enhance students' comprehension of a subject, cooperative techniques promote positive learning among students and are thus an effective teaching style (Akinbobola, 2009).

Five essential characteristics must gradually be created for cooperative learning to be successful (Felder et al., 2000). (Benek & Bezir Akcay, 2019;Jones & Jones, 2008 Johnson et al., 1991;) These are positive interdependence, individual accountability, face-to-face connection, social skills, and group processing. The following provides explanations for each of the five key components of cooperative learning.

First, since team members rely on one another for ideas, positive interdependence develops (Jones & Jones, 2008), encouraging trust among all members and helping them achieve effective achievement in their grades. Since they understand that the success of their group depends on the performance of each individual team member, students acquire a feeling of accountability for their education. According to Slavin (1996), when one student fails to show the other members of the team that they grasp the content, it can lead to failure in the group project for all of the members of the team.

Realizing that every team member acquired the same information gives them the incentive to have the other members of the team educate and debate the subject as well (Slavin, 1996). It suggests that group members collaborate throughout the learning process.

According to Johnson and Johnson (1999), the second aspect of individual accountability is that students take ownership of their education by working in groups to complete tasks because they feel obligated to raise their own grades. As a result, they frequently contribute to group projects in order to help the team obtain successful results for their own good (Jones & Jones, 2008). There are a few methods to organize the students' accountability: assigning individual tests, choosing a group representative, or having each student summarize what they have learned (Johnson & Johnson, 1999). This method helps and allows teachers to comprehend how the pupils are studying, and how their progress has been so far.

Thirdly, in-person interactions center on students encouraging one another's achievement via conversations, questioning, and helping one another finish a job (Jones & Jones, 2008). Through these exchanges, students learn to value the perspectives of others, maintain concentration, and encourage others to speak up (Slavin, 1996). According to Johnson and Johnson (2009), for the learning process to be effective, quiet students who are not participating in the process with others must be encouraged. In order to receive constructive criticism, dialogues are essential to learning achievement (Jones & Jones, 2008).

Fourth, according to Jones and Jones (2008), children may lack the social skills needed to collaborate with others, therefore teaching them how to work together through cooperative learning can promote social and interpersonal development (Ferrer, 2004). Leadership, establishing trust, making decisions, communicating, and handling conflict are some examples of social skills (Johnson & Johnson, 2009; Kani et al., 2014). Lastly, cohesiveness within the team that enables the members to hone their teamwork abilities is a component of group processing (Slavin, 1996).

Participating during the collaborative/group process by recognizing and resolving all issues among participants can demonstrate that students are effectively cooperating to accomplish their common objective (Johnson & Johnson, 1999). Their

interpersonal relationships will be of higher quality if they consider how well they cooperated during the group project (Jones & Jones, 2008).

Because of its benefits, cooperative learning became quite popular a few decades ago. The actions involved in these strategies helped them become more well-known. For the pupils, these processes and activities are very beneficial (Alireza, 2010).

Small groups get instructions, are given a goal, and then have their performance assessed. It encompasses a variety of instructional strategies, including cooperative integrated reading and composition, think-pair-share, jigsaw, student team division, team-assisted individualization, team game tournaments, and group investigation (Salvin, 1982). Cooperative learning fosters students' capacity to communicate and engage with others in a way that suits them both. In order to accomplish a common objective, this teaching approach promotes characteristics like collaboration, respect, honesty, responsibility, patience, and temperament. Students' self-confidence can be boosted in cooperative learning by carrying out different tasks (Zakaria et al., 2013).

With an emphasis on the needs of the individual student, this cooperative learning approach uses a variety of instructional methods and tactics that connect to various learning styles to support students' thinking and learning (Bennet, 2010). This method of instruction aims to control classroom activities to promote academic and social learning (Gillies, 2016).

Collaborating to achieve a shared objective is the act of cooperating. This implies that people collaborate to improve outcomes that benefit both them and a few other group members. It occurs when several students collaborate in small groups to advance both their own and their peers' education (Johnson & Johnson, 2018). Cooperative learning requires instructor help and supervision; it does not happen automatically. If every member of the group is performing essentially the same task, then many actions won't alter on their own (Cohen et al., 2004).

The Instructor plays acrucial part in making the cooperative learning method successful in the classroom. It is very important for students to actively participate in the learning process through various means, cooperative learning has been known as an essential quality for success in the current period and a necessary element of deep structured learning (Palmer et al.,2017). This relates to the formation of groups for cooperative learning, taking into account the makeup and size of the groups, the kind

of activity assigned, cooperative individual and group responsibilities, standards for student behavior, and the teacher's role in monitoring the process and the outcome of the learning in groups (Palmer et al.,2017).

Regretfully, the majority of teachers in Pakistan employ traditional teaching techniques (Hussain et al., 2008; Jan 2013). According to Khan (2008), the lecture style fosters individualized instruction in a competitive setting where students strive for high grades and professors commend them. The majority of traditional teaching approaches do not promote student engagement and cooperation (Parveen & Batool, 2012; Sultana & Zaki, 2015). Scholars from throughout the globe have suggested that traditional teaching approaches encourage self-directed learning. Traditional teaching approaches assume that students study on their own and receive excellent grades with the acknowledgment and approval of their teachers (Salvin, 1996). Numerous more investigations concur with this assertion (Gillies & Ashman, 2003). Numerous studies have revealed that Pakistani educators are resistant to implementing innovative teaching strategies (Najmonisa & Saad, 2017). Since conventional teaching methods are employed in most Pakistani institutions, pupils are taught to learn by rote (Ali, 2011). Johnson et al (1998) said that cooperating learning remains consistent with the ideas of behavioral theories, social interdependence, and cognitive development.

A teaching strategy called cooperative learning advocates for learning to be done in small, diverse groups with shared objectives. It helps different students with their learning needs (Hosseini & Ahmad, 2013; Lirola, 2016; Rajab & Ibrahim, 2017). Different skill levels of pupils are present in a classroom. When grouped together in a small group, they rely on one another to accomplish a shared academic objective and exchange information.

Their general comprehension of the subject matter and academic performance are enhanced by this group presentation (Hosseini, 2017; Rajab & Ibrahim, 2017). By applying cooperative learning strategies inside the classroom, educators may help students learn and enhance their reading comprehension abilities by defining the five main principles of cooperative learning.

Positive Interdependence

Optimistic interdependence is a fundamental and crucial aspect of cooperative learning. To help kids understand that they swim or sink together, teachers can offer

clear homework and set group objectives. When all group members recognize their interconnectedness and the fact that individual student achievement is contingent upon group success—that is, when one student fails, all students fail—positive interdependence can persist.

Pupils are comfortable sharing their skills, insights, and expertise (Jonson & Johnson, 1989).

Face-to-face interaction: Cooperative learning is an approach that is used by teachers to encourage students to learn together, and that uses various learning activities to help small groups of learners all with varying skill levels modify their understanding of a given topic (Wichade,2005).

Accountability: Since everyone in the group is accountable for their work, they may all disclose the findings and decide who needs more assistance and support. A sense of success is generated when each member of a group is held accountable for both their own and the group's learning (Suwantarathip & Wichadee, 2010).

Equivalent participation: It enables each group member to take part in the activity. Every student has the chance to take part in class activities and succeed by working in teams, which helps them improve their understanding of what they read. Through cooperative learning, students may practice their language abilities (Gurk & Mall-Amiri, 2016).

Face-to-face interaction: All group members support one another in the learning process by interacting face-to-face; they also motivate students to carry out their responsibilities and complete their work correctly, since they depend on one another to succeed. In order to succeed, they also assess one another's performance (Wichadee & Orawiwatnakul, 2012).

By incorporating these core ideas into cooperative learning scenarios on a regular basis, it is possible to guarantee teamwork and ensure that cooperative learning is carried out correctly for ongoing success. Although the aforementioned essential components of cooperative learning remain constant, there are several iterations and adjustments to the model. Spencer Kagan, Robert Slavin, Roger Johnson, and David Johnson are among the key pioneers of the cooperative learning approach; each has a somewhat different emphasis and methodology (Li & Lam, 2013).

Cooperative learning is a relatively new approach to education. The 1970s saw a boom in it. With this approach, students exchange information and expertise by working in groups or pairs. They help one another become specialists in their ideas and abilities in this way. Group work and cooperative learning are not the same. Group work does not imply teamwork; rather, it refers to pupils working together. With the cooperative learning approach, students of varying skill levels collaborate during the learning process and get recognition and incentives based on their collective achievement (Woolfolk, 2004).

The small group technique is a cooperative learning approach where students form a team which is small and gets acknowledgment due to the collective accomplishments of the group (Sprinthall & Sprinthall, 2000). Every participant in cooperative learning is responsible for his or her own learning, effort, and engagement, and the activities are extremely well-planned. Incentives are often given to students in order to encourage good performance (Salvin, 2000). As part of a cooperative learning approach, students carry out learning tasks with one another's assistance and collaboration. Performance in the group is crucial. Sometimes the interests of the group take precedence over the performance of individual students (Johnson et al., 1987).

When students collaborate with one another in small groups, they do better. They get better at understanding one other's cultures, which helps them develop their interpersonal skills and makes them more equipped to function in the current world. This approach to teaching was incredibly popular in the 1980s and continues to be a valuable resource in academic settings today (Barker & Clark, 2010). According to Johnson et al. (2007), cooperative learning has advantages for both teachers and students. The most productive and all-encompassing approach to study, theory, and practice in the education sector is cooperative learning (Shimazoe & Aldrich, 2010).

In Pakistan, there is most likely not a lot of study on cooperative learning strategies. Therefore, this is a fundamental need for conducting research studies to look at the efficacy of various cooperative learning models for a wide range of subjects at various teaching levels. Moreover, primary school is a critical educational stage that necessitates the use of contemporary teaching techniques in order to raise standards (Parveen & Batool, 2012).

Numerous advantages of cooperative learning for students' learning have been demonstrated (Walmsley & Muniz, 2003). Building heterogeneity among the pupils and encouraging learning for everyone are two of the advantages (Li & Lam, 2013). Through cooperative learning, students with varying learning styles may collaborate in a supportive learning environment while meeting their individual requirements.

Additionally, by encouraging critical thinking, cooperative learning helps students accomplish academically (\ Veenman et al., 2002; Zahara, 2010, Othman et al., 2012;) (Li & Lam, 2013). It motivates pupils to eagerly participate and create individual interpretations using whatever knowledge they have learned thus far (Michael, 2006). It helps students relate the ideas they have learned to actual situations and evaluate problems by figuring out how to make things better. According to Li and Lam (2013), cooperative learning helped students become more adept communicators who could handle disagreements. This is a result of the students' shared objective, which calls for cooperation (Veenman et al., 2002). Because everyone in the group is working toward the same objective, disagreements are handled amicably, resulting in unanimous decision-making.

Jigsaw is a cooperative learning strategy that helps students practice working in teams to achieve a common goal (Morera-Fernandez et al., 2020; Vijayan et al., 2016; Halimah & Sukmayadi, 2019; Qiao & Jin, 2010;). Jigsaw is created at the time. team members assign each other the task of instructing teammates using a predetermined set of learning resources (Ledlow, 1996). It has been demonstrated to foster active learning and lessen students 'resistance to taking part in class discussions. Thus, the goal of the current study's use of action research is to enhance Jigsaw-based cooperative learning planning.

This is due to the possibility of a few issues throughout the intervention, like loud noise levels, social chatter, hazy goals, learners ‘unwillingness to participate, and the potential of the application to be perceived as having no educational value. Action research may be used to improve the strategy throughout the reflection process, and the same approach can then be used to create a different loop.

A typical problem-solving technique in language learning is cooperative learning, where a group of small students collaborate to achieve the same objective. Each team member is accountable for their own assignment and must work throughout

group work. Group members' interactions with one another during a conversation inspire and uplift one another. They are able to assess The collective and individual members' capacity to work (Marzbana, & Alinejadb, 2014; Johnson, Johnson, &Stanne, 2000). The application of this technique to support students' learning more successfully is guided by the theoretical foundations of cooperative learning in social interaction learning.

2.2.1 Theory of Working together/Social Interdependence

Social interdependence dictates how group members engage with one another in order to accomplish goals through various means. Students assist and guide one another in completing the given assignment in this way. Social theorists contend that students support and encourage one another in the context of their circumstances and inspire one another for their own shared interests (Johnson & Johnson, 2005; Slavin, 2011). Positive interdependence in the classroom is one of the most crucial components of cooperative learning (Johnson & Johnson, 2005). Team building exercises encourage cooperative instruction and the assessment of group skills both before and after learning activities because they foster social engagement. Pupils who are graded or evaluated are more likely to contribute to group projects (Johnson & Johnson, 2009; Deutsch, 1949; Barrot, 2016).

2.2.2 Cognitive Perspective

The way information enters and is processed by the human mind is the subject of cognition. These theorists attempt to understand how cognition and learning occur in the brain (2011 Slavin,). Zone of Proximal Development (ZPD) was defined by Vygotsky as a collaborative approach to problem-solving that follows group members' autonomous guidance and instructions. He explained how cooperative learning techniques are used by team members to perform tasks involving significant connection(Vygotsky, 1978; Johnson & Johnson, 2009).

Thus, cooperative learning methods may be employed in conjunction with the student-centered approach to get beneficial results. By offering advice on how to improve critical thinking and each other's performance, they support and encourage one another (Barrot, 2016; Colorin, 2007; Johnson & Johnson, 2008).

Group members are motivated to achieve certain objectives in order to facilitate cooperative learning in a group setting. Group members get incentives or sanctions

based on how well they work. Students were therefore given opportunities to put effort from those who were awarded for their outstanding efforts, and they were also encouraged by witnessing the performance of others. Bandura (1977) notes that in addition to incentives, kids can pick up skills through imitation and peer observation. (Taguchi, Melhem, & Kawakuchi, 2016; Schunk, 2007).

Behavior has an impact on social skills education, according to traditional education theories like behaviorism. Through their magical box experiment, Thorndike and Skinner discovered that instrumental conditioning caused animals like cats, dogs, and mice to exhibit a response. Animal reactions will occur if a reward is offered (Zeki Kaya & Selcuk Akdemir, 2016). This implies that human reactions will result from the learning process being repeated. Students will therefore attempt to learn if incentives are included in learning activities. There's a reward component in the CLM too. With the assistance of friends, jigsaw has a reinforcing aspect, and TGT awards points to the group in a spirit of friendly rivalry.

One key idea to take into account in the CLM is Lee Vygotsky's theory of cognitive development. In his 1978 book Mind in Society, Vygotsky argued that social contact is the primary means by which linguistic thinking and reasoning processes evolve.

Children's cognitive and social development phases are greatly influenced by their surrounding environment, spoken language, and social interactions.

However, Albert Bandura maintains that kids often mimic the hostile actions of the adults in their environment. According to Bandura's Social Learning Theory (Bandura, 1999), imitation and reinforcement are two ways that the environment may affect people's behavior. As to Bandura's theory, learning occurs when an individual observes and emulates the conduct and mindset of others. This implies that in cooperative learning, students' social skills will be influenced by teachers and peers who use effective strategies and tactics. According to Irwan Fariza Sidik et al. (2018), environmental assistance is therefore required to foster students' inner skills and promote their involvement in a variety of learning activities at school.

2.3 Jigsaw of the Cooperative Learning Model (CLMJ)

To improve their education, students at the University of Texas and the University of California utilized the jigsaw, which was made famous by Elliot Aronson in the early 1970s.

In Cooperation in the Classroom: The Jigsaw Method (Aronson & Patnoe S, 1978), the Jigsaw methodology is thoroughly explained. One cooperative technique that helps students become experts at the level they are studying is Jigsaw. Jigsaw puzzles are comparable to this paradigm. By contributing a piece of the puzzle, each group member shares what they have learned. Jigsaw's core concept is that each team member will become an expert in a certain chapter and be in charge of passing on their knowledge to fellow team members. The tiny subject breakdown will be split based on the proficiency of the students. Students' social skills will improve and interaction will be promoted via this relationship.

According to recent research, Jigsaw significantly influences students' aspirations to participate in social and group interactions (Nur Syaza Farha Diyazid et al., 2017; Thunishaa a/p Veerappen, 2016). According to the earlier study, there is a perception that the CLMJ improves student success. Additionally, CLMJ provedsuccessful in enhancing students' understanding and proficiency with fundamental scientific ideas related to measurement and physical attributes (2018, Amutha A/P Munia Nendi,). Additionally, students' performance in the Advanced-Level PsychologyGeneral Certificate of Education is positively impacted (Nur Hafizah Azmin, 2016).

Furthermore, engineering students may also benefit from the Jigsaw-based cooperative learning approach by using it to proactively tackle their challenges (Dhage et al., 2016).

Students who are proficient in memorizing are assigned to assist their group in recalling the hadith material in the CLMJ part on Islamic education. While other participants are tasked with solving puzzles or learning other material. Among these are the lessons learned from the wisdom of loving and respecting one's parents, as well as the repercussions of disobeying one's parents. They will next make sure that, via constructive interactions in small groups, the knowledge and lessons are shared within the relevant groups.

2.4 Student Team Achievement Divisions (STAD) as a Method for Cooperative Learning

The use of student-team Achievement Divisions (STAD) as a cooperative learning strategy in the classroom has drawn increasing attention from academics studying student learning. Over the last twenty years, two main theoretical vantage points on cooperative learning have been investigated: motivational and cognitive models of student learning (Slavin 1987). In order to promote effective learning for all students, cooperative learning is defined by Killen (2007) as an instructional design that encourages peer interaction and learner-to-learner collaboration. According to Van Wyk (2010), cooperative learning is an effective teaching method that gives students equitable access to education, more hands-on learning opportunities, and a more encouraging social setting. Furthermore, according to Adams and Hamm (1996), the use of cooperative learning as a teaching approach has transformed education in the last ten years. The term "student team learning" refers to the cooperative learning experiment known as Student Teams Achievement Divisions, which was created and studied by Johns Hopkins University (Sharan 1994). Numerous research projects have successfully used STAD as a teaching approach thanks to studies conducted on the subject (Slavin 1987; Vaughan 2002; Jacobs et al. 2003; van Wyk 2010). As the next two definitions will make evident, cooperative learning is commonly understood to be a continuum of learners cooperating in small groups to complete a task that has been specifically assigned by the teacher. Cooperative learning encompasses more than just students working in groups; it is not just another term for group work.

According to Yeung, H. C. H. (2015). , cooperative learning is a useful teaching technique that gives students equitable access to education, more active learning opportunities, and asocially friendly setting. According to Killen (2007), cooperative learning is an instructional design that promotes collaboration between learners and peer interaction in order to support everyone's success in learning. According to Adams and Hamm (1996), the use of cooperative learning as a teaching technique has been successful in transforming education in the last ten years. Their study focuses on the utilization of cooperative learning activities in the classroom, where students work together to creatively identify issues and come up with workable solutions. According to Sapon- Shevin and Schniedewind (1992), cooperative learning is essential to any teaching- learning process.

Since this specific approach "may foster educational excellence for all children regardless of race, class, or gender, and can provide students and teachers with the experience and expectations of active participation in monitoring and changing the spheres of their lives," it is appropriate in this particular situation (p. 32).

Putting students in a group does not ensure that they will cooperate. Van Wyk (2007) states that cooperative learning entails far more than simple group projects: "Cooperative learning entails much more than merely physically interacting with other students, talking about content with them, offering assistance, or imparting knowledge to them" (p. 231). While each of these components is crucial for cooperative learning, Johnson et al. (1999) list four prerequisites that must be met for cooperative learning groups to really operate as a cooperative before anything else: Good interpersonal relationships, group dynamics, individual learning outcomes, and interpersonal and small-group abilities. Cooperative Integrated Reading and Composition (CIRC), Jigsaw, Academic Controversy (AC), Team Assisted Individualization (TAI), Jigsaw, Student Teams-Achievement Divisions (STAD), Teams-Games-Tournament (TGT), Learning Together (LT), etc. are a few examples of cooperative learning techniques (Kagan 1994).

All cooperative learning strategies are based on the tenet that students learn collaboratively and are accountable for both their own and their peers' education (Slavin 1994). These two approaches combine a high level of individual accountability with cooperative objectives and tasks, making them suitable for application in economics education programs (Slavin 1990). These two methods were chosen becausethey feature straightforward procedures that are simple to comprehend, recall, and implement.

The Student Teams Achievement Division (STAD) is a cooperative learning method that has been thoroughly studied and evaluated, with a focus on academic achievements, attitudes, social interactions, and interpersonal relationships (Slavin 1983, 1990; Kagan 1994; Johnson and Johnson 1998; Johnson et al. 1999; Balfakih 2003; Bernaus and Gardner 2008; Tarim and Akdeniz 2008). Teachers who are new to cooperative learning technology may find that STAD is a useful starting tool because it is one of the most straightforward and well-researched varieties of cooperative learning strategies (Becker and Watts 1998; Slavin 1990). Known as "student team learning," STAD was developed and studied as a teaching method by Johns Hopkins University

(Sha- run 1995). Numerous research projects have successfully used STAD as a teaching tool thanks to research studies on the subject (Vaughan 2002; Jacobs et al. 2003; van Wyk 2010). The major goal of STAD is to significantly enhance and hasten student performance. Subsection teams, individual improvement scores, class presentations and demonstrations, and economic quizzes make up the modified STAD.

2.5 Related Studies

Researchers are becoming more interested in the educational practice of cooperative learning. Numerous studies by Slavin (1996) and Johnson and Johnson (2001) show that when students are given the chance to collaborate with one another to accomplish common objectives, they develop socially and intellectually. When comparing cooperative learning versus teacher-centered learning, there is a noticeable difference. It allows children to practice the skills necessary for growth and collaborate socially with their classmates (Dollard & Mahoney, 2010). Additionally, there are other benefits to using cooperative learning in the classroom, including enhanced academic achievement, increased self-esteem, and more favorable attitudes toward education in general (Winslow, 2020). One such benefit is the use of Jigsaw. According to Johnson and Johnson (1999), when students collaborate, they make a greater effort to produce favorable results because they develop pleasant, constructive connections with their classmates. According to the Search for Common Ground (2003), cooperation often refers to a collaborative effort between parties to ascertain facts when talks are held in person and everyone is invited to participate. In addition, there is a strong emphasis onrespect, decision-making requires approval from all members, and relationships are strengthened by mutual trust and constructive interactions. Being cooperative in a school environment that emphasizes group projects might result in outcomes that make learning more conducive and effective for the students.

According to Stahl (1994), a few requirements must be met for cooperation to be successful, including a distinct set of learning outcomes, a target outcome that each student has agreed upon, explicit task instructions, a diverse group of students, enough learning time, and the availability of rewards and recognition. Cooperative learning techniques might help students acquire the critical thinking, creativity, teamwork, and communication skills that are necessary for the twenty-first century (Lai & Viering, 2012). Astarini et al. (2019), Azmin (2016), Benek & Bezir Akcay (2019), Damit et al. (2015), Duraman et al. (2015), Halimah & Sukmayadi (2019), Kani & Shahrill (2015),

Lee et al. (2018), Lim et al. (2016), Mahari et al. (2019), Morera- Fernandez et al. (2020), Simpol et al. (2018), Sulaiman & Shahrill (2015), and Vijayan et al. (2016) are some of the cooperative learning strategies that are presented in the literature. Overall, cooperative learning is described as teamwork in which students work together to complete a task that is assigned by the instructor (Hammond & Barron 2008). It will result in an excellent product as students cooperate to achieve the common objective that has been decided upon by all team members (Ransdell & Moberly, 2003).

In a similar vein, Akinbolola (2009) defined cooperative learning as a teaching strategy that enables students with varying levels of ability to collaborate in groups to achieve a goal. This is so that students can freely position themselves for conversations that complement one another's understandings in a classroom designed for cooperative learning (Veenman et al., 2002). According to Ransdell and Moberly (2003), the use of a cooperative approach in the classroom fosters improved student performance by providing students with opportunities to demonstrate their skills and competencies to their peers. Because students may receive and provide comments from their classmates, as well as encouragement to perform better, the cooperative method fosters a two-way process (2003, Ransdell & Moberly, Akinbobola, 2009;). This encourages the pupils to collaborate with one another. Therefore, in order to guarantee that the method's overall process functions and that student interactions are accomplished, instructors must prepare well by paying close attention to the lesson's planning (Barron & Hammond, 2008).

Because they employ a range of learning activities to enhance students' comprehension of a subject, cooperative techniques promote positive learning among students and are thus an effective teaching style (Akinbobola, 2009). Five essential characteristics must gradually be created for cooperative learning to be successful (Felder et al., 2000). (Jones & Jones, 2008, Johnson et al., 1991; Benek & Bezir Akcay, 2019;) These are positive interdependence, individual accountability, face-to-face connection, social skills, and group processing. The following provides explanations for each of the five key components of cooperative learning. First, when team members rely on one another for ideas, positive interdependence develops (Jones & Jones, 2008), encouraging trust among all members and helping them achieve effective performance on their tests. Since they understand that the success of their group depends on the performance of each individual team member, students acquire a feeling of

accountability for their education. According to Slavin (1996), when one student fails to show the other members of the team that they grasp the content, it can lead to failure in the group project for all of the members of the team. Realizing that every team member acquired the same information gives them the incentive to have the other members of the team educate and debate the subject as well (Slavin, 1996). It suggests that group members collaborate throughout the learning process. According to Johnson and Johnson (1999), the second aspect of individual accountability is that students take ownership of their education by working in groups to complete tasks because they feel obligated to raise their own grades. As a result, they frequently contribute to group projects in order to help the team accomplish successful results for their own gain (2008, Jones & Jones). There are a few ways to organize the students' accountability: assigning individual tests, choosing a group representative, or having each student summarise about the knowledge they grasped,(1999 Johnson & Johnson,). These offer the test so that the instructor can comprehend how the pupils are studying.

Thirdly, in-person interactions concentrate on students encouraging one another's achievement via conversations, questioning, and helping one another finish a job (Jones & Jones, 2008). Through these exchanges, students learn to value the perspectives of others, maintain concentration, and encourage others to speak up (Slavin, 1996). According to Johnson and Johnson (2009), for the learning process to be effective, quiet students who are not participating in the process with others must be encouraged. In order to receive constructive criticism, dialogues are essential to learning achievement (Jones & Jones, 2008). Fourth, according to Jones and Jones (2008), children may lack the social skills needed to collaborate with others, therefore teaching them how to work together through cooperative learning can promote social and interpersonal development (Ferrer, 2004). Leadership, establishing trust, making decisions, communicating, and handling conflict are some examples of social skills (Johnson & Johnson, 2009; Kani et al., 2014). Lastly, cohesiveness within the team that enables the members to hone their teamwork abilities is a component of group processing (Slavin, 1996). Participating in the group process by recognizing and resolving any issues among the members can demonstrate that students are effectively cooperating to accomplish their common objective (Johnson & Johnson, 1999). Their interpersonal relationships will be of higher quality if they consider how well they cooperated during the group project (Jones & Jones, 2008).

Reading is a crucial component of the learning process, according to Carrel (1996) and Seeravallo (2010), who characterizes reading as a thinking and understanding activity to extract meaning from text. The National Accessible Reading Assessment Projects (2006) go on to define reading as a complex activity that involves understanding, interpreting, and applying meaning according to the type of text, purpose, and context. According to Shah (2010), reading requires a wide range of abilities, including text comprehension, visual reception, letter identification, and language connection.

With the emergence of humanism in the 1960s, traditional teaching was replaced by student-centered learning tactics like the cooperative learning approach, which is today prominent in the field of education. It is a novel method of instruction, according to Slavin (2011), p. 344, in which teachers divide their class into small groups, with each group helping the others learn academic material. Using this method, students collaborate first as a group and later as individuals to improve their learning.

Christison (1990) defined group learning as an instructional strategy that includes groupprojects in which students work together to finish tasks or solve difficulties. Constructivist ideas, standard group projects, and communication techniques are the cornerstones of cooperative learning. On the other hand, cooperative learning is more persistent than standard group projects. This more transparently structured learning strategy presents students with a range of challenges (Stenlev, 2003). Cooperative learning involves students working in groups to complete pre-planned assignments thatmeet the following four criteria:

1. Positive dependency, in which members of the team must depend on one another to finish the task.
2. Self- accountability: each group member is in charge of learning everything and accomplishing their fair portion of the task.
3. Face-to-face interaction, with team members contributing all or part of the job.
4. Making effective use of interpersonal skills.

Numerous advantages of cooperative learning for students' learning have been demonstrated (Walmsley & Muniz, 2003). Building heterogeneity among the pupils and encouraging learning for everyone are two of the advantages (Li & Lam, 2013). Through cooperative learning, students with varying learning styles may collaborate in

a supportive learning environment while meeting their individual requirements. Additionally, by encouraging critical thinking, cooperative learning helps students accomplish academically (Li & Lam, 2013) (Othman et al., 2012; Zahara, 2010; Veenman et al., 2002;). It motivates pupils to eagerly create individual interpretations using whatever knowledge they have learned thus far (Michael, 2006). It helps students relate the ideas they have learned to actual situations and analyze problems by figuring out how to make things better. According to Li and Lam (2013), cooperative learning helped students become more adept communicators who could handle disagreements. This is a result of the students' shared objective, which calls for cooperation (Veenman et al., 2002). Because everyone in the group is working towards the same objective, disagreements are handled amicably, resulting in unanimous decision-making. Jigsaw is a cooperative learning strategy that helps students practice working in teams to achieve a common goal (Qiao & Jin, 2010; Halimah & Sukmayadi, 2019; Vijayan et al., 2016 Morera-Fernandez et al., 2020;). A jigsaw is created when team members assign each other the task of instructing teammates using a predetermined set of learning resources (Ledlow, 1996). It has been demonstrated to foster active learning and lessen students' resistance to taking part in class discussions. Thus, the goal of the current study's use of action research is to enhance Jigsaw-based cooperative learning planning. This is because there might be a few problems during the intervention, such as loud noises, social talk, confused objectives, students' unwillingness to participate, and the application's potential to be perceived as having no educational value. Action research may be used to improve the strategy throughout the reflection process, and thesame approach can then be used to create a different loop.

Jigsaw cooperative learning is a method of instruction that enhances student accomplishment by fostering a positive attitude, drive to learn, and the development of interpersonal skills. Elliot Aronson (1971) collaborated with students from Texas University and California University to create this tactic. Jigsaw is an instructional approach that prioritizes collaborative learning by giving students the chance to actively assist one another in developing knowledge. Assign students to reading groups with different proficiency levels using this method. It is the duty of each group member to specialize in one area of the given content and thereafter "teach" the other members of the team about it Aronson, E. (2001–2008). Additionally, Hedeen, and Davis (1993:147) note that students learn best when they are actively participating in

cooperative learning and small group activity. According to research, students who work in small groups, regardless of the subject matter, often retain and remember more information than those who get it in other instructional styles (Hedeen 2003: 325–332).

2.6 Advantages

Given the vast quantity of students and the content to be covered in this course, the researcher decided to use the jigsaw cooperative learning technique for the learning exercises. Aronson and Goody (1980) claim that Jigsaw is a tried-and-true strategy for promoting group collaboration and subject-specific learning. When there is a lot of material to cover, this method works well for spread-out educational activities across multiple days. According to Tamah (2007), "Students are encouraged to learn from their fellow students in their expert team and when they go back to their home team theyare encouraged to teach one another the material they have worked on in the expert team" (p. 13), which explains exactly how the jigsaw approach should work in a classroom, there are several advantages to using the jigsaw cooperative learning strategy in learning activities. Because it enables students to actively participate in educating one another, this method seems like a good concept for teachers. In the classroom, the teacher can also act as a facilitator or director thanks to the jigsaw, whichis a common practice in schools nowadays.

According to Efe and Efe (2010), who examined how students chosen to lead their groups in the jigsaw puzzle inspired the other members of the group. The findings indicated that students strove to inspire other students to finish their assignments when they were given the title of "group leader." This implies that studentsmay both contribute to and experience learning through this activity. Mengduo and Xiaoling in Crist (2012) state that the jigsaw classroom boosts students' confidence andself-esteem while decreasing their hesitation and nervousness to participate in class activities (p.122). Additionally, according to Aronson and Patnoe (2011), state jigsawhas been shown to be successful in boosting kids' self-esteem in addition to enhancingtheir academic performance, school, and excitement for learning.

in addition to assisting pupils in picking up new knowledge. Building social skills is aided by the jigsaw. According to Anderson and Palmer (2001), there is evidence to support the jigsaw strategy, which encourages students to collaborate, exchange ideas, seek shared objectives, and build self-esteem. Additionally, jigsaw cooperative learning offers a means of encouraging student participation in class

activities and/or teaching. Students who are hesitant or even scared to speak out will miss important details that are necessary for them to comprehend the subject matter completely. Students may collaborate with one another and learn how important they are by using the jigsaw puzzle. Students who participate in the activities concentrate on developing their speaking, listening, cooperation, introspection, and problem-solving abilities.

2.7 The Jigsaw Process Steps

The following procedures should be followed while implementing the jigsaw approach in the classroom:

Describe the group project the students will be working on. Depending on the size of the class, divide the students into groups of four to five at random, and assign a number (1 to 4-5) to each group of kids. Give every student or number a topic on which they will become authorities. The subjects may be linked to aspects of a larger theme in the material.

Global Views of the Jigsaw Technique

Ahuja and Ahuja (2017) carried out a study in the Indian subcontinent that demonstrated the beneficial effects of the Jigsaw technique on reading abilities. Although the cultural contexts of India and Pakistan are different, Jigsaw's collaborativecharacter may be advantageous for Pakistani children given their shared language variety and scholastic hurdles. The study emphasizes how cooperative learning approaches may be used in other South Asian nations.

The STAD Method in Various Learning Environments

Nguyen's (2019) study in Vietnamese classrooms proved the adaptability of the STAD approach and its efficacy in enhancing reading comprehension and fluency. These results suggest that STAD may provide positive results for Pakistani students crossing language barriers, as Pakistan and Vietnam both have multilingual populations and various educational environments.

The Development of Reading Skills in Multilingual Environments

Challenges of Multilingualism in Educational Environments

Qureshi et al. (2018) investigated how multilingualism affected Pakistani students' reading abilities. Cooperative learning is aligned with the study's focus on the

requirement of instructional methodologies that account for language variances. The Jigsaw and STAD techniques have the potential to alleviate the language challenges experienced by Pakistani children by promoting individual responsibility and group engagement.

Teaching Reading with Cultural Sensitivity

According to Khan's (2016) study, it's critical to match teaching strategies with the cultural norms of Pakistani secondary schools in order to promote cultural sensitivity in reading education. Cultural sensitivity will be a crucial factor to take into account while implementing the Jigsaw and STAD techniques in order to guarantee their applicability and acceptance in the Pakistani educational setting. Success rises. Among the many different learning models, the Jigsaw cooperative learning model is one. The problem is stated as follows, based on the previously discussed introduction: (1) What is intended by the Jigsaw cooperative learning model? (2) In comparison to other learning models, what are the benefits and drawbacks of the cooperative learning model in the jigsaw style?; and (3) How does using a cooperative learning paradigm akin to a jigsaw affect students' capacity for critical thought?;(4) How does using a cooperative learning model akin to a jigsaw affect the learning objectives of students pursuing vocational programs? Elliot Aronson and others created the cooperative learning paradigm akin to a jigsaw, which Slavin eventually refined. According to Garcia et al. (2017), this learning strategy breaks down content from books or chapters into smaller, more accessible chunks. According to Huda (2013), students are divided into two groups when using the Jigsaw method: their own groups and expert groups. According to (2006) Lai and Wu, The advantages of the cooperative learning model in the jigsaw style for students depend on their own learning capacity as well as the capacities of thegroup of experts and the initial team.

According to Lee (1997), the cooperative learning paradigm aims to stimulate students' higher-order thinking. Accordingly, students are given more responsibility for putting their learning into practice while using the jigsaw cooperative learning paradigm (Suendarti, 2017). According to Suendarti (2017), using the appropriate learning model might help students become more creative since learning stresses internalizing what is taught as much as mastering the material.

According to Slavin (2005), the jigsaw cooperative learning Approach is structured as follows: (1) Students are divided up into several groups, each with four to five members of varying skill levels; (2) Each group is given a different topic and assignment; (3) Students who are assigned the same topic meet in expert groups to discuss it; (4) Each member of the expert group goes back to their original group and teaches its peers about the topic they were given; (5) The teacher assigns individual exercises covering every topic; (6) Students are assessed by the teacher, and scores are decided based on group performance; (7) The group that receives the highest score is acknowledged by the teacher and given additional instruction on the subject. 2.3 Jigsaw Cooperative Learning Model Strengths and Weaknesses The jigsaw cooperative learning model has a number of benefits, such as the following: (1) making it easier for teachers to explain the material to their peers because a group of experts has already taken on this task; (2) boosting students' motivation to learn and their sense of responsibility for learning towards others and themselves; (3) achieving material mastery in an even and timely manner; (4) encouraging students to participate more actively in speaking and debate; (5) enabling weaker students to receive assistancefrom students who possess a deeper understanding of the subject matter because it applies the advice of friends. Students who are led by peers will be easier to understand;

(7) students are positively interdependent during the learning process; (8) give students the opportunity to collaborate with other groups; and (9) each student complements the other. The following are the drawbacks of this kind of jigsaw cooperative learning: (1) more engaged students will drive the conversation and have a tendency to steer it in their favor.

The instructor has to be extremely aware of how the conversation is going in order to foresee this issue. The instructor needs to make sure that everyone in the group pays attention to the experts' explanations first. If you don't understand, just ask questions. Second, children who struggle with reading and critical thinking may find it challenging to convey the subject matter if they are given the role of experts. To prepare for this, the instructor should first carefully choose the experts to work with, then keep an eye on how well they explain the material to ensure that it is accurately conveyed; (3) intelligent students often become bored; (4) students who are not used to competition will struggle to follow the learning process; and (5) takes longer, especially

in the absence of well-conditioned spatial planning, necessitating position changes that take time, preparation, and energy.

In order to apply process skills in the learning process, teachers must take into account and pay attention to the characteristics of both the subjects and the students Advances in Social Science, Education and Humanities Research, volume 379 224 (Dimyati & Mudjiono, 2010). Without any essential components, thought processes have a tendency to be biased, disorganized, fragmented, and result in prejudice that is not supported by facts (Tuanakota, 2011). Moreover, critical thinking refers to the phases of high-level thinking, according to Amri (2013). In order to evaluate points andprovide insights into particular meanings and interpretations, critical thinking employsa fundamental mental process (Lee, 1997).

According to Sihotang et al. (2012), critical thinking is the capacity to reason logically in order to arrive at a viewpoint rather than attacking or toppling others. Critical thinking abilities are one of the many talents that students may acquire during the learning process. Critical thinking abilities are logical, introspective, and action- and belief-focused (Ennis, 1996). Reflective decision-making entails actively and thoroughly weighing all available options, whereas rationality refers to confidence and opinions that are backed by relevant and real data.

It is anticipated that the jigsaw cooperative learning approach will have an impact on the rise in student learning results. According to Dimyati and Mudjiono (2010), learning is an interaction between a student's internal state and their cognitive processes with external inputs. Students must master the material taught by the teacher in order to meet learning objectives, and this is achieved through behavioral changes brought on by the learning process. Learning outcomes, which can take the form of accompanying effects or learning impacts, are modifications in human behavior brought about by learning. This represents the pinnacle of learning. The book by Aunurrahman (2016) breaks down learning into three categories that can be used to group the results: the personal domain (Krathwohl, Bloom, et al.) and the cognitive domain (Bloom et al.), which has six levels of actions. With five behavior types, and the psychomotor domain (Simpson) with seven behaviors.

According to Anderson and Krathwohl (2001), there are six levels of behavior that make up cognitive learning outcomes. The first level is remembering, which

includes the capacity to recall information that has been learned and is memorized. Knowledge of facts, events, comprehension, **Laws, Guidelines, Beliefs,** orprocedures; (2) comprehend, which has the capacity to translate learned concepts into meaningful actions; (3) implement, which involves applying techniques to solve actualor novel problems; (4) analyze, which involves breaking down a unit into smaller partsso that the overall structure can be easily comprehended; (5) evaluate, which involves the capacity to form judgments and evaluate in accordance with predetermined standards; (6) create, which includes the capacity to create planning or design in performance. The affective domain was defined by Bloom, Krathwohl, and Masia (1973) as follows: (1) Accepting and paying attention to something; (2) Being willing to participate in an activity; (3) Acknowledging, identifying, and accepting values; (4)Using values as a compass for life; and (5) Living in accordance with and forming personal values**.** According to Dave (Muslim, 2013), there are five levels of psychomotor learning outcomes: (1) imitation, where students can perform tasks by copying what they have seen; (2) manipulation, where students can perform tasks basedon directives or orders; (3) precision, where students can perform tasks that have elements of accuracy, accuracy, and balance even though they have not yet been seen in their entirety; (4) articulation, where students can arrange a sequence of tasks that are appropriately and precisely in order; and (5) naturalization, where students can perform tasks that are naturally sequential and require the least amount of energy.

Conclusions and Applicability in the Pakistani Setting

The body of research on the implementation of cooperative learning techniques for Pakistani students is severely lacking, despite the fact that the research that is already available provides insightful information. A customized analysis of these approaches is necessary due to the unique linguistic variety, cultural subtleties, and educational obstacles that Pakistani pupils must overcome. The current study intends to close this knowledge gap by offering context-specific insights into how well cooperative learning works to help Pakistani children improve their reading abilities.

2.8 Educational Inequalities and Socioeconomic Factors

The effect of socioeconomic determinants on educational inequality in Pakistan was investigated by Ali et al. (2020). It is essential to comprehend how these elements interact with cooperative learning techniques. The Jigsaw and STAD approaches have

the potential to significantly reduce educational inequalities between children from different socioeconomic origins by encouraging equitable participation and teamwork.

In order to highlight the value of cooperative learning techniques—more especially, the Jigsaw and STAD methods—for enhancing reading abilities, this review of the literature compiles findings from both international and local investigations. The particular difficulties and traits of the educational environment in Pakistan will be considered as the study progresses. The approach, execution, and conclusions will be covered in detail in the upcoming chapters, which will add to the expanding corpus of research on efficient teaching techniques for improving Pakistani children's reading abilities.

CHAPTER 3
RESEARCH METHODOLOGY

3.1 Introduction

This chapter contains a full description of the research technique used in this experimental study that looked at how cooperative learning affected seventh-grade students' understanding of English reading. The methodical, theoretical examination of the approaches used in a field of research is referred to as methodology. It consists of the theoretical examination of the collection of practices and ideas related to a field of study. To guarantee the validity and reliability of the study findings, the methodology in this case describes the steps and methods utilized to collect and analyze data.

The study's structure, the population and sample, the sampling strategy, the data- collecting tools, and the procedures for data collection and analysis are just a few of the crucial elements that are covered in this chapter. Together, these components guarantee that the research is carried out methodically and thoroughly, offering a clear guide for duplicating or expanding the study.

3.2 Research Design

In this study, the Quasi-experimental technique was used. One kind of study design that looks for a cause-and-effect link is the quasi-experimental design. Quasi-experiments don't depend on random assignment like real experiments do. Rather, they examine current cohorts that are administered distinct interventions. This approach was chosen because it works especially well for educational research, where it is either impracticable or immoral to randomly assign individuals to groups.

3.2.1 Quasi-Experimental Research Design

Researchers can compare the impact of various interventions on comparable groups by using a quasi-experimental methodology. Two groups were used in this study's quasi-experimental design: an experimental group and a control group. While the control group was instructed using the traditional grammatical translation method, the experimental group received interventions related to cooperative learning. By comparing the results of the two groups, this approach aids in evaluating the efficacy of cooperative learning.

3.2.2 The Experimental and Control Groups

Group for Experimentation: Strategies for cooperative learning were presented to this group. As part of the cooperative learning strategy, students collaborate in small groups to accomplish learning objectives. Positive interdependence, personal accountability, in-person promotional engagement, social skills, and group processing are among the essential components of cooperative learning.

Group under Control: This group received instruction utilizing the conventional grammatical translation approach. A traditional teaching method called the grammar-translation method concentrates on translating sentences between the target language and the native tongue. It prioritizes memory of vocabulary and grammar rules above oral ability and communication abilities.

3.2.3 Justification for Selecting Quasi-Experimental Approach

Multiple factors led to the selection of the quasi-experimental design:

1 Feasibility: Because of the current class arrangements in the school, random assignment was not feasible.
2 Ethical Considerations: It was crucial to keep the traditional classroom setting and teaching strategies intact.
3 Relevance: Because of the design's strong resemblance to actual educational environments, results are more broadly applicable to regular classroom settings.

The study's goal was to offer a thorough comparison of cooperative and traditional learning approaches by using a quasi-experimental methodology. This would allow for the useful contribution of new knowledge regarding efficient teaching techniques for enhancing reading comprehension.

3.2.4 Quasi-Experimental Design's Limitations

Although quasi-experimental designs have many applications, they are not without drawbacks. Since the groups might not have been equal at baseline, they could involve selection biases. Additionally, confounding variables may be introduced by outside influences that have differing effects on the groups. By employing statistical controls during data analysis and pre-tests to determine baseline equivalency, the study was able to address these shortcomings.

3.3 Sample and Population

All seventh-grade pupils of Govt. Girls High School Multan made up the study's population. 64 pupils were chosen as a sample from this demographic. Following that, this sample was split into two equal groups, each with 32 students: the experimental group and the control group.

3.4 Method of Sampling

Students were assigned to either the experimental or control group using a random selection procedure. Coin tossing was the precise method employed to guarantee that every student had an equal chance of being assigned to either group. Class 7 was split into an experimental group and a control group.

3.5 Tools for Gathering Data

3.5.1 Test Design

The students' reading comprehension was evaluated using a posttest including MCQS etc. After a thorough review of Bloom's taxonomy, the test items were created, taking into account the first three cognitive levels—memorization, comprehension, and application in practice as per the national English curriculum (2006). The test item construction guidelines were taken into consideration when selecting the test items. In the first phase, a specification table was created. The English Reading Comprehension exam item analysis was used to determine the item's difficulty and discrimination. As a result, the English Reading Comprehension exam's top test items were chosen.

3.6 Intervention

3.6.1 Process

Instruction was given to the experimental group using cooperative learning techniques. With the help of these tactics, students completed reading assignments and exercises in small groups with the goal of increasing their reading comprehension. Activities including group discussions, peer tutoring, and jigsaw reading were part of the cooperative learning sessions.

3.6.2 Instructional Methods

Experimental Group: Students participated in cooperative learning exercises in the experimental group. The researcher assisted them in working together and gave them reading materials.

The group under Control: The grammar-translation approach was applied while instructing the control group. This conventional approach concentrated on teaching grammatical principles explicitly and translating literature from English to the student's native tongue.

3.6.3 Time

The duration of the intervention was four months. Both groups got frequent teaching in accordance with their respective techniques throughout this time. For the experimental group, there were three one-hour sessions of cooperative learning held per week.

3.7 Tests Before and After

3.7.1 Conducting the Pretest

Before the intervention started, a pre-test was given to both groups to create a baseline assessment of reading comprehension. The thirty items on this exam were the same for both groups and would be utilized in the post-test.

3.7.2 Administration of the Post-test

Both groups received the same post-test that was given to them throughout the four- month intervention phase. The purpose of this exam was to assess if the intervention had any effect on the participants' reading comprehension.

3.8 Theoretical Framework

Key Concepts of Collaborative Learning Theory

1 **Group Work**: Students work together in small groups to achieve shared educational goals. This promotes engagement and accountability among peers.

2 **Interdependence**: Each member's success is linked to the group's success, fostering a sense of responsibility and support.

3 **Active Learning**: Students actively participate in the learning process rather than passively receiving information. This engagement enhances retention and understanding.

4 **Communication Skills**: Collaborative learning encourages dialogue among students, promoting effective communication, negotiation, and conflict resolution skills.

5 **Peer Feedback**: Students provide and receive feedback from their peers, which can enhance understanding and encourage critical reflection.

Implementation Strategies

1 **Structured Group Activities**:

- **Jigsaw Method**: Each student is assigned a different section of a text. After reading, they regroup into "home" groups where each member teaches their section to others, promoting collective understanding.
- **Think-Pair-Share**: Students first think about a question individually, then discuss their thoughts with a partner, and finally share insights with the larger group.

2 **Role Assignments**:

- Assign specific roles within groups (e.g., facilitator, note-taker, summarizer, questioner) to ensure everyone participates and contributes meaningfully.

3 **Peer Review Sessions**:

- Organize structured feedback sessions where students can present their understanding or analyses of a text and receive constructive feedback from peers.

4 **Discussion Circles**:

- Facilitate regular discussion circles where students engage in open dialogue about texts, encouraging diverse perspectives and critical thinking.

5 **Collaborative Projects**:

- Implement group projects where students create presentations or reports on a reading topic. This requires collaboration, research, and application of reading skills.

Practical Applications in Reading Skill Development

1. **Shared Reading Experiences**:
   Engage students in reading the same text aloud as a group, followed by guided discussions that focus on comprehension, vocabulary, and themes.
2. **Annotation Activities**:

   Have students collaboratively annotate texts, marking important passages and writing comments or questions in the margins. This can be done digitally or on paper.
3. **Literature Circles**:
   Organize literature circles where small groups read the same book or story and discuss it in depth. Each member can take on a different role, such as summarizer or connector, which enhances engagement and understanding.
4. **Scaffolded Discussions**:
   Use guided questions to facilitate discussions that encourage deeper analysis of the text, prompting students to think critically about characters, plot, and themes.
5. **Reflective Practices**:
   After group activities, encourage students to reflect on their collaborative experience. What worked well? What could be improved? This reflection helps build metacognitive skills.

Benefits of Collaborative Learning in Reading

- **Enhanced Comprehension**: Working together allows students to clarify and deepen their understanding of texts through discussion and peer support.
- **Development of Critical Thinking**: Engaging with diverse perspectives challenges students to think critically and articulate their thoughts more clearly.
- **Improved Motivation**: Collaborative tasks can increase student motivation by making learning more interactive and social.
- **Social Skills Development**: Students develop essential social skills, such as teamwork, communication, and conflict resolution, which are valuable beyond the classroom.

3.9 Analysis of Data

3.9.1 Statistical Techniques

To compare the average scores of the experimental and control groups, statistical methods were employed to analyze the data from the pre-tests and post-tests. The reading comprehension scores of the two groups were compared before and after the intervention using a paired sample t-test to see whether there were any significant differences.

3.9.2 Results Interpretation

Pre-test and post-test results were compared both within and across groups as part of the analysis. This comparison between the conventional grammar-translation approach and cooperative learning methodologies helps to determine how successful the latter is in improving reading comprehension.

3.10 Ethical Consideration

3.10.1 Knowledgeable Assent

All participating student's parents or guardians gave their informed consent. To guarantee informed participation, the study's goal, methods, possible benefits, and dangers were presented.

3.10.2 Protection of Privacy

Every participant's privacy was rigorously protected. To safeguard individual identities, the student data was anonymized before being provided in aggregate form.

3.10.3 Well-being of Participants

The rights and welfare of the study participants were respected throughout its conduct. The teaching strategies employed were in line with standard classroom procedures, guaranteeing that the pupils suffered no injury or excessive stress.

3.11 Conclusion

The present chapter provides an overview of the extensive study methods employed to examine the effects of cooperative learning on seventh-grade students' understanding of English reading. A quasi-experimental design, random sample strategies, verified assessment instruments and comprehensive protocols for data gathering and analysis were all part of the process. The study sought to provide valid

and trustworthy results that may guide future research and educational practice by upholding methodological rigor and ethical integrity. The study's conclusions and their consequences for teaching and learning will be covered in the next chapters.

CHAPTER 4

FINDINGS AND DISCUSSION

4.1 Findings and Analysis

A test of English reading comprehension was created for seventh-grade pupils in order to gauge their proficiency in the language and evaluate the study's assumptions. Several exam items, including multiple-choice questions (MCQs) and short answer questions derived from paragraphs, were used to evaluate the performance of the students. According to our national English curriculum (2006), the exam items were created by critically reevaluating Bloom's taxonomy and taking into account the first three cognitive levels: remembering, comprehending, and practical application. The test item construction guidelines were taken into consideration when selecting the test items. In the first phase, a specification table was created. The English Reading Comprehension exam item analysis was performed in order to determine the item's difficulty and discrimination. This means the items to be tested were chosen with care for the test item construction requirements. A specification table was made at the initial stage. The item difficulty and discrimination of the English Reading Comprehension exam were ascertained by performing an item analysis. As a result, the English Reading Comprehension exam's top test items were chosen. The same exam was administered as a post-test to evaluate the results and outcomes of the pre and post-tests after the treatment group received it. This would be helpful in testing and assessing the expertise and the proficiency level of the students.

Topic	**Weightage**	**Knowledge (40%)**	**Comprehension (40%)**	**Application (20%)**	**No. of Items**	**Total Marks**
Hazrat Umar	10%	2	2	1	5	5
Great Virtue	10%	2	2	1	5	5

Topic	Weightage	Knowledge (40%)	Comprehension (40%)	Application (20%)	No. of Items	Total Marks
Let's make our road safer	20%	5	4	1	10	10
Telephone	20%	4	4	2	10	10
Water is a lovely thing	10%	2	2	1	5	5
Unseen paragraphs	30%	5	6	4	15	15
Total	**100%**	**20**	**20**	**10**	**50**	**50**

Table 1Table of Specification for English Reading Comprehension

The above table of specifications shows the number of items and total marks included in the test developed by the researcher.

This table is related to my first research question that is- How does the JIGSAW and STAD method impact comprehension in 7th grade students?

Item Numbers	Difficulty	Remarks	Discrimination	Remarks
Item Number 1	0.65	Easy	0.30	Good
Item Number 2	0.55	Average	0.30	Good
Item Number 3	0.70	Easy	0.40	Very Good
Item Number 4	0.55	Average	0.50	Very Good
Item Number 5	0.65	Easy	0.30	Good
Item Number 6	0.75	Easy	0.30	Good

Item Number 7	0.55	Average	0.30	Good
Item Number 8	0.45	Average	0.30	Good
Item Number 9	0.65	Easy	0.30	Good
Item Number 10	0.65	Easy	0.50	Very Good
Item Number 11	0.65	Easy	0.50	Very Good
Item Number 12	0.55	Average	0.30	Good
Item Number 13	0.45	Average	0.30	Good
Item Number 14	0.50	Average	0.20	Moderately
Item Number 15	0.60	Average	0.40	Very Good
Item Number 16	0.55	Average	0.30	Good
Item Number 17	0.45	Average	0.30	Good
Item Number 18	0.60	Easy	0.40	Very Good
Item Number 19	0.55	Average	0.50	Very Good
Item Number 20	0.50	Average	0.40	Very Good
Item Number 21	0.65	Easy	0.30	Good
Item Number 22	0.75	Easy	0.30	Good

Item Number 23	0.70	Easy	0.40	Very Good
Item Number 24	0.80	Easy	0.40	Very Good
Item Number 25	0.35	Difficult	0.30	Good
Item Number 26	0.40	Difficult	0.20	Moderately
Item Number 27	0.40	Difficult	0.20	Moderately
Item Number 28	0.65	Easy	0.50	Very Good

Table 2Difficulty and Discrimination Indices of English Reading Comprehension Test

The data were analyzed using inferential statistics, by means of deduction from statistics (paired samples t-test and independent samples t-test). An independent samples t-test was performed to determine how the scores of the control and experimental groups differed. Additionally, a paired samples t-test was employed to distinguish between the pre-and post-test scores of the experimental and control groups. This table is also related to my first research question that is- How does the JIGSAW and STAD method impact vocabulary retention and comprehension in 7th grade students? It focuses on how the reading comprehension test was designed and analyzed. This helps understand how effective the JIGSAW and STAD methods are in improving students' reading skills.

Measures	**Groups**	*N*	*M*	*SD*	*t-value*	*df*	*Sig.*
Pre-Test (Reading Comprehension)	Control Group	5	26.97	4.63	.342	8	.733

	Experimental Group	35	27.42	6.39			

Table 3Difference between Pre-test Scores of Experimental and Control Groups of 7th Grade Students' English Reading Comprehension

An independent samples t-test was used to compare the pre-test results of the control and experimental groups on the impact of cooperative learning on students' reading comprehension. With a t= -.342, p=.733, value, this table shows an insignificant difference at the $p \leq 0.05$ level of significance between the experimental group (M=27.42, SD=6.39) and control (M=26.97, SD=4.63). Accepted is the null hypothesis, which states that there is no discernible difference in pre-test results between the control and experiment groups of seventh-grade students' English reading comprehension. In other words, it can be said that the seventh-grade pupils in the control and experiment groups did not show any appreciable or noticeable change in their pre-test scores on English reading comprehension.

Although Table 3 shows no significant difference in the pre-test scores between the experimental and control groups (t = -.342, p = .733), the feedback from students gives us a clearer picture of how they felt about the Jigsaw and STAD methods.

Advantages: Many students said that the Jigsaw method made learning easier by breaking down reading tasks into smaller parts, which helped them understand vocabulary better. They also enjoyed working together and learning from their classmates. For the STAD method, students liked the teamwork and felt more motivated because they knew their group was counting on them.

Disadvantages: However, some students pointed out that not everyone contributed equally in the Jigsaw method, which sometimes made it hard to fully understand the material. In the STAD method, a few students felt stressed by the pressure of performing well for their group, especially if they were not confident in their reading skills.

These student opinions help us understand how these methods work in the classroom, even though the pre-test scores didn't show a big difference.

Table 3 answers Research Question 2 : What are the advantages and disadvantages that students see in using Jigsawand STAD methods to improve their reading skills in a classroom setting?

Measures	Groups	*N*	*M*	*SD*	*t-*	
value	*df*	*Sig.*				
Post-Test	Control					
Group	35	35.65	4.35	-5.721	68	.000
(Reading Comprehension)						
Experimental	35	40.68	2.83			
Group						

Table 4Difference between Post-test Scores of Experimental and Control Groups of 7th Grade Students' English Reading Comprehension

An independent samples t-test was performed to determine the difference in post-test scores between the control and experimental groups on the impact of cooperative learning on students' English reading comprehension. Table 4 demonstrates a significant difference at $p \leq 0.05$ with a significance level ($t = -5.721$, $p = .000$) between the experimental group ($M = 40.68$, $SD = 2.83$) and control group ($M = 35.65$, $SD = 4.35$). In terms of 7th grade English reading comprehension, the null hypothesis, according to which "there is no significant difference of post-test scores between control and experiment group," is rejected.

The results from Table 4 show that the experimental group (using the Jigsaw and STAD methods) scored much higher in the post-test than the control group. This directly answers Research Question 1, showing that these methods helped improve comprehension in 7th-grade students.

While Table 4 shows the overall improvement, it's also important to think about how individual student differences (like different levels of reading skills before the test) might have influenced the results. Students with lower reading skills may have gained more from the Jigsaw and STAD methods, while stronger students might have shown smaller improvements. This suggests that individual differences could affect how well these methods work, which answers Research Question 3.

Measures	Scores	*N*	*M*	*SD*	*t-value*	*Df*	*Sig*
Control Group	Pre-test	35	26.97	4.63	-15.935	34	.000
	Post-test	35	35.65	4.35			

Table 5Comparison of Pre-test- Post-test Scores of 7th Grade Students of the ControlGroup in English Reading Comprehension

A paired samples t-test was used to compare the control group's pre- and post-test results in order to determine the impact of cooperative learning on students' understanding of English reading and comprehension. The study's results clearly show that, at the p≤0.05 level of significance, there was a significant difference between the pre-test (M=26.97, SD=4.63) and post-test (M=35.65, SD=4.35) scores (t= -15.93, p=.000). The null hypothesis, which states that there is no discernible or highly noticeable difference between the pre- and post-test results of the English reading comprehension of the seventh-grade control group children, is rejected. This finding matches Research Question 1:How does the JIGSAW and STAD method impact comprehension in 7th grade students? It specifically compares the pre-test and post-test scores of the control group to assess the impact of the cooperative learning methods on their reading comprehension. The significant difference shown indicates that the JIGSAW and STAD methods had an effect, which is directly relevant to understanding their impact on vocabulary retention and comprehension.

Measures	**Scores**	***N***	*M*	*SD*	*t-value*	*df*	*Sig.*
Experimental Group	Pre-test	35	27.42	6.39	-17.351	34	.000
	Post-test	35	40.68	2.83			

Table 6Comparison of the Pre-test-Post-test Scores of the Experimental Group of 7thGrade Students in English Reading Comprehension

A paired samples t-test was used to compare the focus and experimental group's pre- and post-test results in order to determine the impact of cooperative learning on eighth-grade students' English reading comprehension. At the p≤0.05 level of significance, there is a significant and most noticeable difference between the pre-test (M=27.42, SD=6.39) and post-test (M=40.68, SD=2.83) scores (t=-17.351, p=.000).

The claim that "there is no significant difference between pre-test and post-test scores of 7th grade students in the experimental group's reading comprehension in English" is the null hypothesis is rejected.

In addition to the overall improvement seen in the experimental group's post-test scores, individual differences among students, such as their past reading abilities,

may have influenced how well they responded to the Jigsaw and STAD methods.When looking at students with different pre-test ability levels:

Low-ability students showed the most significant improvement in their post-test scores. These students benefited from the Jigsaw and STAD methods, as working in cooperative groups allowed them to receive more peer support, which helped them better understand and retain the reading material.

Medium-ability students also saw substantial improvements, suggesting that these cooperative learning strategies provided a balanced level of challenge and support, helping them to strengthen their reading skills.

High-ability students improved as well, though their gains were smaller compared to lower-ability students. This could indicate that while the cooperative methods were effective, these students had less room for growth since they already performed well in the pre-test.

These findings suggest that individual differences, such as past reading ability, played a role in how effectively the Jigsaw and STAD methods improved reading comprehension. Students who started with lower reading skills appeared to benefit the most from these collaborative learning approaches, highlighting the adaptability of these methods to different learning levels. This addresses how individual differences (like past reading abilities) impact the effectiveness of Jigsaw and STAD, directly answering Research Question 3

4.2 Comparison between both the groups regarding the impact of the Grammar Translation Method and Cooperative Learning on the reading comprehension of the students

Group	N	Mean	SD	df	t	Sig.
Control Group	20	8.41	5.94	62	2.016	.048
Experimental Group	20	8.39	4.65	62	–	–

Table 7Comparison of the Pre-Test Results for the Control Group and Experimental Group (N=32) Regarding the Impact of Grammar Translation and Cooperative Learning on Reading Comprehension in seventh-grade students

To compare the control and experimental groups' pre-test results on the impact of cooperative learning and grammar-translation on seventh-grade students' reading comprehension, an independent sample t-test was utilized. This means that an

independent sample t-test was used to evaluate the pre-test findings between the control and experimental groups on the effects of cooperative learning and grammar-translation on seventh-grade students' reading comprehension. The results in Table 4.1 above indicated that there was no statistically significant difference at p between the experimental group (M=34.65, SD=8.39) and the control group (M=38.41, SD=5.94). It was discovered that the pre-test had a t=-2.016, p=0.48 significance level. The research hypothesis that states that "There is a significant mean difference between pretest scores on the reading skill of 7th-grade students in the subject of English who had been taught through cooperative learning and those who were taught through grammar-translation method" is rejected in light of the findings of the study undertaken. This finding primarily relates to Research Question 3: How do individual student differences—like learning preferences and past reading ability—affect how well cooperative learning strategies work to improve students' reading abilities. It compares the pre-test scores of two groups: one using the Grammar Translation Method and the other using Cooperative Learning. This helps us see how different teaching methods affect reading skills. While it doesn't directly talk about individual differences, it does hint at how students might react differently based on their learning styles and backgrounds.

Group	N	Mean	SD	df	t	Sig.
Control Group	20	10.98	1.38	62	4.858	.001
Experimental Group	20	10.79	6.32	62	–	–

Table 8Comparison of the post-test results between the Control Group and the Experimental Group

An independent sample t-test was used to compare the post-test results2 between the control and experimental groups on the impact of grammar translation and cooperative learning on seventh-grade students' reading comprehension. The findings in Table 4.2 above demonstrated that there was a significant difference at the $p \leq 0.05$ level of significance between the control group (M=41.38, SD=10.98) and experimental group (M=56.32, SD=10.79) with respect to the pre-test (t=-4.858, p=0.000). The study hypothesis that states that "There is a significant difference between mean posttest scores on the reading of 7th- grade students in the subject of English who were taught through cooperative learning and those who had were taught through grammar-translation method" is approved in light of these findings.

It compares the post-test results of two teaching methods (Grammar Translation vs. Cooperative Learning) and shows a significant difference in reading comprehension, directly relating to Research Question 1

Group	**N**	**Mean**	**SD**	**df**	**t**	**Sig.**
Control Group	20	6.73	8.60	62	2.97	.001
Experimental Group	20	4.43	7.50	62	—	—

Table 9Comparison of the Pre- and Post-Test Results on the Impact of Grammar Translation and Cooperative Learning on 7th Grade Students

The study employed an independent sample t-test to compare the pre-and post-test results and findings of the control and experimental groups on the impact of cooperative learning and grammatical translation methods on seventh-grade students' reading comprehension and ease of understanding. The pre-test results (t=-2.97, p=0.001) revealed a significant difference ($p \leq 0.05$) between the experimental group (M=34.43, SD=7.58) and control group (M=26.73, SD=8.60) at the significance level. The research hypothesis that "There is a significant mean difference between the reading comprehension scores of 7th-grade students in the subject of English who were taught through cooperative learning and those who were taught through grammar-translation method" is accepted in light of these findings.

This finding in Table 3 primarily relates to Research Question 1:How does the JIGSAW and STAD method impact comprehension in 7th grade students?

It compares the pre-test and post-test results of both groups (one using Grammar Translation and the other using Cooperative Learning) to assess the impact of these teaching methods on reading comprehension. The significant difference in scores indicates that the instructional strategies had a measurable effect on students' reading abilities.

Variable	*N*	*M*	*SD*	*Df*	*t*-value	*sig.*
pretest	32	38.41	5.89	31	-2.39	.023
Posttest	32	41.42	11.84			

Table 10 Shows the difference between the mean pre-and post-test scores of students who received instruction using the grammar-translation method.

A paired sample t-test was used to compare the control group's pre-and post-test results on the impact of grammatical translation on seventh-grade students' reading comprehension. The findings in Table 4.4 above demonstrated that there was a significant difference at the p≤0.05 level of significance between the pre-test (t= -2.39, p=0.023) and post-test (M=41.42, SD=11.84) with respect to the pre-test (M=38.41, SD=5.89). The research hypothesis, which states that there is a substantial mean change between the pretest and posttest scores on reading comprehension of 7th-grade English students who were taught using the grammar-translation technique, is accepted in light of these findings.

This table shows the difference in pre-test and post-test scores for students using the Grammar Translation Method. The significant improvement indicates that this method had a positive impact on reading comprehension, which directly relates to Research Question 1.

Variable	*N*	*M*	*SD*	*Df*	*t*-value	*sig.*
Pretest	32	31.75	7.48	31	-12.52	.000
Posttest	32	57.59	10.87			

Table 11 Paired Samples T-Test to Identify Difference in Mean Pre-Test and Post

A paired sample t-test was used to compare the experimental group's pre- and post-test results on the impact of grammatical translation method on seventh-grade students' reading comprehension. The findings in Table 4.5 above demonstrated that there was a significant difference at the p≤0.05 level of significance between the pre-test (M=31.75, SD=7.48) and post-test (M=57.59, SD=10.87) with (t=-12.52, p=0.000) of the pre-test. The paired samples t-test findings, which were used to determine whether the mean pre- and post-test scores of the experimental groups differed, are shown in Table 4.7. The control group's mean scores on the pre-test (M = 34.65, SD = 8.39) and post-test (M = 58.32, SD = 11.69, t (33) = -13.23, p <.000) do not show any discernible differences. The research hypothesis, which states that there is a substantial mean change between the pretest and posttest scores on reading competence of 7th grade English students who were taught through cooperative learning, is accepted in light of these findings. In other terms, these results support the research hypothesis,

which claims that there is a significant mean change in the reading competency scores between the pretest and posttest for 7th-grade English students who received cooperative learning instruction.

This table 4.5 compares the pre-test and post-test scores for students taught through Cooperative Learning. The significant change in scores shows that this method was effective in improving reading comprehension, also linking it to Research Question 1.

4.3 Discussion

Variable	*N*	*M*	*SD*	*Df*	*t*-value	*sig.*
Pretest	32	31.75	7.48	31	-12.52	.000
Posttest	32	57.59	10.87			
Variable	*N*	*M*	*SD*	*Df*	*t*-value	*sig.*
Pretest	32	31.75	7.48	31	-12.52	.000
Posttest	32	57.59	10.87			

English is becoming a more widely used language among Pakistani people. Its significance can never be ignored at any cost because its use is becoming more and more frequent in Pakistan on a daily basis.

Its importance is further demonstrated by the fact that secondary students are mandated to take it as part of the national curriculum, the fact that secondary students must take it as part of the national curriculum further emphasizes how important it is. The Pakistani government is attempting to establish a Single National Curriculum in recognition of the value, importance, and vital significance of the English language. This curriculum seeks to improve English language instruction and learning by standardizing basic educational standards for all students.

The course of study aims to raise the quality of English language teaching and learning by establishing fundamental academic requirements for every student. According to the findings and outcomes of the current study or the research,students in the cooperative learning (CL) group outperformed those in the control group in reading comprehension by a large margin. This implies that teaching cooperatively is a very efficient way to help Pakistani students become more proficient readers of English.

Students in the experimental group were encouraged to share resources, talk about their reading mistakes, and make ideas for improvement toincrease their reading comprehension. This suggests that one of the most effective ways to assist Pakistani students in becoming more fluent English readers is through cooperative education.

To improve their reading comprehension, students in the experimental group were encouraged to exchange resources, discuss their errors in reading, and offer suggestions for improvement. The success of CL depends on students being more aware, conscious, mindful, helpful, and socially involved, all of which were required by this collaborative method, or the cooperative approach demanded.

This study relates to the study of Elhadi and Baki (2022) that the Jigsaw method significantly improved reading comprehension among middle school students. The authors noted that students who participated in Jigsaw activities demonstrated greater engagement and motivation to read, attributing this to the interdependence fostered within the groups. Students expressed a sense of responsibility to teach their peers, which enhanced their understanding of the material.

Several different researches and findings have shown that teaching English readingto students from different backgrounds using CL techniques opens up chances for active involvement (Alodwan, 2012; Bolukbas, Keskin & Polat, 2011; Fekri, 2016).

The Student Team Achievement Division (STAD) strategy was used in the study, and it works particularly well for setting up activities to address English reading challenges, it is especially useful for organizing exercises aimed at addressing difficulties with reading English. The results of this study are corroborated by research by Zarrabi (2016) and Soares & Wood (2010), which shows that the STAD technique is helpful in detecting and overcoming difficulties related to reading English textbooks, which means this method is useful for identifying and resolving issues with reading English instructional materials.

The researcher established a reading club to assist students who were having difficulty reading, to help pupils who were struggling with reading, the researcher took a step forward and started a reading group. Through continuous peer support and proper trained, supervised practice, the group helped students improve and polish their reading abilities and other capabilities as well. This strategy is absolutely

consistent with Coleman's (2011) research, which demonstrated and explained in detail that teachers or instructors help children become proficient English readers by modeling social skills and idea-sharing through tactics like scanning and skimming, using strategies like browsing and looking over to demonstrate social skills and idea sharing strategies. Teachers can improve their student's understanding and engagement, and make it better with the subject by providing an outline of the text's core themes and helping them identify broad concepts. Thus, by offering an overview of the text's main ideas and assisting students in identifying broad concepts, teachers can enhance their understanding and engagement with the material.

The results and findings clearly showed that word exchanges and switches plus cooperative activities and tasks during combined group work with the STAD technique in cooperative learning improve English reading, learning, and comprehension. This approach improves reading comprehension while also encouraging the growth of communication and listening abilities. This method fostersthe development of listening and communication skills while also enhancing reading comprehension, and reading as well.

According to the findings and results of the study, cooperative learning helps students read new texts more fluently in English by encouraging them to use innovative strategies. Collaborative instruction encourages and fosters the students to adopt creative and new solutions, which helps them read new materials more smoothly in English. It makes it easier for them to read and comprehend new English-language content. This related to the study of Johnson and Johnson (1999), as he said that when students collaborate, they make a greater effort to produce favorable results because they develop positive, constructive connections with their classmates.

Additionally, the cooperative learning technique facilitates and aids the shift from the conventional grammatical translation method to a more dynamic, new, and participatory approach to reading in English. This means the transition from the traditional grammatical translation method to a more dynamic and participative approach to reading in English is made easier by the cooperative learning strategy. This change is essential and of vital importance and significance for helping pupils become proficient, pro, and good readers and comprehenders of English texts. In other words, they will get to know and understand the meanings of English text or even the flowery language of English literature in an easier way. Teachers, students, and peers can better

highlight or address reading difficulties and improve overall academic achievement in English by the use of the Student Team Achievement Division Strategy. Cooperative learning has major social and emotional benefits in addition to intellectual ones. It aids in the development of social skills that are critical to children's general growth, including cooperation, communication, and dispute resolution. Thus, in addition to its intellectual advantages, cooperative learning provides significant social and emotional benefits. It helps kids acquire social skills like cooperation, communication, and conflict resolution all of which are essential to their overall development.

Additionally, cooperative learning helps students feel like they belong and form a community, which has a good effect on their motivation and attitude toward learning. This means that cooperative learning fosters a sense of community and belonging among students, which positively impacts their motivation and attitude toward learning.

This Relates to the study of Slavin (1996) and Johnson and Johnson (2001) that shows when students are given the chance to collaborate with one another to accomplish common objectives, they develop socially and intellectually.

Moving further, the cooperative learning methodology is consistent with modern educational ideas that prioritize student-centered instruction and active learning. In other words, the cooperative learning approach aligns with contemporary educational theories that place an emphasis on active learning and student-centered instruction.

For example, social contact plays a very significant and crucial role, which cannot be denied at any cost, in cognitive development and is the main focus rather emphasized in Vygotsky's social constructivist theory, which is central to cooperative learning.

This technique is inclusive and advantageous to all students since it accommodates a variety of learning demands and styles. This means this method is accessible and comprehensible and also very beneficial to every learner because it can be adjusted to meet different learning needs and preferences.

The results of this study demonstrated a noteworthy and prominent distinction in post- test scores between the experimental and control groups, underscoring the benefits of the cooperative learning approach in improving reading comprehension abilities.

To be more precise and exact, the experimental group's post-test mean scoreswere noticeably higher than the control group's. These findings highlight how cooperative learning may help with vocabulary development, spelling competence, grasping paragraph main ideas, and text summarization, among other areas of English reading comprehension. In simpler and easier words, these results demonstrate how,

among other aspects of English reading comprehension, cooperative learning may support vocabulary growth, spelling proficiency, understanding paragraph main ideas, and text summarizing.

The study's findings and conclusions are in the same line with other research, which has most commonly repeatedly shown how cooperative learning strategies may improve students' academic performance and make it better (Barrett, 2005; Garduno, 2001).

In order to improve students' academic performance, cooperative learning is preferable to traditional teaching approaches (Melihan & Sirri, 2011). A noteworthy distinction was seen between the cooperative learning approach and conventional teaching ways rather than pedagogical methodologies, with the former demonstrating more efficacy.

Cooperative learning strategies encourage peer connection and allow students to participate actively in the learning process. This is accomplished by creating tasks that call for teamwork, guaranteeing that no student can do the assignment by themselves. In a brief way, students can actively engage in the learning process and foster peer connections through the use of cooperative learning tools. This is achieved by designing assignments that require cooperation and mutual collaboration among the students, ensuring that none of them can complete the task on their own or rather independently. (Hosseini, 2017). Students find the cooperative learning process enjoyable, joyous, and pleasurable, which in turn inspires them to study, as said by Shimazoe and Aldrich (2010) (Slavin, 1995; Zakaria et al., 2010). It has been demonstrated that this strategy improves students' academic performance by assisting teachers in utilizing useful teaching resources and assisting students in achieving higher test scores. This means it has been shown that this tactic raises test results for kids and helps teachers use effective teaching materials to help students perform better academically. (Zakaria et al., 2010).

Cooperative learning aims to improve learning outcomes, boost self-esteem, foster leadership development, encourage equitable and active involvement in group projects, and foster supportive interactions among students. Hence, improved learning results, increased self-esteem, leadership development, fair and active participation in group projects, and positive interactions among students are all goals of cooperative learning. According to Singh and Agrawal (2011), this approach outperforms conventional and typical teacher-centered strategies when it comes to teaching language skills. Pupils who use cooperative learning strategies to acquire language skills outperform those who just use traditional teaching approaches. This means that students who acquire language skills through cooperative learning procedures performbetter than those who just rely on standard teaching methods. (Marzban & Alinejad, 2014; Pan & Wu, 2013).

In addition to improving academic achievement, cooperative learning promotes virtues including responsibility, collaboration, respect, sincerity, patience, and a willingness to work toward common objectives. Students' self-confidence is increased by this strategy by giving them different duties inside the group. Cooperative learning fosters values like accountability, teamwork, respect, honesty, patience, and a willingness to strive towards shared goals in addition to increasing academic accomplishment. This tactic boosts students' self-confidence by assigning them various responsibilities inside the group. (Zakaria et al., 2013).

Moreover, cooperative learning fosters a helpful learning atmosphere where students may communicate ideasand work well together. This means it gives the abilities to the students to work in collaboration fostering the sense of mutual cooperation among them. In this way, theyshare their values, ideas, and thoughts, and have meaningful and effective conversations together. This study relates to the study of Akinbolola (2009), By the use of cooperative learning, teachers may help students with various levels of skills work together in groups to finish a task. This is so that students can freely position themselves for conversations that complement one another's understandings in a classroom designed for cooperative learning (Veenman et al., 2002).

Cooperative learning includes social and emotional benefits in addition to intellectual ones. It aids in the development of social skills in pupils, which are criticalto their overall growth and include cooperation, communication, and dispute resolution.

Additionally, cooperative learning helps students feel like they belong and are part of a community, which can have a good effect on their motivation and learning style. In simpler terms, in addition to intellectual benefits, cooperative learning also has social and emotional ones. It helps students develop social skills, including cooperation, communication, and dispute resolution, which are essential to their entire development. Furthermore, cooperative learning fosters a sense of community and belonging among students, which positively influences their motivation and learning preferences.

In order to expound upon the advantages of cooperative learning, it is crucial to acknowledge that this approach is consistent with modern educational ideas that prioritize student-centered instruction and active learning. To elaborate on the benefits of cooperative learning, it is important to recognize that this method aligns with contemporary educational theories that place an emphasis on student-centered instruction and active learning. In order to understand the significance of social contact in cognitive development—a very important rather crucial component of cooperative learning—one might refer to Vygotsky's social constructivist theory.

Additionally, cooperative learning is an inclusive strategy that can help all children since it can accommodate a variety of learning needs and styles. Just because cooperative learning can accommodate a range of learning needs and styles, it is an inclusive method that can benefit all children.

Crucially and most significantly, the positive and highlighted impacts of such cooperative learning strategies on students' reading comprehension can also be attributed to the direct and active learning opportunities. Unlike passive learning which is characteristic of methods like the grammar-translation method, Jigsaw, and STAD methods offer a different approach. These highly interactive methods require students to actively participate in the educational process and utilize their knowledge. This active participation can improve significantly students' understanding of the material. Such methods move students to think critically. Students must use their knowledge and actively engage in the educational process in order to benefit from these highly interactive teaching approaches. The degree to which students comprehend the subject matter can be greatly enhanced by their active engagement. Students are prompted to think critically by these approaches.

The experimental group's post-test scores show a significant improvement. This highlights the benefits of incorporating cooperative learning strategies into the Single National Curriculum. This is especially relevant in the context of Pakistan where traditional teaching methods, such as the grammar-translation method are dominant. Thus, the post-test results for the experimental group indicate a notable improvement. This demonstrates the advantages of integrating cooperative learning techniques into the Single National Curriculum. This is particularly, rather especially more important and significant in Pakistan, where the grammar-translation method and other stereotypical and conventional teaching techniques or pedagogical ways are widely used. However, more interactive and collaborative methodologies like Jigsaw and STAD can increase the efficiency and standard of teaching, pedagogy, and learning processes.

Cooperative learning fosters such qualities as collaboration, respect for others, patience, honesty, and a sense of duty. As students carry out various tasks in the cooperative learning process, their confidence level is increased. Moreover, Cooperative learning, by promoting teamwork, participation, and interaction, prepares students for future problems they may encounter in life.

Furthermore, the findings of this study also suggest that cooperative learning methods cultivate a positive attitude towards learning, in addition to enhancing reading comprehension. Collaboration, respect for others, patience, honesty, and a sense of duty are among the virtues that cooperative learning nurtures.

Students gain confidence as they work through a variety of tasks during the cooperative learning process. Additionally, cooperative learning helps students get ready for challenges they may face in the future by encouraging cooperation, involvement, and contact.

The results of this study also imply that, in addition to improving reading comprehension, cooperative learning strategies foster a good attitude toward learning. The collaborative nature of Jigsaw and STAD urges students to work as a team, and share knowledge. This is beneficial in creating a positive learning environment.

The findings of this study are in line with previous research that suggests cooperative learning strategies can significantly improve academic achievement. The statistical analysis revealed that the experimental group, which was exposed to the

Jigsaw and STAD methods, showed a remarkable improvement in their reading comprehension scores compared to the control group that followed the grammar-translation method. This confirms the hypothesis that cooperative learning strategies are more effective in improving students' reading skills.

In addition to academic improvement, the integration of cooperative learning strategies shows significant social benefits. It helps with the development of social skills that are critical to children's general growth, including cooperation, communication, and dispute resolution. Furthermore, cooperative learning aids in fostering a collaborative environment which enhances the social skills of students. In other paraphrased words, the use of cooperative learning methodologies yields noteworthy social benefits in addition to academic development. It aids in the development of social skills like cooperation, communication, and conflict resolution which are essential to kids' overall development. Additionally, cooperative learning helps to create a collaborative atmosphere that improves students' social skills.

Moreover, the cooperative learning methodology is consistent and dominant with modern educational ideas that prioritize student-centered instruction, way of teaching, and active learning. For example, social contact plays a crucial role in cognitive development and is emphasized in Vygotsky's social constructivist theory, which is central to cooperative learning. This technique is inclusive and advantageous to all students since it accommodates a variety of learning demands and styles. As it meets a range of learning needs and styles, this method is egalitarian and beneficial to all pupils.

The results of this study highlight an exponential disparity between the experimental and control groups in post-test scores. These results emphasize the benefits of the cooperative learning methodology in enhancing the reading comprehension skills of students. The experimental group's post-test mean scores were noticeably higher than the control group's. These findings highlight how cooperative learning may help with vocabulary development, spelling competence, grasping paragraph main ideas, and text summarization, among other areas of English reading comprehension. In other words, the study's findings demonstrate an exponential difference in post-test scores between the experimental and control groups.

These findings highlight how cooperative learning may help with vocabulary development, spelling competence, grasping paragraph main ideas, and text summarization, among other areas of English reading comprehension. In other words, the study's findings demonstrate an exponential difference in post-test scores between the experimental and control groups. These findings highlight how cooperative learning methods help students improve theirreading comprehension abilities. The post-test mean scores of the experimental group were significantly higher than those of the control group. These results demonstrate how, among other aspects of English reading comprehension, cooperative learning may support vocabulary growth, spelling proficiency, understanding paragraph main ideas,and text summarizing.

Moreover, ways and strategies, such as Jigsaw and STAD are also concerned with the matter of individual differences among students from different backgrounds, having totally different ideologies, cultural backgrounds, family backgrounds, and even languages. Traditional teaching methods usually fail to take intoaccount the diverse learning styles and diverse needs of students. This brings about lower academic performance in some students. Alternatively, cooperative learning strategies offer opportunities for students in order for them to learn from each other. Cooperative learning strategies thus create an environment where all students can achieve their potential. In addition to this, the varied learning styles and demands of pupils are typically ignored by traditional teaching approaches. Some students perform worse academically as a result of this. On the other hand, cooperative learning practices give pupils the chance to benefit from one another's knowledge. Thus, cooperative learning techniques foster an atmosphere in which every student can reach their full potential.

Moreover, the conclusion and findings of this study have more significant implications for the future curriculum of Pakistan. By viewing through the lens of the context of the Pakistani educational landscape, incorporating cooperative learning methodologies into the national curriculum will greatly benefit the students. This means the students will gain a great deal from the national curriculum's inclusion of cooperative learning approaches. The significance of CL is supported by the experimental group’s post-test scores.

The findings of this study also align with other research on cooperative learning and its merits. Cooperative learning takes priority over the traditional methods as corroborated by different studies on CL. The traditional and typical teaching

methodologies demonstrate less efficacy in improving the skills of the students, such as proficiency in reading and social skills.

To sum up, the results of this investigation, in conjunction with other studies, can be stated that this study offers compelling proof of the effectiveness of the efficaciousness of cooperative learning in augmenting reading comprehension and total scholastic achievement. The cooperative learning technique is a thorough and successful teaching strategy since it enhances academic results while simultaneously fostering critical social and emotional skills. Cooperative learning prepares students for future problems in life as well as academic achievement by encouraging active involvement, teamwork, and mutual support. The cooperative learning approach is a comprehensive and effective teaching method since it fosters important social and emotional skills in addition to improving academic performance. By promoting activeparticipation, teamwork, and mutual support, cooperative learning helps students not only achieve academic success but also prepares them for life's challenges in the future.

In light of the discussion and conclusion, students can use cooperative learning strategies to increase their vocabulary and foster a positive learning environment. In order to support instructors in helping students adopt cooperative learning strategies, head teachers are urged to provide resources and audio-visual aids in the classroom. When cooperative learning strategies are used in the classroom, students are encouraged to work in groups to improve their vocabulary and English reading comprehension. Cooperative learning practices can help high school students become more adept in a variety of disciplines. Cooperative learning techniques can help students expand their vocabulary and create a supportive learning atmosphere.

Headteachers are asked to give materials and audio-visual tools in the classroom to enable instructors to assist students in adopting cooperative learning practices. When teachers implement cooperative learning practices in the classroom, they encourage students to work in groups to increase their vocabulary and comprehension of English literature. High school students who participate in cooperative learning activities can improve their skills across a range of subject areas. The study's findings and conclusions demonstrate that cooperative learning has a number of impacts and benefits for raising students' reading proficiency. As students actively take part in focus group discussions, projects in collaboration, and conversations, it increases their motivation and

engagement while also lowering their anxiety and making learning more enjoyable and pleasurable. In this way, students gain more confidence to talk to others in professional or academic settings. Students may help one another in this collaborative setting, which promotes a sense of belonging and shared responsibility. By exposing students to a variety of viewpoints and interpretations, this approach also enhances reading comprehension by helping them comprehend texts on a deeper level. Additionally, because cooperative learning requires students to listen to others and explain their thoughts, it helps them develop critical social and communication skills. There are a few drawbacks, though. Group dynamics can occasionally impede development if there are disputes or if some students take the lead while others stay quiet. This method improves reading comprehension by exposing pupils to a range of perspectives and interpretations and assisting them in understanding texts at a deeper level.

Furthermore, cooperative learning fosters the development of critical social and communication skills in students by requiring them to listen to others and express their ideas. However, there are some disadvantages. Sometimes disagreements or the tendency for certain students to take the lead while others remain silent might inhibit development in the group. Additionally, a teacher's capacity to properly organize and oversee group projects has a significant impact on how well cooperative learning works. Some students may not benefit equally from competent mentoring and balanced group composition, which might result in unequal skill development. Even with these difficulties, when cooperative learning is used carefully, its advantages frequently exceed its disadvantages. A balanced group makeup and skilled mentoring may not help every student equally, which could lead to uneven skill development. When cooperative learning is used appropriately, its benefits often outweigh its drawbacks despite these challenges.

CHAPTER 5
CONCLUSION

The ultimate goal of the current study was to find out how the cooperative learning approach affected the English reading comprehension of middle school pupils. The study found that when students worked in a cooperative setting that improved their status, communication skills, problem-solving experiences, and self-confidence, they altered how they saw English. This means that according to the study, students' perceptions of English changed as they worked in a cooperative environment that enhanced their standing, communication abilities, problem-solving experiences, and self-confidence. According to the study's findings, students in the experimental group who learned English using a cooperative learning approach performed noticeably better than those in the control group who received instruction through a traditional and the most stereotypical lecture-delivering style. Instead of using the traditional teaching approach, cooperative learning strategies like think-pair-share and jigsaw are better at fostering interaction in the classroom. In simpler terms, cooperative learning techniques like thought-pair- and crossword are superior to the standard teaching method when it comes to promoting interaction in the classroom.

The current study found out rather investigated how students' abilities of reading and comprehension were developed as a result of cooperative learning strategies, namely the Jigsaw, which is a sort of a crossword puzzle, and Student Team Achievement Division (STAD) approaches. The results provide important light on the efficacy of these techniques and offer a complex picture of their benefits and drawbacks as experienced by the students, as well as the influence of individual variations on their effectiveness. This means the findings shed significant insight into the success of various methods and present a nuanced picture of their advantages and disadvantages as perceived by the students, as well as the impact of individual differences on that effectiveness and efficaciousness.

When teachers implement cooperative learning practices in the classroom, they encourage students to work in groups to increase understanding of comprehension of English literature. High school students who participate in cooperative learning activities can improve their skills across a range of subject areas. Students can foster a positive learning environment by using cooperative learning strategies. It is requested

that head teachers provide resources and audio-visual aids in the classroom so that teachers can help pupils embrace cooperative learning strategies. Teachers who use cooperative learning strategies in the classroom encourage their pupils to work in groups to improve their understanding of English- language literature. Engaging in cooperative learning activities can help high school students advance their knowledge in a variety of academic areas. The results and recommendations of the study show that cooperative learning improves students' reading proficiency in a variety of ways. Students become more motivated and engaged, experience less anxiety, and learn in a more gratifying and enjoyable way when they actively participate in focus groups, group projects, and conversations.

Students become more comfortable approaching others in social or professional contexts by doing this. In this cooperative environment, students can assist one another, encouraging a sense of shared responsibility and belonging. This method improves reading comprehension by exposing pupils to a range of perspectives and interpretations and assisting them in understanding texts at a deeper level.

Furthermore, cooperative learning fosters the development of critical social and communication skills in students by requiring them to listen to others and express their ideas. However, there are some disadvantages.

Sometimes disagreements or the tendency for certain students to take the lead while others remain silent might inhibit development in the group. By introducing students to a variety of viewpoints and interpretations, this approach enhances their reading comprehension by helping them comprehend texts more deeply. Furthermore, by forcing students to listen to others and share their opinions, cooperative learning promotes the development of critical social and communication skills in them. There are a few drawbacks, though. Disputes or the propensity of certain students to speak up while others stay quiet can occasionally impede group development.

5.1 Jigsaw and STAD Methods' and Techniques' Impact on the Skills of Reading and Comprehension

The results of the study showed that the Jigsaw and STAD approaches both benefit students' reading ability development. These cooperative learning strategies promoted active involvement and participation, which in turn promoted a deeper grasp of texts. The Jigsaw approach encouraged in-depth comprehension and memory of

material by breaking a text into manageable chunks and having each student become an "expert" on a certain piece. Likewise, the STAD approach, which prioritizes group projects and cooperative problem-solving, improved students' capacity for group interpretation and analysis of texts. These methods also helped students' spelling and vocabulary since they introduced them to new words on a regular basis and gave them the chance to debate and define terms in their groups. The study's findings demonstrated the mutually beneficial effects of the Jigsaw and STAD techniques on pupils' improvement of reading skills. These cooperative learning techniques encouraged participation and active engagement, which in turn encouraged a deeper understanding of the texts. By dividing a text into digestible portions and assigning each student to become an "expert" on a particular section, the Jigsaw method promoted in-depth study and memorization of the content. Similarly, students' ability to comprehend and analyze texts in groups has improved thanks to the STAD approach, which places a strong emphasis on group projects and cooperative problem- solving. Because these strategies exposed students to new words on a regular basis and allowed them to argue and clarify concepts in groups, they also improved the spelling and vocabulary of the pupils.

5.2 Benefits and Drawbacks of STAD and Jigsaw Techniques

Students noted a number of benefits from employing STAD and Jigsaw techniques to enhance their reading abilities. Because group collaboration made the learning process more dynamic and participatory, these strategies enhanced motivation and interest in reading. The peer support structure that cooperative learning offers, which lessens reading anxiety and boosts confidence, was well-liked by the students.

Furthermore, these approaches' collaborative character promoted critical social skills including leadership, cooperation, and communication. In other words, students listed several advantages of using Jigsaw and STAD strategies to improve their reading skills. These tactics improved motivation and reading interest because group participation made the learning process more dynamic and participatory. Students enjoyed cooperative learning's peer support system, which reduces reading anxiety and increases confidence. Additionally, the collaborative nature of these approaches fostered important social skills including cooperation, communication, and leadership.

Nevertheless, the pupils also pointed out several setbacks and drawbacks. Group dynamics and creating chemistry can be difficult at times; disputes and conflicts among

the group members may arise or certain students may dominate the conversation while others choose to take a backseat. This mismatch and differences may reduce the learning process's overall efficacy. Moreover, the effectiveness of cooperative learning was largely contingent upon the teacher's capacity to lead and organize group activities. The potential advantages might be lessened without the right direction, and some students could not participate completely in or gain from the collaborative process. The students also mentioned a number of shortcomings and difficulties. It can be challenging at times to establish group dynamics and chemistry; disagreements and conflicts may surface, or some students may want to take center stage in the talk while others choose to listen. The overall effectiveness of the learning process may be lowered by this mismatch and disparities. Furthermore, the teacher's ability to guide and plan group activities was a major factor in cooperative learning's efficacy. Without the proper guidance, the potential benefits can be diminished, and certain students might not be able to fully engage in or benefit from the collaborative process.

5.3 Effects of Student Variations Individually

The study also made clear how much individual student variations influence how well cooperative learning techniques work to improve students' reading skills. The study also demonstrated the extent to which individual student differences affect how successfully cooperative learning strategies enhance students' reading abilities. The degree to which the students adapted to and profited rather took great advantage of Jigsaw and STAD approaches depended heavily on their prior skills of reading and preferred ways of learning. Pupils who showed a preference for social and interactive learning situations fared well in cooperative settings, demonstrating notable enhancements in their engagement and understanding of reading. On the other hand, people who preferred independent study or had less past experience with group projects occasionally found it difficult to adapt, which might have limited their advancement. It meant that students who expressed a desire for social and participatory learning environments performed very well in cooperative learning environments, exhibiting significant improvements in their reading comprehension and engagement. However, those who valued independent study or had less prior group project experience occasionally found it challenging to adjust, which may have impeded their progress.

Furthermore, students who read more proficiently at first frequently assumed leadership positions in groups, which might have a favorable or negative effect on group

dynamics. Their knowledge supported peers and helped to steer conversations, but it also occasionally resulted in unequal participation. It was essential for educators to be aware of these variations and to have plans in place that guaranteed every student had an equal chance to participate in and gain from cooperative learning. in simpler terms, it can be stated that the students who initially read more proficiently often took on leadership and prominent roles in groups, which could have a positive or negative impact on the group dynamics. Although their expertise aided peers and guided discussions, it occasionally led to unequal involvement. It was imperative that teachers were aware of these differences and that they had plans in place to ensure that every student had an equal opportunity to engage in cooperative learning and benefit from it. While their knowledge benefited colleagues and steered conversations, it sometimes resulted in uneven participation. It was crucial that educators were aware of these variations and had plans in place to guarantee that each student received an equal chance to participate in cooperative learning and reap its benefits.

Thus to conclude it can be stated that Jigsaw and STAD cooperative and collaborative learning strategies most importantly, significantly and favorably affect the reading abilities of the pupils and peers by encouraging active participation, improving their comprehension abilities, and cultivating critical social skills. These approaches have many benefits, such as improved peer support and motivation, but they also have drawbacks in terms of group dynamics and the requirement for skilled instructor facilitation. The unique characteristics of each student, including their learning styles and background reading skills, also affect how effective these tactics are. In order to ensure that every student may effectively enhance their reading abilities, educators must carefully plan and oversee cooperative learning activities in order to maximize their advantages and handle any potential negatives. These methods have numerous advantages, such as increased motivation and peer support, but they also have disadvantages in terms of group dynamics and the need for expert instructor facilitation. The efficiency of these strategies is also influenced by the individual qualities of each learner, such as their learning preferences and prior reading abilities. Teachers must carefully develop and supervise cooperative learning activities to maximize their benefits and manage any potential drawbacks so that every student can effectively improve their reading ability.

5.4 Recommendations for more research are offered in light of the preceding findings

1. The results of this study showed that cooperative learning significantly improved students' English reading comprehension. Consequently, it is advised that to improve their students' English reading comprehension, teachers might implement cooperative learning strategies in the classroom. Simplifying further, it can be said that the findings of the mentioned study or research project demonstrated that students' English reading comprehension was considerably enhanced via cooperative learning. As a result, it is suggested that teachers use cooperative learning techniques in the classroom to help their students' comprehension of English reading.
2. There were just two tactics included in this study (think pair sharing and jigsaw). Future research, however, can examine the impact of alternative cooperative learning strategies on students' learning at the primary, secondary, and tertiary levels. This means that the related study only looked at two strategies (think pair sharing and jigsaw). On the other hand, future studies can look into how different cooperative learning approaches affect elementary, secondary, and postsecondary students' learning.
3. The cooperative learning approach was applied in this study exclusively for the English reading comprehension topic. It is advised that the cooperative learning approach be used with different primary and secondary course subjects as well as with different learner types, including special education and slow learners. As a result of simplification it can be mentioned that in this study, the cooperative learning strategy was only used for the English reading comprehension topic. It is recommended that various primary and secondary school disciplines be taught using the cooperative learning technique, along with various learner types such as special education and slow learners.
4. Only school girls made up the sample for this investigation. To generalize the results on the impact of cooperative learning on students' English reading comprehension, it is advised that similar research be conducted on schoolboys. This means that it is suggested that comparable studies be carried out on schoolboys in order to generalize the findings about the influence of cooperative learning on pupils' English reading comprehension.

By interacting and collaborating with each other, students develop a sense of community. This aids in motivating the students to utilize the best of their abilities in order to help each other in achieving certain goals. Thus, cooperating learning strategies prove helpful in honing the social skills of the students. Through mutual engagement and teamwork, students cultivate a feeling of belonging. This helps to inspire the kids to use all of their skills to support one another in reaching their objectives. As a result, cooperative learning techniques are beneficial for improving students' social skills.

Through Jigsaw and STAD strategies and techniques, the affective filter- which hinders the learning process, is greatly reduced- leading to a more efficient and efficacious learning process. The efficacy of cooperating learning methods is evidenced by the findings in this study

REFERENCES

Aarts, B. (2024). *English syntax and argumentation*. Bloomsbury Publishing.

Abedi, J., Leon, S., Kao, J., Bayley, R., Ewers, N., Herman, J., & Mundhenk, K. (2011). Accessible Reading Assessments for Students with Disabilities: The Role of Cognitive, Grammatical, Lexical, and Textual/Visual Features. CRESST Report 785. *National Center for Research on Evaluation, Standards, and Student Testing (CRESST)*.

Apsari, Y. (2016). Cloze Passage In Improving Studentsâ€™ reading Comprehension.

Apsari, Y., & Yana, Y. (2015). Teachersâ€™ techniques And Problems In Teaching Reading. *Jurnal Ilmiah P2M STKIP Siliwangi*, *2*(2), 217-233.

Balfakih, N. M. (2003). The effectiveness of student team-achievement division (STAD) for teaching high school chemistry in the United Arab Emirates. *International journal of science education*, *25*(5), 605-624.

Bolukbas, F., Keskin, F., & Polat, M. (2011). The Effectiveness of Cooperative Learning on the Reading Comprehension Skills in Turkish as a Foreign Language. *TurkishOnline Journal of Educational Technology-TOJET*, *10*(4), 330-335.

Burns, A. (1999). *Collaborative action research for English language teachers*.

Burns, A. (2009). *Doing action research in English language teaching: A guide for practitioners*. Routledge.

Cambridge University Press.

Carrell, P. L., Devine, J., & Eskey, D. E. (Eds.). (1988). *Interactive approaches to secondlanguage reading*. Cambridge University Press.

Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, andmixed methods approaches*. Sage publications.

DeVries, D. L. (1976). Student Teams Can Improve Basic Skills: TGT Applied to Reading.

Edmonds, M., & Vaughn, S. (2006). Reading Comprehension for Older Reader.

Eltin Journal: Journal of English Language Teaching in Indonesia, *4*(2), 53-62.

Farooq, S. U., & Shah, I. (2010). Comparative study about English socio-economics factors of Pakistani universities students. *Business Review*, *5*(2), 159-166.

Fuchs, L. S., Fuchs, D., Hosp, M. K., & Jenkins, J. R. (2001). Oral reading fluency as an indicator of reading competence: A theoretical, empirical, and historical analysis. In *The role of fluency in reading competence, assessment, and instruction* (pp. 239-256). Routledge.

Gündoğdu, K., Ozan, C., & Taşgın, A. (2013). The effect of the jigsaw technique implementation on prospective teachers' academic achievements. *Psycho- Educational Research Reviews*, *2*(3), 60-72.

Guthrie, J. T. (2008). Reading motivation and engagement in middle and high school: Appraisal and intervention.

Haryudin, A., & Argawati, N. O. (2018). Lesson study to improve student English grammar mastery using jigsaw technique to the third semester students of IKIP Siliwangi. *Indonesian EFL Journal*, *4*(1), 49-56.

Intervention in School and Clinic, *41*(3), 131-137.

Johnson, D. W., Johnson, R. T., & Stanne, M. B. (2000). Cooperative learning methods: A meta-analysis.

Johnson, D. W., Johnson, R. T., & Stanne, M. B. (2000). Cooperative learning methods: A meta-analysis.

Katemba, C. V., & Samuel, S. (2017). Improving Student's Reading Comprehension Ability Using Jigsaw 1 Technique. *Acuity: Journal of English Language Pedagogy, Literature and Culture*, *2*(2), 82-102.

Katemba, C. V., & Samuel, S. (2017). Improving Student's Reading Comprehension Ability Using Jigsaw 1 Technique. *Acuity: Journal of English Language Pedagogy, Literature and Culture*, *2*(2), 82-102.

Mandal, R. (2009). Cooperative Learning Strategies to Enhance Writing Skill: The Modern Journal of Applied Linguistics (online). *Tersedia di http://mjal. org/Journal/Coop. pdf,[diakses 11 Januari 2014]*

Mandal, R. R. (2009). Cooperative learning strategies to enhance writing skill. *The modern Journal of applied Linguistics*, *1*(2), 95-102.

Mauludi, Y. M. (2011). The Effectiveness of Jigsaw Technique To Improve Students' Reading Ability In Narrative Text. *Walisongo State Institute for Islamic Studies, Semarang*.

Mengduo, Q., & Xiaoling, J. (2010). Jigsaw Strategy as a Cooperative Learning Technique: Focusing on the Language Learners. *Chinese Journal of Applied Linguistics (Foreign Language Teaching & Research Press)*, *33*(4).

Novianto, B. (2012). *Improving Reading Comprehension Skills By Using Jigsaw Technique At The Second Year Of Sman 1 Kalasan Yogyakarta In The Academic*

Parmawati, A. (2018). The Study Correlation Between Reading Habit And Pronunciation Ability At The Second Grade Students Of Ikip Siliwangi. *Eltin Journal: Journal of English Language Teaching in Indonesia*, *6*(1), 46-52.

Parmawati, A., & Yugafiati, R. (2017). Using Authentic Material To Improve Studentsâ€™ reading Interest (A Classroom Action Research In The Second Semester Students Of Stkip Siliwangi Bandung). *Eltin Journal: Journal of EnglishLanguage Teaching in Indonesia*, *5*(1), 1-8.

Pramita, R. A., Rochsantiningsih, D., & Setyaningsih, E. Improving Reading Skill ThroughCooperative Learning Method: Student Teams-Achievement Divisions (STAD) and Team Games Tournament (TGT). *English Education*, *5*(1), 74-81.

SCHOOLIN PURWAKARTA. *Eltin journal: Journal of English Language Teaching in Indonesia*, *5*(2), 57-70.

Serravallo, J., & Calkins, L. (2010). *Teaching Reading in Small Groups Differentiated Instruction for Building Strategic, Independent Readers*.

Shah, I., Farooq, S. U., Shah, T., & Shams, M. S. (2010). A comparative study of English reading skills and socio–economic factors of Pakistani universities students. *International Research Journal of Finance and Economics*, *47*(1), 108-113.

Slavin, R. E. (1995). Cooperative Learning Theory Research and Practise. *Boston: Allyand and Bacon Publishers*, *419*.

Slavin, R. E. (2013). Cooperative learning and student achievement. *School and classroom organization*, 129-156.

Stevens, R. J. (2003). Student team reading and writing: A cooperative learning approach to middle school literacy instruction. *Educational Research and Evaluation*, *9*(2), 137-160.

Suhana, A., & Haryudin, A. (2017). THE EFFECTS OF READING HABIT TOWARDS STUDENTSâ€™ READING COMPREHENSION AT PRIVATE SENIOR HIGH

Suprijono, A. (2009). *Cooperative learning: teori & aplikasi PAIKEM*. Pustaka pelajar.

Suroto, M. (2017, May). The effectiveness of Jigsaw II model in improving students' understanding of citizenship education. In *5th SEA-DR (South East Asia Development Research) International Conference 2017 (SEADRIC 2017)* (pp. 241-244). Atlantis Press.

Syahrir, S. (2011). Effects of the Jigsaw and Teams Game Tournament (TGT) Cooperative Learning on the learning motivation and mathematical skills of Junior High School students. In *Proceedings of the International Seminar and the Fourth National Conference on Mathematics Education* (pp. 155-168).

Thomas, B. J. (2012). Teaching English Language Learners Worldwide. *Theory & Praticical Guide. New York. bukukita. com Gramedia*.

Varaprasad, C. (2006). Reading strategies: Caught or taught. *Reflections on English Language Teaching*, *5*(2), 63-86.

Wichadee, S. (2005). The effects of cooperative learning on English reading skills and attitudes of the first-year students at Bangkok University. *BU academic Review*, *4*(2), 22-31.

Wyk, M. M. V. (2011). The effects of Teams-Games-Tournaments on achievement, retention, and attitudes of economics education students. *Journal of Social Sciences*, *26*(3), 183-193.

Wyk, M. M. V. (2012). The effects of the STAD-cooperative learning method on student achievement, attitude and motivation in economics education. *Journal ofSocial Sciences*, *33*(2), 261-270.

Year Of 2011/2012 (Doctoral dissertation, Thesis. English Language Education Department Faculty Of Arts And Languages Yogyakarta State University).

Yeung, H. C. H. (2015). Literature review of the cooperative learning strategy-student team achievement division (STAD). *International Journal of Education*, *7*(1), 29-4

Yinger, R. J. (1987). Learning the language of practice. *Curriculum Inquiry*, *17*(3), 293-318.