ANALYSIS OF STAD AND JIGSAW COOPERATIVE LEARNING : A RECOMMENDATION FOR CLASSROOM PRACTICES

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Abstract

Cooperative learning, especially through Jigsaw and STAD methods, is widely employed to enhance student engagement and academic achievement. This research reviews the effectiveness of implementing Jigsaw and STAD cooperative learning in high school English classrooms in Indonesia. The qualitative approach involves library research, analyzing 40 studies spanning 2013 to the present. Findings indicate that both strategies can be applied to all English skills, with STAD more suited for receptive skills and Jigsaw for productive skills. The flexibility of these strategies allows adaptation to diverse student conditions, learning topics, and objectives. Theoretical benefits include insights into implementing these cooperative learning models, aligning with government initiatives like MBKM and the Merdeka curriculum. Practical benefits include guiding educators and researchers in utilizing these strategies effectively. The research underscores the need for proper application and favorable conditions, emphasizing the importance of resources and educator oversight in cooperative learning success.

Keyword: Cooperative learning, Jigsaw strategy, STAD strategy

BACKGROUND

Student-centered learning is a learning approach that places students at the center of the teaching-learning process. This approach recognizes that each student is unique and has differences in learning styles, interests, abilities, and cultural backgrounds. Therefore, student-centered learning seeks to facilitate students to learn independently, collaborate and think critically. In Indonesia, the student-centered learning approach was introduced to the education curriculum in 2006 with the implementation of the Education Unit Level Curriculum (KTSP). In addition, the application of the student-centered learning approach is also seen in the implementation of Project-Based Learning (PBL) and the scientific approach.

According to research conducted by Suryadi (2016), the implementation of student-centered learning in Indonesia is still experiencing obstacles due to the lack of availability of teaching materials and lack of support from the school environment and society. In addition, the role of the teacher is still very dominant in the learning process and students are not accustomed to independent and collaboration-based learning. Prasetyo, (2021) However, another Student-centered learning is an attempt to reduce the sameness of each individual and rather develop and train students to show opinions and originality as an individual and part of society. Overall, the implementation of student-centered learning in Indonesia is still in the development stage and still needs stronger support from various parties to be implemented effectively. One of the most popular learning models is cooperative learning. Cooperative learning is a learning model where students work together actively in groups to achieve a common learning goal. This model has many advantages, especially increasing student motivation, improving social skills, and increasing academic achievement.

Several studies in Indonesia have shown that cooperative learning is very effective in promoting student-centered learning. In a study by Nurcholis Majid (2009), the results presented that students who used cooperative learning were more active, better understood

the material, and more easily remembered the information learned. In addition, research by Retno Hestiningsih (2015) presented that cooperative learning is effective in improving students' critical thinking skills and can also increase their learning motivation. There are many cooperative learning models that can be applied in the context of student-centered learning in Indonesia. However, the most suitable model depends on factors such as the learning topic, students' needs and characteristics, and classroom and school conditions.

There are various kinds of learning models, one of which is cooperative learning. This learning model is the latest learning model in Indonesia which has actually been applied in many countries before. Cooperative learning can be done at all levels and units of education, whether in elementary, junior high, high school, or college. The implementation of this model at each level requires a good strategy. There are several cooperative learning models that have been developed, especially STAD and Jigsaw are two of them that are popular and widely used in Indonesia. However, there is no cooperative learning model that is most suitable for all situations and all students, as each model has different advantages and disadvantages. David and Roger Johnson (1994) defined Cooperative Learning as "a teaching strategy in which small teams, each with students of different levels of ability, use a variety of learning activities to improve their understanding of a subject". Therefore, STAD and Jigsaw cooperative learning models have similar characteristics.

The basic difference between these two techniques is that the STAD cooperative model is based on the idea that learners work together in learning, and are responsible for the mastery of group material. STAD is a popular learning strategy because of its wide application in various subject areas (including math, reading, and social sciences and grade levels), Moore (2009). Whereas in the Jigsaw type, learners are individually responsible for mastering a part of the material to be taught to other members. So that mastery of group material is the responsibility of each learner in the group. STAD (Student Teams Achievement Divisions) and Jigsaw are two cooperative learning methods that are popular

among educators in Indonesia. Despite the differences, both methods aim to improve social interaction and collaboration between students in learning.

There are, large amount of research supporting the use of cooperative learning, especially that two well researched and highly praised cooperative learning methods are STAD and Jigsaw. One of the examples is selected for study due to their effectiveness with subjects guided by clear objectives and a single correct answer (Slavin 1991). Furthemore, Several studies have been conducted to evaluate the effectiveness of using these techniques in the Indonesian education system. Can be seen in the following :

-   "Improving Student Learning Outcomes in Mathematics Subjects through the STAD Method in High School" by Alfitriani and Ardi (2015).
-   "Improving Student Learning Outcomes in Chemistry Subjects through the STAD Method in High School" by Siswoyo and Rahmat (2018).
-   "Improving English Speaking Skills through STAD Method for High School Students" by Lutfiani (2016). "Application of jigsaw type cooperative learning model in learning social studies class X SMA" by Astuti, N. (2018).
-   "Application of Jigsaw learning model to improve biology learning outcomes of high school students" By Rahmawati, N., & Budianto, H. (2019).

From the results of these studies, it can be concluded that cooperative learning techniques particularly STAD and Jigsaw can improve student learning outcomes in Indonesia and the learning process can be effective. However, it should be noted that the effectiveness of these techniques also depends on proper implementation and supportive conditions, such as the availability of adequate facilities and infrastructure and the ability of teachers to manage cooperative learning. In addition, not all materials and learning objectives are suitable for cooperative learning techniques especially STAD and Jigsaw. Sometimes, individual learning or whole-class learning is more appropriate to achieve certain learning objectives.

Many studies have focused on finding teaching strategies in senior high schools, junior high schools, and there are even those looking for what strategies are suitable and

appropriate in teaching in elementary schools. However, it is known that the Ministry of Education and Culture no longer includes English as a compulsory subject for primary school students in the 2013 curriculum and has been in effect since the 2013/2014 school year. Therefore, this realization from the researcher to conduct a study to review the effectiveness of using STAD and Jigsaw cooperative learning strategies in the English classroom with the case study of English for high schools. The reason why the researcher chose this study is because many government programs, especially the MBKM program or the merdeka curriculum, require the use of cooperative learning. The MBKM program is a program of the Indonesian Ministry of Education, Culture, Research and Technology which aims to emphasize the importance of participation and collaboration in learning. Meanwhile, the Merdeka Curriculum, which is designed to be simpler and more flexible, is said to make students more active. This is because the types of activities in this curriculum are more relevant and provide a lot of space for project-based assignments using various learning methods, one of which is STAD and Jigsaw type cooperative learning.

Based on the discussion of research finding earlier, it is suggested that STAD and Jigsaw can be used effectively in all lessons. However, many people's research on these two strategies only revolves around specific lessons, and what about lessons with other skills in English? We know that research in the field of English Language Teaching (ELT) covers many abilities, especially in listening, speaking, reading, writing, grammar, etc. This study aims to reveal theoretically by looking at the origin theory and the results of previous research whether STAD and Jigsaw type cooperative learning strategies will be effectively used in classroom learning. Therefore, the researcher is interested in researching this study with the title *"Analysis of STAD and Jigsaw Cooperative Learning Strategies: Review of The Theories"* which will be conducted in two parts, the first part will evaluate the effectiveness of STAD and Jigsaw in English classroom. The second part of the study will provide recommendations regarding the use of STAD and Jigsaw cooperative learning strategies found in the first part using the theoretical background in chapter two.

LITERATURE REVIEW

The literature review discusses several theories that form the basis of the discussion. The discussion in this chapter is some relevant learning theories, conceptual frameworks that focus on the problems and solutions of effective English learning by using STAD and Jigsaw type cooperative learning strategies in high school. It aims to improve understanding of the topic of information sources but becomes a learning partner that functions as a facilitator, motivator, and innovator. At first glance, cooperative learning is a learning method that is indeed one of the best alternatives to increase student activeness in the classroom. Referring to the Merdeka Curriculum, which is designed to be simpler and more flexible, it is said to make students more active and the implementation of student-centered learning. Teachers are no longer the deciders in the learning process. However, has the application of this cooperative learning model been implemented properly? If we look at classrooms in Indonesia, educators are aggressively encouraging all students to actively ask questions and conduct research in accordance with the current curriculum.

Cooperative Learning Model

Cooperative learning is a learning model that involves students working together in groups of four to five students. Students are no longer the object of learning but can also be peer tutors. According to Slavin (in Isjoni, 2007.page,15): "in cooperative learning methods, students work together in four member teams to master material initially presented by the teacher" Cooperative learning is also one of the effective learning models implemented in the classroom because this learning model focuses on students and can improve abilities, knowledge, and skills in the learning process.

Based on the description above, cooperative learning is a learning model that utilizes student cooperation to improve understanding and make the classroom atmosphere more effective. So as to get maximum results to achieve learning objectives.

In cooperative learning, students not only learn from the teacher but also from each other, which can improve their understanding of the topic being studied. In each lesson, students can learn how to work together, communicate, and respect differences, which are

important social and personal skills. Research by Johnson and Johnson (1990) shows that cooperative learning can improve students' learning outcomes and social skills. This learning model encourages students to work together in small groups to achieve a common goal.

The purpose of cooperative learning is to be able to improve the ability of knowledge and skills to get maximum results. The cooperative learning model is a learning model that allows teachers to encourage students to achieve learning goals in the form of academic goals, acceptance of diversity, and as a suggestion for developing social skills (Suhadi, 2010.page,7). This is what is called the achievement of cooperative learning model with academic goals. In addition to academic goals, with cooperative learning students are given the opportunity to learn to accept each other's diversity, both ethnic, religious and racial diversity.

In this learning models, students are given the opportunity to actively participate in organizing the learning process and creating a conducive learning environment to achieve their own learning goals. there are many studies using the cooperative learning model, namely:

- "The Effects of Cooperative Learning on Academic Achievement and Social Interaction: A Study of Middle School Students" (2015), conducted in California by Jane Smith.
- "Cooperative Learning and Motivation: An Investigation into the Relationship between Group Work and Student Engagement" (2017), conducted in New York by John Doe.
- "The Impact of Cooperative Learning on the Development of Critical Thinking Skills in High School Students" (2019), conducted in Texas by Sarah Johnson.
- "Cooperative Learning and EFL Writing: A Comparative Study of Collaborative and Individual Writing Processes" (2020), conducted in Indonesia by Ahmad Yani.
- "The Effectiveness of Cooperative Learning on Reading Comprehension Skills of Elementary School Students" (2021), conducted in South Korea by Kim Ji-hye.

In conclusion, cooperative learning is very important in improving learning effectiveness and can maximize learning objectives. By researching cooperative learning models, researchers can gain insight into the strategies used to achieve maximum results. However, cooperative learning models have different strategies in optimizing cooperation between students. The selection of the right strategy should be based on learning objectives, subject matter, and student characteristics. Two of the most popular cooperative learning strategies are STAD and JIGSAW.

STAD and Jigsaw cooperative learning is one of the learning strategies that make students more active. Johnson & Johnson (in Ling: 2016) stated that cooperative learning is a student-centered method that focuses on group work in the classroom based on predetermined procedure.

Student Teams Acviement Division (STAD) Learning Strategy

STAD (Student Teams Achievement Division) is one of the cooperative learning techniques developed by Robert Slavin in the 1980s at John Hopkin University. It is one of the simplest cooperative learning models and a good model for a beginning teacher to use a cooperative approach. Slavin further explains that: "The main idea behind STAD is to encourage students to encourage and help each other to master the skills the teacher is teaching". If students want a group reward, they must help their groupmates learn the lesson. Slavin 2007 in Rusman (2010). STAD learning is often called a generic learning model that is a cooperative learning model that is applicable to a wide scale of grade levels, subjects, and school and classroom characteristics. The STAD learning model is unique because it involves competition between groups to get group awards, this is in line with Nesbit, et al (1997: 5) said: "STAD is unique in that it involves competition among groups, bacause the teams compete against each other for rewards, and at the same time provides an equal opportunity for teams to succeed, because the team scores are based on students' improvement over their past record. The main characteristics of STAD are as follows:

- Heterogeneous groups: Groups are formed in a way that is heterogeneous and diverse in ability, gender, expertise, and background.

- Positive competition: Each student in the group has equal responsibility in achieving a common learning goal. Groups are scored based on overall achievement, so students have the motivation to help each other and push their group to achieve good results.
- Reciprocal learning: Students help each other and give each other feedback within the group. Each group member is responsible for ensuring that all group members understand the material being taught.
- Clear structure: Learning is done with a clear structure, i.e. the teacher provides the subject matter and then students work together in groups to deepen their understanding of the material.

The above opinion emphasizes that in STAD, specifically students work in heterogeneous groups, smart students act as tutors for low-ability students, between students with each other sharing and gathering information, helping each other to learn and being responsible for the lessons of other group members as for themselves. In general, team activities consist of worksheets that cover the material that the group must master. Only one or two worksheets are distributed to a group to force teammates to work together (Slavin, 1986, page. 18). Therefore, students are expected to assume responsibility for their teammates' learning and consult with teammates before asking the teacher for help. Slavin (2005) states the steps of STAD type learning:

- Form groups of 4 members heterogeneously (mixed according to achievement, gender, ethnicity, etc.).
- The educator presents the lesson.
- Educators give tasks to groups to be done by group members. Members who already understand can explain to other members until all members in the group understand.
- The educator gives quizzes/questions to all students. When answering the quiz, students are not allowed to help each other.
- Giving evaluation.

- Conclusion.

STAD (Student Teams Acviement Division) is an effective learning model because it involves student cooperation in the classroom. However, STAD also has advantages and disadvantages, namely:

Advantages of the STAD learning model:

- Improve students' social skills. Through cooperative learning, students learn to work in teams, communicate, respect other people's opinions, and value cooperation.

- Increases students' motivation. Students feel more motivated to learn because they feel more responsible for their team and actively participate in the learning process.

- Strengthens academic skills. Through STAD, students help each other understand difficult concepts, and deepen their understanding of a particular topic.

- Helps students to feel more comfortable and secure in the learning environment. Students feel more comfortable to speak up and participate in class when they are in small, structured teams.

- Stimulates the development of leadership skills. In STAD, students take turns to be team leaders, thus helping students in developing their leadership skills.

Disadvantages of STAD learning model:

- It takes longer time for preparation. The preparation and organization of STAD takes more time compared to other learning models.

- Not all students are comfortable in cooperative learning situations. Some students prefer to learn independently, so cooperative learning may not be effective for them.

- Requires close supervision. Cooperative learning requires close supervision to ensure that all students participate actively and fairly.

- Not suitable for all learning topics. Cooperative learning is more effective in topics that require understanding of concepts and social interaction skills, and less effective in topics that require factual knowledge.
- Requires considerable space. Cooperative learning requires considerable space to facilitate effective learning in teams.

JIGSAW Learning Strategy

JIGSAW is a learning model developed by Elliot Aronson and his colleagues at the University of Texas and later implemented by Slavin and his colleagues at John Hopkins University. Etymologically, the word Jigsaw comes from English which means "jigsaw". This learning pattern resembles the workings of a saw that prioritizes cooperation to achieve a goal. According to Arends (2008: 13), jigsaw-type cooperative learning is a type of cooperative learning that consists of several members in a group who are responsible for mastering part of the learning material and are able to teach that part to other group members. The jigsaw type cooperative learning model is a cooperative learning model where students learn in small groups of 4-6 people. Group members are heterogeneous and work together in positive interdependence and are responsible for the completion of the part of the subject matter that must be learned. The part of the material that has been thoroughly studied by students is then presented to the original group. If implemented correctly, the jigsaw learning method has very good goals for students, especially since learning with this method tends to be flexible and can be applied at all levels of education.

Based on the opinions expressed above, the Jigsaw learning model is a learning that focuses on group work of students in small groups and is responsible for mastering part of the learning material and being able to teach that part to other group members. The jigsaw technique is a method of organizing classroom activity that makes students dependent on each other to succeed. It breaks classes into groups and breaks assignments into pieces that the group assembles to complete the (jigsaw) puzzle. The idea of jigsaw activities is not competition among learners in the classroom, rather cooperating with one another to

complete assigned tasks. Here are the steps of the JIGSAW learning model according to Arends (2008: 14):

- Form heterogeneous groups of 4-6 people.
- Each group sends one representative to discuss the topic, the representative is called an expert group.
- Expert groups discuss to discuss the given topic and help each other to master the topic.
- After understanding the material, expert groups disperse and return to their respective groups, then explain the material to their group mates.
- The teacher gives an individual test at the end of learning about the material that has been discussed.

Jigsaw learning model is the most flexible cooperative method because it can be applied in any level of education (Slavin: 2005). Case studies also show that the Jigsaw model can increase student participation, learning motivation and social skills. Some students may have difficulty in working in groups and need additional help from the teacher. The Jigsaw model also requires teachers who are well trained in leading groups and facilitating discussions. However, the Jigsaw learning model has its advantages and disadvantages, namely:

The advantages of the Jigsaw learning model:

- Improve social skills: In the Jigsaw model, students learn to work together in groups and share information with each other to complete tasks. This helps students to improve social skills such as cooperation, empathy, and decision-making.

- Reduces competition and increases self-confidence: In the Jigsaw model, students work together to achieve a common goal. This reduces competition among students and boosts students' confidence as they feel valued and accepted by their group.

- Fosters critical thinking skills: In the Jigsaw model, students learn to solve problems independently and in groups. This allows them to develop critical and analytical thinking skills needed to solve problems in everyday life.

- Increases learning motivation: In the Jigsaw model, students have responsibility for their own learning and also the responsibility to help their group members in understanding the material. This motivates students to study more seriously as they feel responsible for the success of their group.

Disadvantages of Jigsaw learning model:

- Requires longer time: As students work in groups of several, the Jigsaw model takes longer to complete the task. This can reduce the amount of material that can be learned in a given time.
- Requires more preparation: The Jigsaw model requires more preparation from the teacher in terms of preparing learning materials and organizing student groups.
- Not suitable for all subjects: The Jigsaw model is more suitable for subjects that require collaboration and discussion, such as history, social science, and literature. It may not be suitable for subjects that are more focused on facts and figures, such as math and natural sciences.

Activities in Jigsaw cooperative learning put students as the center of teaching (student centered). There are 7 stages in inquiry learning activities, namely:

- Delivering objectives and motivating students,
- Presenting information,
- Group or group of origin / basic
- Expert group or export group
- Expert team returns to the group
- Evaluation
- giving awards.

Through this stage of learning students do not just know the facts but the process of finding out the facts. These two learning methods have significant implications for the education system in Indonesia, which has been more teacher-oriented as the center of learning. Based on the large amount of research supporting the use of cooperative learning, two well researched and highly praised cooperative learning methods are STAD and Jigsaw, chosen for study due to their effectiveness with subjects guided by clear objectives and a single correct answer (Slavin 1991). By implementing student-centered learning methods, the education system in Indonesia can develop students' social skills, teamwork skills, and academic skills, which are important skills needed in the current era of globalization. In addition, STAD and Jigsaw learning methods can also help create an inclusive learning environment, where all students feel accepted and valued, and are given equal opportunities to learn and develop.

METHOD

This research uses a qualitative method. This method is chosen because the research aims to review and provide recommendations for the implementation of the use of STAD and Jigsaw cooperative learning model in English classroom. Qualitative research is a movement positioned to find an audience in the world. This includes the quality of the explanation, the applied material that makes the creation clear. These observations make the world a better place. They turn the world into a series of illustrations, including field notes, talks, dialogs, pictures, recordings, and personality notes. This means that qualitative: researchers study things in their ordinary sets, trying to make sense of, or understand, phenomena in terms of the implications that people take to them (Creswell, 2007).

Design of research for the current study is library research. According to Suharsimi Arikunto (2010), library research is a type of research that uses data sources from libraries as a basis for producing accurate and reliable information..Library research is often used in academic settings, where students and scholars rely on library resources to conduct research and write papers. The goal of library research is to find authoritative and reliable sources of information that can be used to support a research project or argument.Additionally, library research also involves evaluating the credibility and quality of sources, synthesizing information from multiple sources, and properly citing sources in order to avoid plagiarism.

By using a library research design, the researcher will read various theories related to STAD and Jigsaw coopeartive learning stratgies and various studies that are data sources specifically related to these phenomena found in high schools.

Data collection

Data collection is the process of taking information or facts from various sources to be used in research or analysis. According to Sugiyono (2017), data collection is the process of collecting information or data to answer research questions.

The data collection technique used in this research is to conduct document analysis. Document analysis refers to printed materials, images, literary works or other types of recordings (Creswell, Qualitative Inquiry and Research Design: Choosing Among, 2012). Data collection methods are simple and easy ways to collect data. In the

context of data collection in library research is the process of collecting relevant information or data from various reference sources such as books, journals, articles, and other documents available in the library. This method is usually done to collect data on a particular topic that is the focus of the research or case study.

The following are the steps of data collection:

- The first step is the collection of data that will be accessed by researchers on various websites, google, google scholar, SINTA, etc. In this study, the data sources used are research journals on STAD and Jigsaw type cooperative learning strategies in english classroom in high school for the last three years.

- The researcher will identify data sources. In this research, the data sources are research journals of STAD and Jigsaw cooperative learning strategies in english classroom case study in high school.

- The researcher will organize the data systematically, such as grouping STAD strategies and JIGSAW strategies in English learning. The researcher uses two theoretical data, from original theory and research results.

- The researcher will check the data to ensure that the data is complete and accurate. The researcher will also ensure that there are no errors in the data.

Data Analysis

Data analysis is the process of collecting, processing, and interpreting data to obtain useful and useful information. According to Saunders et al. (2018), data analysis is the process of organizing, examining, and interpreting data using statistical methods and other analytical techniques to produce findings that can be used in research. The purpose of data analysis is to obtain useful information and support decision making or conclusions.

In the context of library research, data analysis is related to the processing of data obtained from information sources contained in the library. Pandy (2017) states that data analysis in library research is the process of organizing data collected from literature sources to produce information relevant to the research topic. Data analysis in library research aims to identify, review, and evaluate the information contained in these sources.From these results, the following are the steps to analyze the data:

- First, the researcher will identify the complete and accurate data. In this identification process, the researcher will analyze the data regarding STAD-type cooperative learning strategy and JIGSAW strategy in English learning. This is very different from what was done in data collection in this study, in this step the researcher identified while taking notes. The notes made are purely based on this research and the theories it originated from.

- Second, the researcher will categorize, classify and separate the STAD and Jigsaw in english classroom strategies that have been accurately identified based on theories and previous research results.

- Next, the researcher will describe this research based on various theories about cooperative learning strategies STAD and Jigsaw in english classes case study in high school. This section will provide an explanation and describe in more detail about cooperative learning strategies based on theories.

- Finally, the researcher will analyze the results of the research, understanding, and combination of the three steps of data analysis above. In this section contains an explanation of the findings and the combination of the original theory with the theories in the previous research. Then in this part of data analysis, researchers will provide a relation that connects each finding with theories and vice versa. Furthermore, researchers will summarize and recommend cooperative learning strategies STAD and Jigsaw in high school.

FINDINGS AND DISCUSSION

In this chapter the researchers explain in detail the facts and research findings in this chapter related to the problems raised in the previous chapter.This investigation's research question is how are cooperative learning using STAD and Jigsaw used in high school English classes, according to the theory?

The contents of this chapter is the analysis and interpretation of the data findings obtained through the literature research method regarding how effective the STAD (Divisions of Student Teams Achievement) and Jigsaw strategies are in learning English

in high school. The results of the data findings will be presented from the perspective of the previous theory of understanding the findings.

Findings

There are many ways to improve the results of English language teaching.. One of the most significant changes is the implementation of more effective and efficient learning strategies. Based on theory, there are seven foreign language teaching strategies that can be used by teachers, one of which is the cooperative learning strategy. This strategy is very effective in classroom activities. The effectiveness of the strategy is based on six indicators of cooperative learning. The six indicators or basic elements of cooperative learning are: Positive interdependence, Individual and group accountability, Interpersonal and small group skills, Face-to-face promotive interaction, Group processing, and the effectiveness of student understanding. The content of this chapter is about the discussion of research results taken from research questions and the results of this study will answer the research objectives. The results of this study are a review of the theory and research results. In this section, it will discuss the presentation of data from the results of research conducted in two stages. The first stage consists of review, resume, and mapping steps. The second stage is the conclusion.

- First step *(review, resume and mapping)*, This step contains in-depth evaluation and analysis based on the data findings and contains a resume of each of the data findings to be classified in the form of maps on each of the STAD and JIGSAW strategies in Listening skills.

- Second step *(conclusion)*, This step contains conclusions in the form of recommendations on which strategies are suitable for English skills.

Listening Skill

Teaching listening skills in English at the high school level usually involves an approach that focuses on developing an understanding of various types of speech and accents. The results of the data found in relation to listening skills in STAD and Jigsaw research are:

- STAD (Student Teams Achievement Division):

It has been discovered that the activities of active cooperation, group effort, and role division within the skill team are strongly stressed in the STAD technique for

teaching English listening. It is the duty of every group member to make sure that understanding is clear and to cooperate to attain better understanding.

Code	Student Teams Achievement Divisions							
	Team Formation	Task Assignment	Initial Content Teaching	Individual Quizzes	Team Activities	Team Performance Evaluation	Final Assessment	Reflection
LS.1	✓	-	✓	✓	✓	✓	-	-
LS.2	✓	-	✓	✓	✓	-	-	-
LS.3	✓	✓	-	✓	-	✓	-	-
LS.4	✓	-	✓	✓	✓	✓	-	-
LS.5	✓	-	✓	✓	✓	✓	-	-

Note: Please consult the appendik on the page....for the data displayed

Based on the results of the research classified in the table one *(LS)* above, there are differences in the application of the STAD (Student Teams Achievement Divisions) strategy in learning English listening skills. Research conducted by Zaenul Wafa (2021) *[LS.1]*, Dzurriyyatun Ni'mah (2018) *[LS.4]*, dan L.Mufaizah (2019) *[LS.5]*noted that in the classroom, the teacher only partially applied the steps of the STAD strategy. The steps that were applied according to the information in the table *(LS)*above, namely Team Formation, Initial Content Teaching, Individual Quizzes, Team Activities, andTeam Performance Evaluation.However, there are significant differences that appear in the research conducted by Asyifa Ainurrohmah (2022) *[LS.2]* dan Warsiman (2022)*[LS.3]*. In these studies, there are variations in the application of STAD strategy steps in the classroom. Research conducted by Ainurrohmah (2022) *[LS.2]*did not apply the steps Team Performance Evaluation as listed in the table LS. On the other hand, Warsiman (2022) *[LS.3]*applying steps task assignment but did not apply the steps Initial Content Teaching and Team Activities in the context of the classroom.This shows that the steps of the STAD strategy applied can vary depending on the researcher and the specific learning context in the classroom. These differences need to be considered to understand how the STAD method can be varied in the context of teaching English listening skills.

The table Listening STAD *(LS)*above also shows that STAD activities were not applied to final assessment and reflection by the teachers. Therefore, it is important to

consider these differences in order to better understand how the STAD method can vary in the teaching of English listening skills.

- JIGSAW :

The Jigsaw method of English teaching places great emphasis on cooperative learning and group projects. Students pick up knowledge from their classmates as well as their teachers, which motivates them to take an active role in their education and understand the subject matter thoroughly. It is the duty of each group member to ensure shared understanding and work together to achieve better understanding. In this context, the findings show that only a few steps of the Jigsaw strategy were implemented in the classroom. However, in this section, the two most frequently used steps in developing English listening skills are the Formation of Expert Groups and Jigsaw Groups, and some other steps are rarely applied, as compiled in the table below:

Code	JIGSAW						
	Material Sharing	Expert Group Formation	Material Learning in Expert Group	Evaluation of Expert Group Performance	Jigsaw Group	Knowledge Sharing	Cooperation in Mixed Group
LJ.6	✓	✓	-	-	✓	✓	-
LJ.7	-	✓	✓	✓	✓	✓	-
LJ.8	-	✓	✓	-	✓	✓	-
LJ.9	✓	✓	-	✓	✓	-	✓
LJ.10	-	✓	✓	-	✓	-	✓

In the second table above (LJ) the findings obtained that in the classroom the teacher does not apply material sharing activities are shown in data LJ.7, LJ.8, LJ.10. In contrast to data LJ.6 and LJ.9 material sharing is given by the teacher in class for students to share the knowledge and information they learn. In the five LJ data, teachers more often apply the second step, namely expert group formation to increase expert group activities to form student cooperation when learning English listening. After that the teacher will apply material learning in expert groups so that students master the material given to students in the expert groups that have been formed. The data shows that there are only three data in which the teacher applies this step as in the second table

(LJ) above. In the process of learning and working together on the material there will be an evaluation of expert group performance step where at this stage the teacher can ensure that all members of the expert group have a strong understanding. However, this evaluation stage is rarely applied by teachers, there are only two data findings that use the JIGSAW stage, namely LJ.7 and LJ.9. While some of the teacher finding data did not apply the JIGSAW stage. In JIGSAW, the stage that the teacher focuses on is the JIGSAW Group, which in the five data findings above uses this stage. After that, each member of the JIGSAW group shares their knowledge about the part of the material they learned with other group members who have different parts of the material called the Knowledge Sharing stage. the last step Cooperation in Mixed Group is a step that is rarely applied by teachers. In this step only data LJ.9 and LJ.10 apply the step.

Reading Skill

Teaching reading skills in English in secondary schools usually involves comprehending and analyzing different types of written texts. It is important to present different types of texts, including fiction and nonfiction texts, and enhance students' ability to understand and analyze information presented in a variety of formats.

- STAD (Student Teams Achievement Division):

In teaching reading skills using the STAD (Student Teams-Achievement Divisions) strategy, it is important to remember that implementing the steps of the strategy in a balanced way is crucial to the success of the strategy in improving students' reading skills. All these steps relate to each other and work together to create a deep and collaborative learning environment that helps students become better readers.

In the STAD strategy for reading skills, not all STAD steps are implemented simultaneously. Some of the most frequently implemented steps in the learning process are Team Formation, Initial Content Teaching, Team Activities, andIndividual Quizzes. Research conducted by F. Farizawati (2022) [RS.11]was the only one that explained that teachers also applied the steps of STAD in the form of giving assignments to students. However, four other studies conducted by S. Erika (2021) [RS.12], C. Tohamba (2017) [RS.13], R. Oktarina (2018) [RS.14], dan I. Suardi (2014) [RS.15], did not report the implementation of the steps of the strategy. The

results of data analysis from these five studies also showed that teachers did not implement the last step of the STAD strategy, the reflection activity, in the classroom. This is in line with the information listed in the table below:

Code	Student Teams Achievement Divisions							
	Team Formation	Task Assignment	Initial Content Teaching	Individual Quizzes	Team Activities	Team Performance Evaluation	Final Assessment	Reflection
RS.11	✓	✓	✓	✓	✓	✓	✓	-
RS.12	✓	-	✓	✓	✓	-	-	-
RS.13	✓	-	✓	✓	✓	✓	✓	-
RS.14	✓	-	✓	-	✓	✓	-	-
RS.15	✓	-	✓	✓	✓	-	-	-

- JIGSAW

When using the Jigsaw strategy to teach reading skills, the initial steps of forming expert groups, reading and understanding parts of the text, and speaking in expert groups are often considered the most important steps in the Jigsaw strategy.

Code	JIGSAW						
	Material Sharing	Expert Group Formation	Material Learning in Expert Group	Evaluation of Expert Group Performance	Jigsaw Group	Knowledge Sharing	Cooperation in Mixed Group
RJ.16	✓	✓	✓	-	✓	-	✓
RJ.17	-	✓	✓	✓	✓	✓	-
RJ.18	✓	✓	✓	-	✓	✓	-
RJ.19	✓	✓	-	✓	✓	-	-
RJ.20	-	✓	✓	-	✓	-	✓

In the fourth table (RJ) above, the findings indicate that overall the RJ data the teacher more intensively uses the stages of Expert Group Formation, Material Learning in Expert Group, and Jigsaw Group. but in the RJ.19 data the teacher does not apply Material Learning in Expert Group. when viewed in the fourth table (RJ) the application at the Evaluation of Expert Group Performance, Knowledge Sharing, Cooperation in Mixed Group stage is the stage that is less chosen by the teacher in the JIGSAW

strategy in the classroom. of the five data there are only two data in each finding that apply these stages, as found in the fourth table.

Speaking Skill

In senior high school, speaking skills in English are taught with a focus on developing students' oral communication abilities. It is important to create a supportive environment and provide students with opportunities to practice speaking in a variety of communication situations and contexts.

- STAD (Student Teams Achievement Division):

The STAD strategy for speaking skills focuses on group cooperation to learn oral communication. Each team member has the task to practice speaking individually and then contribute to the team. The process of discussion and teaching in expert teams improves understanding and knowledge sharing. By using the STAD strategy, students not only improve their speaking skills, but also learn to work together, teach their classmates, and feel satisfied with the results of their teamwork.

Code	Student Teams Achievement Divisions							
	Team Formation	Task Assignment	Initial Content Teaching	Individual Quizzes	Team Activities	Team Performance Evaluation	Final Assessment	Reflection
SS.21	✓	-	✓	✓	✓	✓	-	-
SS.22	✓	-	✓	-	-	✓	-	-
SS.23	✓	✓	✓	-	-	✓	-	-
SS.24	✓	✓	-	✓	-	✓	-	-
SS.25	✓	✓	✓	✓	-	✓	-	-

From the results of the analysis it is found that the STAD strategy in English speaking skills implements more team formation activities, initial content teaching and team performance evaluation. in SS.21 data the teacher applies team activities in the classroom while in the fourth data does not apply this. The difference also appears in the five data obtained only in the SS.24 data obtained that the teacher did not apply the intial content teaching in English speaking in the learning process. The results of the analysis also found that just like in the previous English skills in speaking, the teacher also did not apply the final assessment and reflection activities at the end of the learning process in the classroom.

- JIGSAW

In the teaching of speaking skills, the Jigsaw strategy provides students with the opportunity to improve their understanding of speaking topics through collective contributions in various subtopics. However, it is important to remember that these steps work together to create a supportive learning environment.

Code	JIGSAW						
	Material Sharing	Expert Group Formation	Material Learning in Expert Group	Evaluation of Expert Group Performance	Jigsaw Group	Knowledge Sharing	Cooperation in Mixed Group
SJ.26	✓	✓	✓	-	✓	✓	✓
SJ.27	-	✓	✓	-	✓	✓	-
SJ.28	-	✓	✓	-	✓	✓	-
SJ.29	✓	✓	-	✓	✓	-	-
SJ.30	-	✓	✓	-	✓	-	✓

In the table above, the analysis shows that teachers use expert group, material learning in expert group, and jigsaw group more often than other activities. Data SJ.27 and SJ.28 record the same activity usage as in the table above. However, when examining data SJ.29, it can be seen that the teacher did not provide material learning in expert group. In addition, in this data, the teacher also conducts evaluation of expert group performance. This indicates that the steps in the jigsaw method are varied and not all steps have to be implemented in class. There are only a few steps that are most often used, especially in the jigsaw group stage.

Writing Skill

In the development of writing skills in senior high school, the approach used focuses on improving students' ability to create effective, clear, and structured texts. To improve writing ability, or writing proficiency, the essential steps of both strategies can be integrated.

- STAD (Student Teams Achievement Division):

Each step in the STAD (Student Teams-Achievement Divisions) strategy for improving writing ability has a unique role and benefit. However, some steps may be more emphasized when it comes to writing skills. Mixed Team Formation, Explanation of Writing Concepts and Techniques, Division of Writing Assignments and Meetings

for Expert Groups, Teaching of Materials for Expert Groups, and Joint Text Development and Revision are the most frequently used steps. Nonetheless, it is important to remember that each step in the STAD strategy has its own value and benefits. All of these steps help students improve their overall writing skills, from understanding concepts to the ability to work together to create texts.

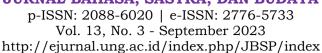| Code	Student Teams Achievement Divisions							
	Team Formation	Task Assignment	Initial Content Teaching	Individual Quizzes	Team Activities	Team Performance Evaluation	Final Assessment	Reflection
WS.31	✓	✓	-	✓	-	✓	-	-
WS.32	✓	✓	✓	✓	✓	-	-	-
WS.33	✓	✓	-	✓	-	✓	-	-
WS.34	✓	-	✓	✓	✓	✓	-	-
WS.35	✓	-	✓	✓	✓	✓	-	-

In the table above, we can see similar analysis results in the previous English skills. Where teachers do not apply final assessment and reflection in the learning process of writing skills in English. In this part, teachers more often apply team formation, individual quiz, and team performance evaluation. Data WS.31 untill WS.33 recorded the same activities as seen in the table above. Similarly, data WS.34-WS.35 also recorded the same activities. However, it is different from data WS.32, where the teacher involves different activities, namely team formation to group activities. However, in this case, the teacher does not apply team performance evaluation. From this analysis, it can be concluded that there are various steps in the STAD strategy, but only some of them can be applied according to the needs in the classroom.

- JIGSAW

Each step in the Jigsaw strategy for writing skill development is essential to help students as a whole improve their writing skills. However, there are some steps that may be considered more important in terms of writing skills, such as the formation of expert groups, learning together in expert groups, teaching the material to the initial group, developing and writing individual texts, and presentation and discussion in class. Students will be able to improve their writing skills and become more informed through the process of knowledge sharing, cooperation, active learning, and discussion.

The results of the analysis in this section show that teachers more often use the activity steps of expert group formation and jigsaw group. However, in this section it is also seen that teachers do not provide sharing materials during the learning process in class. As illustrated in the table below::

Code	JIGSAW						
	Material Sharing	Expert Group Formation	Material Learning in Expert Group	Evaluation of Expert Group Performance	Jigsaw Group	Knowledge Sharing	Cooperation in Mixed Group
WJ.36	-	✓	-	-	✓	✓	✓
WJ.37	-	✓	✓	✓	✓	✓	-
WJ.38	-	✓	✓	-	✓	✓	-
WJ.39	-	✓	-	✓	✓	-	-
WJ.40	-	✓	✓	-	✓	-	✓

Discussion

The discussion will be presented in to two parts. The first one is the discussion of the findings with reference to the relevan literature and the second parts will be discussion the recomendation based on the analysis in the previous part of the discussion. The purpose of this study is to review the classroom application of STAD and Jigsaw cooperative learning models in English language proficiency and to provide recommendations for the implementation of the use of STAD and Jigsaw strategies from the analysis of previous research. This study reveals that although there are many strategies used by teachers in schools in teaching, it still requires a certain strategy to teach especially on students' English skills in high school. In addition, this study found that from various types of activities in both STAD and JIGSAW strategies, not all steps in both strategies are applied. There are some steps that are often used by teachers in teaching English skills in high school and there are activities that are not used. However, there are interesting findings that the application of STAD and JIGSAW has a different impact on students' English language skills. One of the things that affects student learning outcomes is the *group formation stage*. The following discussion

presents a detailed exploration of the findings, offering a deeper understanding of the strategies employed in these language teaching contexts.

Teachers who thought listening often choose the Jigsaw and STAD methods in their teaching, based on the benefits researched by Halimah and Sukmayadi (2019). According to their study, the STAD strategy and the cooperative learning method, in the form of Jigsaw puzzles, have proven to be beneficial for learners. Both of these methods encourage student participation, both academically and cognitively, and aid in the development of essential social skills such as communication, presentation, problem-solving, and leadership. These findings align with the research results of Gillies et al. (2008) and Kouwenhoven, Ernestus, & van Mulken (2016). These benefits provide a strong foundation for the use of Jigsaw and STAD methods in teaching, as they create a learning environment that supports the holistic growth of students, both in terms of academic and social skills.

However, an analysis of research findings presented in table LS indicates variations in the implementation of the STAD strategy. Researchers such as Zaenul Wafa (2021) [LS.1], Dzurriyyatun Ni'mah (2018) [LS.4], and L. Mufaizah (2019) [LS.5] have observed that in classroom settings, teachers have only partially applied various steps of the STAD strategy. According to the information in table LS, consistently applied steps including Team Formation, Initial Content Teaching, Individual Quizzes, Team Activities, and Team Performance Evaluation. Significant differences emerge when examining the research conducted by Asyifa Ainurrohmah (2022) [LS.2] and Warsiman (2022) [LS.3]. These studies reveal variations in the application of STAD strategy steps within the classroom. Ainurrohmah's research (2022) [LS.2] excluded the step of Team Performance Evaluation, as listed in Table LS. In contrast, Warsiman's study (2022) [LS.3] involved the step of task assignment but omitted Initial Content Teaching and Team Activities in the classroom context. This underscores that the specific steps of the STAD strategy can differ based on the researcher's approach and the unique learning context within the classroom.

These variations emphasize the need to consider how the STAD method can be adapted and modified to suit different teaching approaches and classroom settings when it comes to imparting English listening skills. Researchers and educators should be

aware of these differences to make informed decisions about the most effective application of the STAD strategy in their instructional practices. Understanding the flexibility of the STAD method is essential for accommodating diverse teaching methods and student needs in the context of English listening skills instruction.

Based on the discussion the researcher recommends that STAD and JIGSAW strategies can be used in English listening skills. However, the STAD strategy is most suitable for use in English listening skill activities, such as listening to Gist activities to help students understand the essence of audio texts or lectures by collaborating in groups and discussing important points. This is in line with the results of research conducted by Dzurriyyatun Ni'mah (2018). The second activity is listening to details as in Warsiman's research (2022) using STAD to help students understand details in more complicated audio texts by collaborating to break the text into parts that can be studied intensively. Furthermore, the results of Asyifa Ainurrohmah's research (2022) include purposeful listening activities that are suitable for using STAD to help students listen with a specific purpose, for example, looking for answers to certain questions in audio texts and discussing their answers.

Illustratively, the STAD method encompasses pivotal steps such as meticulous team formation, the collective dissemination of initial content, and a judicious evaluation of team performance. In a parallel theoretical perspective, Robert E. Slavin (1990), as articulated in his seminal work "Cooperative Learning: Theory, Research, and Practice," contends that the STAD method serves as an efficacious conduit for enhancing academic achievement through the medium of collaborative group endeavors.

Therefore, the STAD method emerges as a judicious choice for the cultivation of English listening, congruent with the theories posited by Zaenul Wafa and Robert E. Slavin. The meticulously crafted implementation steps of STAD, centering around cohesive group work, not only afford students a structured listening experience but also facilitate a nuanced and comprehensive engagement with academic content. Meanwhile, the JIGSAW strategy is less suitable for applying to these skills. But that does not mean that jigsaw cannot be applied to teaching listening skills. Jigsaw can be applied in any level of education (Slavin: 2005). There are several listening activities that use the

JIGSAW strategy such as listening to dialogs and conversations and the second is News Listening activities. In essence, STAD and JIGSAW are effectively applied to various types of listening skills depending on how the teacher designs the lesson and organizes the groups. Teachers should choose and adjust strategies based on the learning objectives and the needs of the students in their classroom context.

In the realm of teaching reading kill, the adoption of Jigsaw and STAD methods is frequently observed, driven by the documented benefits explained by Halimah and Sukmayadi (2019). Their research underscores the advantages of STAD and Jigsaw cooperative learning in enhancing students' participation, both academically and cognitively, while fostering essential social skills like communication, presentation, problem-solving, and leadership. These findings resonate with the research outcomes of Gillies et al. (2008) and Kouwenhoven, Ernestus, & van Mulken (2016), thus establishing a robust foundation for the pedagogical use of Jigsaw and STAD methods. These methods create an educational context conducive to holistic student growth, encompassing both academic and social skills.

However when we examine the specifics of this teaching strategy, it becomes evident that the implementation of their respective steps is not uniformly consistent. This is evident in various studies, such as the one conducted by F. Farizawati (2022) [RS.11], where teachers incorporate task assignments within the STAD framework. Conversely, studies by S. Erika (2021) [RS.12], C. Tohamba (2017) [RS.13], R. Oktarina (2018) [RS.14], and I. Suardi (2014) [RS.15] do not explicitly mention the execution of the strategy's steps. These difference highlight the adaptability of both the STAD and Jigsaw strategies, allowing teachers to tailor their implementation to suit their classroom contexts.It is noteworthy that, collectively, these studies reveal that the reflective aspect, the final step of the STAD strategy, is not extensively practiced in classrooms. This suggests that educators often prioritize the collaborative and task-oriented elements of the strategy while sometimes neglecting the reflective component.

Turning our attention to the data presented in the fourth table (RJ), we see a varying degree of utilization of specific stages within the Expert Group Formation, Material Learning in Expert Group, and Jigsaw Group steps in the RJ data, part of the Jigsaw strategy. However, in the [RJ.19] data, it is evident that Material Learning in

Expert Group is omitted by the teacher. Furthermore, within the context of the Jigsaw strategy, the Evaluation of Expert Group Performance, Knowledge Sharing, and Cooperation in Mixed Group stages are notably less frequently employed by teachers, with only two data sets implementing these stages.

In conclusion, the application of STAD and Jigsaw strategies in teaching significant differences in the implementation of each step. These differences underline the necessity of tailoring these pedagogical approaches to specific learning environments, recognizing that some stages may be more or less relevant depending on the intended learning outcomes and teacher preferences. This understanding is crucial for educators and researchers to effectively adapt and employ these strategies in diverse classroom settings, emphasizing that flexibility and adaptability are important attributes of successful teaching methodologies.

In the context of improving reading skills, the STAD method retains its suitability. Academic reading is one of the skills that is suitable for using STAD. STAD offers a pedagogical framework that actively encourages collaboration and fosters collective understanding. The theoretical underpinnings supporting this choice can be found in the research of Zaenul Wafa (2021) and Robert E. Slavin (1990). Wafa emphasizes the critical role of cooperation and collective effort in enhancing student understanding, while Slavin argues that STAD serves as an effective channel for improving academic achievement through group cooperation. The systematically designed implementation steps of STAD, emphasizing collaborative group work, serve as a catalyst for students to develop reading skills in a structured and profound manner within an academic context. In adopting the STAD method, teachers can create an environment conducive to comprehensive engagement with English reading skills, fostering not only individual growth but also collaborative learning dynamics among students.

The analysis of the STAD strategy's implementation for English speaking skills reveals a focus on specific classroom activities that align with cooperative learning theories. This emphasis includes activities related to team formation, initial content teaching, and team performance evaluation. These activities are in line with the principles of collaboration and teamwork advocated by experts like Robert Slavin

(1995), David W. Johnson, and Roger T. Johnson (1999). The STAD strategy fosters collaborative learning and communication within student teams, contributing to the development of effective speaking skills.

Furthermore, the adaptability and variation in the implementation of teaching strategies are echoed in the analysis of the Jigsaw method, where teachers more frequently employ expert group formation, material learning in expert group, and jigsaw group activities, aligning with collaborative learning theories emphasizing the role of group work in enhancing learning outcomes. However, exceptions in the data illustrate that educators can tailor their approach based on the specific learning context, reflecting the flexibility and adaptability emphasized by cooperative learning theorists. In conclusion, the analysis underscores that the implementation of the STAD strategy for English speaking skills and the utilization of the Jigsaw method reflect variations and adaptations in teaching practices. These variations are in line with cooperative learning theories and highlight the importance of educators' ability to customize their teaching methods to suit the unique needs of their students and learning environments (Lev Vygotsky (1896) and John Dewey (1859-1952).

Recognizing these variations and being aware of the flexibility of these strategies is crucial for educators seeking to create effective and engaging learning experiences. Additionally, teachers frequently choose the Jigsaw and STAD methods in their teaching, based on the benefits documented by Halimah and Sukmayadi (2019). These methods have been proven to encourage student participation, both academically and cognitively, while also aiding in the development of essential social skills such as communication, presentation, problem-solving, and leadership. These findings align with the results of research conducted by Gillies et al. (2008) and Kouwenhoven, Ernestus, & van Mulken (2016). These benefits provide a strong foundation for the use of Jigsaw and STAD methods in teaching, as they create a learning environment that supports holistic student growth, encompassing both academic and social skills.

Based on a detailed examination of the speaking table data above, it is evident that the most suitable method for teaching speaking skills is the JIGSAW approach. In the SJ table, the analysis results show that the formation of expert groups and jigsaw groups are most often applied in the classroom and show that teachers do not evaluate

the performance of expert groups. However, when comparing the analysis results on JIGSAW and STAD learning, it was found that teachers used STAD (Student Teams Achievement Division) more often in the classroom. This determination is based on the consistent application of the main steps of STAD, such as careful team formation, teaching of initial material, and evaluation of team performance (SS.21, SS.22, SS.23, SS.24, and SS.25). These findings collectively illustrate a well-defined and reliable structural framework for implementing the STAD method in the context of learning English speaking skills. Theoretical support for this choice can be found in research by experts such as Zaenul Wafa (2021) and Robert E. Slavin (1990). These experts emphasize the importance of cooperation, group dynamics, and collaborative learning in improving students' speaking proficiency. The carefully designed implementation steps of STAD, which emphasize collaborative group work, provide students with a structured opportunity to improve their speaking ability in the context of speaking.

The data analysis in both STAD and Jigsaw teaching methods consistently reveals certain trends in English skills instruction. In particular, educators often omit the final assessment and reflection steps when teaching English writing skills, Organizing with the principles of flexible teaching methods. Instead, the focus is predominantly on activities related to team formation, individual quizzes, and team performance evaluation. This trend is evident in data from WS.31 to WS.35, demonstrating a consistent approach.

However, data from WS.32 departs from this pattern, illustrating educators' adaptability as they shift from team formation to group activities to promote diverse learning experiences. In this specific instance, team performance evaluation is not integrated, highlighting the STAD strategy's flexibility, allowing educators to select and modify specific steps to meet the needs of their classrooms.

Within the context of the Jigsaw strategy for enhancing writing skills, every step plays a vital role in comprehensive writing skill development. While all steps are essential, certain ones, such as expert group formation, collaborative learning within these groups, teaching material to the initial group, individual text development and writing, and class presentation and discussion, hold greater significance in terms of

improving writing skills. This approach aligns with cooperative learning theories emphasizing collaborative and experiential learning.

However, the analysis indicates that educators more frequently implement expert group formation and jigsaw group activities in this context, fostering a cooperative and interactive learning environment. However, it's worth noting that sharing materials is not consistently integrated during the learning process, suggesting variable application of the Jigsaw strategy's steps. Educators must consider which steps best suit their specific classroom situations and the needs of their students.

These findings underscore the adaptability of teaching strategies such as STAD and Jigsaw and emphasize the need for educators to tailor their approaches based on their students' requirements and the unique dynamics of their learning environments. Recognizing these variations in teaching practices is crucial for creating effective and engaging learning experiences. Additionally, teachers often choose the Jigsaw and STAD methods in their teaching based on the benefits documented by Halimah and Sukmayadi (2019). According to their research, these methods have been proven to encourage student participation, both academically and cognitively, while also fostering essential social skills such as communication, presentation, problem-solving, and leadership. These findings are in line with the results of research conducted by Gillies et al. (2008) and Kouwenhoven, Ernestus, & van Mulken (2016). The benefits of these methods provide a strong foundation for their use in teaching, as they create a learning environment that supports holistic student growth in both academic and social skills.

Based on the analysis, the researcher recommends teaching writing skills effectively using both STAD and JIGSAW strategies. However, writing skill is more suitable to use JIGSAW strategy. This is because students can research a topic and write parts of an essay or report, then share and combine their contributions in a common work. In addition, it is in line with the effectiveness of cooperative approaches such as Jigsaw in improving student learning outcomes (Johnson and Johnson, 1990).

This research highlights the importance of adapting English language teaching strategies to the classroom context and student needs. Therefore, the appropriate recommendations for each English language skill (listening, reading, speaking, writing) will vary.

In the context of teaching listening skills, both strategies can be effective. However, the researcher recommends that the STAD strategy is more suitable to use when the learning objective is to improve students' ability in more structured and measurable listening situations. Conversely, when deeper understanding and student interaction in more natural listening situations is the focus, the Jigsaw strategy may be the researcher's recommended choice which includes the type of listening that includes listening to dialog and conversation. For reading skills, the STAD strategy emphasizes teamwork and knowledge sharing. The choice of strategy depends on the needs of the students and the learning environment. STAD is suitable if the goal is to improve teamwork in more structured reading. On the other hand, the Jigsaw strategy is more suitable for allowing students to gain a deeper understanding of the reading content and develop analytical skills in a more interactive setting.

In speaking skills, STAD allows students to speak in structured and measured situations, helping them understand the rules of the language and speak effectively. On the other hand, the Jigsaw strategy facilitates more authentic English language interaction and enhances speaking skills in a real-world context. For Writing Skill, STAD can be used to enhance collaboration in structured writing and teach students clear writing rules. Meanwhile, Jigsaw enables students to develop their ability to express their ideas in more dynamic and interactive writing situations.

It is important to remember that the choice of a teaching strategy should be based on your learning objectives, your students' characteristics, and your classroom situation. Adaptation and flexibility in applying teaching strategies are key to achieving optimal outcomes. Furthermore, the most suitable teaching strategy may change as student needs and the learning environment evolve. In the context of teaching listening skill, it is recommended to use the STAD strategy when the learning objective is to improve students' abilities in more structured and measurable listening situations. Conversely, when a deeper understanding and student interaction in more natural listening situations are the focus,

In the end, the recommendations obtained from the results of previous research in this study, in its implementation in the classroom depends on how the teacher implements the STAD and JIGSAW strategies and the conditions of students in the

classroom. These recommendations can be used as a basis or can undergo adaptation changes in the future. The results of the discussions that have been conducted by researchers are not patent. This is returned to the teacher, the learning objectives and the situation of the students in the classroom how to implement STAD and JIGSAW.

CONCLUSION

After conducting an analysis for this research in which this research is to examine various kinds of research that discuss the effectiveness an recommendation of using STAD and JIGSAW in learning English skills, several conclusions are obtained, namely:

1. There are 40 studies used as data sources. The research studies span from 2013 to the present. This selection was made because it shows the novelty of the research and is still relevant to current conditions.

2. In addition to the studies that are the source of data, there are also theories about Student Center Learning (SCL), Cooperative Learning (CL) and STAD and JIGSAW strategies that are supporting data.

3. Based on the results of the analysis previously presented, it was found that STAD and JIGSAW strategies can be applied to teaching all four English skills (listening, reading, speaking, and writing). This is the case because after doing the analysis reseacher recommend that STAD is more suitable for listening and reading skills or reseptive skills. While JIGSAW is more suitable for speaking and writing which are productive skills. The reason for this, in the application of STAD and JIGSAW, not all steps in both strategies are applied.

4. Moreover, despite both strategies can be adjusted to the condition of the students in the class, the learning topic and the learning objectives to be achieved.

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