META-ANALYSIS: THE USE OF COOPERATIVE LEARNING MODEL IN ENGLISH LANGUAGE TEACHING AND LEARNING

THESIS

Submitted in Partial Fulfillment of the Requirements for Gaining the Bachelor degree Education of English Education



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Wassalamu'alaikum, wr. wb.

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ABSTRACT

Cooperative learning is a strategy implemented in the classroom whereby students complete learning activities in small groups and are subsequently rewarded or recognized based on the quality of their group's work. This study is a meta-analysis study that aims to determine the effect of cooperative implementation based on methods of cooperative learning, English skills, based on and school level in English language learning. This study analyzed 56 cooperative learning articles found in the GARUDA Journal database and undergraduate students' theses by the issue date of 2013-2022. There were only 20 studies remaining to be analyzed furthermore. The result showed that the effectiveness of cooperative learning was 1.15 which is categorized as a strong effect. LT (Learning Together) method got the highest effect-size score than the other method of cooperative learning with 1.86 and also categorized as having a strong effect. Listening skill is a dependent variable that is most affected by the implementation of cooperative learning with effect-size of 1.90 Cooperative learning model also gives a measure of higher effectiveness in junior high school than in senior high school. This meta-analysis study provides information to English teachers in Indonesia to implement cooperative learning because the results show that the cooperative learning model is more effective to use in English Language Learning compared to the conventional learning method.

Keywords: meta-analysis, cooperative learning model, effect-size, ELL, ELT

ΜΟΤΤΟ

وَتَعَاوَنُواْ عَلَى ٱلْبِرِّ وَٱلتَّقْوَىٰ ۖ وَلَا تَعَاوَنُواْ عَلَى ٱلْإِثْمِ وَٱلْعُدُوَّنِ • وَٱتَّقُواْ ٱللَّهَ ۗ

"And cooperate with one another in virtuous conduct and conscience, and do not cooperate with one another in sin and hostility. And fear God. God is severe in punishment."

(Qs Al-Maidah [5]: 2)

"Learning to cooperate, cooperating to learn"

-Robert E. Slavin 1985

"Make it easy, make it simple, and no need to rush"

- M. Akbar 2018

DEDICATION

This research is dedicated to the researcher's parents, who have taken care of him until now. Also, the researcher's grandparents H. Abdul Halim Hamim, Hj. Misnawati and the researcher's aunt Ida Lismawati S.Sos., M.Si., who always support the researcher's family. May the Almighty God always bless you all until your last breath. Amen

ACKNOWLEDGEMENT

All praises and gratitude I pray to The Almighty God who has given grace and guidance to me as the author of this research because He has been given the strength to me to be able to complete this thesis. Shalawat and salam to Our Prophet Muhammad SAW who will give us his intercession on the last day. Alhamdullilah, the researcher has successfully completed the research paper as a requirment for obtaining the degree of bachelor education in English Language Education Department of Walisongo State Islamic University (UIN) of Semarang. Hence, the researcher would like to express the deepest graduate to:

- The Dean of Education and Teacher Training Faculty of Walisongo State Islamic University (UIN) Semarang, Dr. Hj Ahmad Ismail, M.Ag.
- Sayyidatul Fadlilah, S. Pd. I, M.Pd, as the Head of the English Language Education Department and as the researcher's thesis advisor for her patience and willingness to provide guidance, helpful corrections, advice, as well as a suggestion and encouragement during the consultation.
- Nuna Mustikawati Dewi, M. Pd as the Secretary of English Language Education Department of Walisongo State Islamic University (UIN) Semarang and as the researchers' academic advisor.
- To all lecturers Education and Teacher Training Faculty of Walisongo State Islamic University (UIN) Semarang. Especially the lecturers of English Language Education

Department of Walisongo State Islamic University (UIN) Semarang

- 5. Ma'rifatul Latifah S. Pd., thank you for carrying me, for those beautiful five years, for being the nicest person to me, and thank you for everything.
- 6. Abyan's family who always let their door open for researcher every time when he need to connect to wi-fi
- 7. Researchers' comrades Dimas Faturrahman and Alm. Sandi Eka Nugraha, thank you for the laugh, the tears and the crazy moment.
- Friends in English Education Department, Hasbi, Yudis, and Luhur. Thank you for always helping researcher.
- 9. Member of KKN 104, thank you for those beautiful memories and memorable 45 days. Good luck for your journey.
- 10. Any other people who cannot be mentioned one by one, for all of the contributions, the researcher tirelessly would like to thank all of you.

Semarang, 19 December 2022

Mushawwir Akbar

TABLE OF CONTENTS

COVER	••••• i
THESIS STATEMENT	ii
ADVISOR NOTE	 iii
ABSTRACT	iv
МОТТО	v
DEDICATION	vi
ACKNOWLEDGEMENTS	····· vii
TABLE OF CONTENTS	ix
CHAPTER I INTRODUCTION	
A. Background	1
B. Problem Identification	6
C. Research Limitation	7
D. Research Question	7
E. Objectives of the Research	7
F. Significances of the Research	8

CHAPTER II

THEORETICAL REVIEW AND CONCEPTUAL

FRAMEWORK

A.	Cooperative Learning	9
	1. Principal of Cooperative Learning	9
	2. Methods of Cooperative Learning	14
B.	Meta-Analysis	18
C.	Effect-Size	23
D.	Previous Study	25
E.	Conceptual Framework	30
F.	Hypothesis	32

CHAPTER III

RESEARCH METHODOLOGY

A.	Research Setting	33
B.	Research Method	33
C.	Criteria Exclusion and Inclusion of the Studies	33
D.	Study Literature Process	34
E.	Research Instrument	36

F. Data Collection Technique	37
G. Statistical Procedure	38
CHAPTER IV	
FINDING AND DISCUSSION	
A. Finding	40
1. Accumulative Effect Size Score of Cooperative	
Learning Implementation	42
2. Effect Size Score Based on the Method of	
Cooperative Learning	44
3. Effect Size Score of Cooperative Learning	
Based on Dependent Variable	45
4. Effect Size Score of Cooperative Learning	
Based on School level	50
B. Discussion	52
CHAPTER V	
CONCLUSION AND SUGGESTION	

A.	Conclusion	57
B.	Suggestion	60

REFERENCES
APPENDICES
CURRICULUM VITAE

LIST OF TABLES

Pages

Table 2.1	Steps of Using Cooperative Learning	11
Table 4.1	Total Unit of Analysis	40
Table 4.2	Effect-Size score of methods of cooperative learning	44
Table 4.3	Effect-Size score of dependent variable	45
Table 4.4	Effect-Size score of school level	48

LIST OF FIGURES

		Pages
Figure 2.1	Conceptual framework	31
Figure 3.1	Process of study literature	35

LIST OF APPENDICES

Pages

Appendix 1	Coding Data Sheet of the Sample and Effect Size Measuring	2
Appendix 2	Accumulative Effect-Size of Cooperative Learning Model	16
Appendix 3	Journal Articles Data Sheet of Cooperative Learning Model	19
Appendix 4	Theses Data Sheet of the Cooperative Learning Model	27

CHAPTER I INTRODUCTION

A. Background of the Research

English First (EF) shows that Indonesia ranked 80th out of 112 countries and 14th out of 24 in Asia, in the 2021 English First Proficiency Index (EF EPI). Those facts should become a challange in order to find out a way to improve students' English proficiency level. Recently, Cooperative Learning, a component of the instructional strategy, receives a great deal of attention from scholars. Numerous studies demonstrate that cooperative learning is more effective than competitive and individualistic learning (Zhang, 2010). Yavuz and Arslan (2018) was also claimed that this learning model supports students in building their learning process through the contributions of other participants, hence making the learning time more successful due to the learner's participation.

Cooperating also the basic rules for a Muslim society. When believers work together there is motivation, enthusiasm and a rise in spirit. Along with that there is Divine help and blessing in the deed. Each believer feels encouraged by the response of the other, and in this way a spark of goodness can become a great light. The light then engulfs society, its beams reflecting on various aspects of the members' lives. What can be achieved through such unity of action cannot be achieved by an individual alone. This is already stated in the Holy Qu'ran (Qs Al-Maidah [5]: 2) وَتَعَاوَنُواْ عَلَى ٱلْبِرِّ وَٱلتَّقْوَىٰ ۖوَلَا تَعَاوَنُواْ عَلَى ٱلْإِثْمِ وَٱلْعُدْوَّنِ ۚ وَٱتَّقُواْ ٱللَّهَ سِإِنَّ ٱللَّهَ شَدِيدُ ٱلْعِقَابِ

"Cooperate with one another in goodness and righteousness, and do not cooperate in sin and transgression. And be mindful of Allah. Surely Allah is severe in punishment."

Cooperative learning can be an effective approach for teaching English as a second or foreign language. In cooperative learning, students work together in small groups to complete tasks or achieve shared goals. This can involve activities such as group discussions and problem-solving exercises. One of the key benefits of using cooperative learning in English language teaching is that it allows students to engage in authentic communication and practice using the language in a social context. It also helps students develop important social skills such as teamwork, communication, and problem-solving, which can be beneficial for their overall language development (Dörnyei, 2001).

Research has shown that cooperative learning can be effective in improving English language proficiency, particularly for lower-level learners (Slavin, 1995). In addition, cooperative learning has been found to be particularly beneficial for promoting English language learning among multilingual or multicultural classrooms, as it can help students with different language backgrounds work together and support one another (Dörnyei, 2001).

To effectively implement cooperative learning in an English language learning context, teachers should carefully plan and structure group activities, provide clear goals and expectations for student participation, and provide support and guidance as needed. It is also important for teachers to assess and monitor student progress and adjust the cooperative learning approach as needed to ensure its effectiveness.

Preliminary observations were carried out by researcher by observing the most widely conducted research data files and published in GARUDA journals and online university respository using Google Schoolar. As the result, researcher found fifty-six titles of cooperative learning model research in English learning that published in the period 2013-2022. Cooperative learning model has many varied and interesting types so that it is widely proposed as an alternative learning model from the traditional model applied by teachers in schools. The cooperative learning model is an effective model to use to measure students' abilities and can involve students actively. The average conclusion of research on cooperative learning models has a positive impact on students.

Data from various previous studies in the field of education is available quite abundantly in the form of published journals and also student theses from various campuses spread across Indonesia. Unfortunately, there are not many studies and research results to summarize and re-examine the effectiveness of the results of a research theme. Research based on existing data can produce a new theory regarding the theme of the study, besides that the results can also use to strengthen the results of previous research. This research can be carried out using meta-analysis research methods. Meta-analysis is a systematic study method accompanied by statistical techniques to calculate the conclusions of several research results (Hagger, 2022). This research using libraries, books or journals as data sources.

Normand (1999) defined Meta-Analysis as an integration process to get an evidence synthesis from the result of many studies. Meanwhile, Kadir (2017) used Meta-Analysis as an alternative analysis design to discover the intensity of learning instruction intervention that concern to enhance mathematical thinking skills. Qin et al. (1995) stated that meta-analysis is designed to summarize a set of related studies to know the effect of the independent variable on the dependent variable. Accordingly, meta-analysis can be used to measure the effect-size and sum up many results of relevant studies. Johnson et al. (1981) reviewed 122 studies about the effectiveness of cooperation and gained 286 findings. They found three results points, that a) cooperative works are highly more effective rather than interpersonal competition and individualistic efforts, b) likewise cooperation with intergroup competition, and c) the distinction between interpersonal competition and individualistic efforts is not really significant. Hilk (2013) conducted another metaanalysis consist of 231 studies on the effects of cooperative learning, competitive learning and individualistic learning on achievement and peer relationships. The results show that cooperative learning is statistically significant and has positive results when compared to competitive learning and individualistic learning.

In language teaching and learning, there are many previous studies using meta-analysis to review certain methods or approaches based on one theme. Stahl and Fairbanks (1986) focused on the effect of vocabulary instruction on children's comprehension of text and on finding which instruction that has the greatest effect. Fifty-two studies were investigated. The result showed mnemonic keyword method had a dependable effect on definition remembrance and sentence comprehension.

The recent meta-analysis in Cooperative Learning in English Language Learning is conducted by Cole (2018), but this study is in a wider range called peer-mediated learning in which Cooperative Learning, Collaborative Learning, and Peer-Tutoring are included in it. The participants are also more varied, including ages between 3 and 18, ELLs and also ESL and EFL learners, and from various language backgrounds. One of the results shows that peer-mediated learning is effective in promoting many outcomes of learning. Several meta-analysis studies have been carried out targeting the field of study at various levels of education and several subjects. However, until now there has been no recent meta-analysis research, especially regarding cooperative learning models in English learning at the secondary education level. Based on the problem and background, the researcher finally conducted a meta-analysis study of accredited national journals and undergraduate student theses to measuring the effect of using the cooperative learning model to be applied as a whole, with the title of research "Meta-Analysis : The Use of Cooperative Learning Model in English Language Teaching and Learning"

B. Identification of the Problem

Based on the background of the research above, some problems of this research can be identified as follows:

- The research conducted by international education company English First (EF) shows that Indonesia ranked 80th out of 112 countries and 14th out of 24 in Asia, in the 2021 English First Proficiency Index (EF EPI).
- 2. There is a lot of research has been conducted about the application of cooperative learning model in the period of 2013-2022
- 3. There is no recent meta-analysis research about the application of cooperative learning in English language learning

C. Research Limitation

Problem limitation in this research are:

- The subject of the research are national scientific articles, both journals and theses that published in the periods of 2013-2022
- 2. The subject was limited by the Cooperative Learning theme and experimental research design only.
- 3. The effectiveness of cooperative learning of group investigation can be viewed from education level, region, and English skills.

D. Research Question

The research problem is formulated into the following questions:

- 1. How is the effect-size of Cooperative Learning in English language learning accumulatively?
- 2. How is the effect-size of Cooperative Learning based on the methods of Cooperative Learning Methods?
- 3. How is the effect-size of Cooperative Learning of on the school level?
- 4. How is the effect-size of Cooperative Learning based on English skills?

E. Objective of the Research

The objective of the research is to analyze the effect-size of Cooperative Learning Model implementation in English language learning, specifically in junior and senior high school.

F. Significance of the Research

1. Theoretically

Theoretically, the significance of the research is expected to enrich the source in Cooperative Learning research.

- 2. Practically
 - a. For the English Teachers, hopefully, this research will be useful to help them determine appropriate alternative strategies to teach English.
 - b. For the other researchers, this research is expected that it will be developed more in the next research.

CHAPTER II CONCEPTUAL FRAMEWORK

A. Cooperative Learning

One of the most widespread and yielding areas of educational theory, research, and practice is cooperative learning, which was pioneered by John Dewey, Vygotsky, and Slavin (Johnson, Johnson, & Stanne, 2000). Slavin (1980) defines cooperative learning as strategies implemented in the classroom whereby students complete learning activities in small groups and are subsequently rewarded or recognized based on the quality of their group's work. Johnson and Johnson (2009) define cooperative learning as the practice of using small groups for educational purposes in which members of the group work together to maximize their own and each other's learning. "organized and managed groupwork in which students work cooperatively in small groups to achieve academic as well as affective and social goals.

1. Principles of Cooperative Learning

According to Johnson et al. (2008), there are five principles for Cooperative Learning. Those are Positive Interdependence, Individual and Group Accountability, Promotive Interaction, Interpersonal and Small Group Skills, and Group Processing. Pablo and Vargas (2014) briefly described those five principles as the following: a. Positive Interdependence

Briefly, this concept refers to the idea that the students in a group have to understand about what they have to do in activities that was given. They also have to rely on each other when doing it.

b. Individual and Group Accountability

The groups in cooperative class must have a clear idea in what they are going to reach individually and as a group. There are individual responsibilities, as well as group or collective responsibilities. Every member in a group has to know that their performance will be assessed by other member in that group.

c. Promotive Interaction

Students have to know that their working is cooperative, not collaborative, that is why each of them must know that they need to encourage and help each other.

d. Interpersonal and Small Group Skills

What matter in this principle is that students have to learn social skills, they need to know how to work with group, deal with diversity of opinion, and negotiate with the members to make right decisions.

e. Group Processing.

The group processing needs the teacher's assessment at the end of the Cooperative Learning activities. Allow the students to know how they did their work, and what problems they had while working. So then, they will come up with solutions to solve the problems and minimize the probability to redo it in the future.

Every learning model has stages or main steps in its implementation as a distinguishing feature from other learning models. The cooperative learning model has six main steps in its implementation. Table 2.1 shows the steps for implementing the cooperative learning model and the teacher's behavior more clearly.

Stage	Techers' Roles
Stage 1	The teacher delivering the lesson
Delivering goals and	objectives that must be achieved and
motivating students	gives learning motivation to students.
Stage 2	The teacher presents information or
Presenting	material to students through
information	demonstrations or readings.
Stage 3	The teacher guides students in group
Divide students	formation and guides in making
into groups	transitions effectively and efficiently
Stage 4	The teacher guides each group when
Guiding the Groups	doing the task only when needed.
Stage 5	The teacher evaluates the results of
Evaluation	group work and gives individual tests

	as a measure of the success of
	achieving goals.
Stage 6	The teacher gives appreciation to each
Giving achievement	student for the efforts and learning
	outcomes that have been achieved.

 Table 2.1 Steps of Using Cooperative Learning Model

In Cooperative Learning, there are many benefits of cooperation activities. Besides improving students' social skills, it also can increase the cognitive skills of students. The cognitive of individuals' development evolves when cooperation between students and teacher, or students and other students happen (Yavuz & Arslan, 2018). Cooperative Learning had positive effects on problem-solving skills (Qin et al., 1995), academic achievement (Slavin, 1980; Johnson et al., 2000), and other attitudinal aspects (Cole, 2013; Celik et al., 2013). Zhang (2010) describes the benefits of Cooperative Learning as the following:

- a. Providing the chance of input and output means that students have opportunities to comprehend input and output language. It makes Cooperative language useful for oral practice and listening comprehension.
- b. Creating an effective climate, the circumstances in the class of Cooperative Learning can increase the self-confidence and self-esteem of students, so they become motivated to reach larger academic success.

- *c. Increasing a variety of language functions* students can get opportunities to involve in various types of communications.
- *d.* Fostering learner responsibility and independence, because cooperative work emphasizes individual accountability and responsibility

Holubec, Johnson, and Johnson (1994, in Richards & Rodgers, 2001) Cooperative learning must aim to improve academic performance and peer relationships in this environment. Students should be compelled by cooperative learning to address their own needs for intellectual, emotional, and social development. Its ultimate goal was to replace the company's rivalry-based structure. Because they place a strong emphasis on contact and communication, some cooperative learning characteristics are also found in communicative language instruction. (Zhang, 2010).

Meanwhile, Cooperative Learning in language teaching has several goals (Richards & Rodgers, 2001):

- a. To provide opportunities for naturalistic second language acquisition.
- b. To help teachers reach this goal and apply it in various curriculum setting.
- c. To sustain limelight to lexical items, language structures, and communicative function.

- d. To give opportunities for students to establish successful learning and communication strategies.
- e. To increase motivation and decrease the stress of students, also create a positive effective classroom environment.

2. Methods of Cooperative Learning

Slavin et al. (1985) stated that Cooperative Learning strategies methods structured. the instructional are systematically capable at every level and in many subjects of school. Here are Cooperative Learning methods that widely have researched and used: Student Team Learning (consist of Student Team-Achievement Division. Teams Games-Tournament, and Jigsaw II), Jigsaw, Learning Together, and Group-Investigation. Slavin et al. (1985) also included TAI (Team Accelerated Instruction) and CIRC (Cooperative Integrated Reading and Composition) to Student Team Learning.

Johnson et al. (1994, in Richards & Rodgers, 2001) mentioned three types of Cooperative Learning that comprise formal Cooperative Learning groups, informal Cooperative Learning groups, and cooperative-based groups. Then Coelho explained three main kinds of Cooperative Learning tasks. Those are Team Practice, Jigsaw, and Cooperative Project. While Olsen and Kagan represented the examples of CLL activities, are Three-Step Interview, Roundtable, Think-Pair-Share, Solve-Pair-Share, and Numbered Heads (Richards & Rodgers, 2001).

Cooperative Learning methods that widely have researched and used in the classroom are:

a. Learning Together (LT)

Learning Together (LT) method, as simple as the name, is applied for students learning together in a group. For example, Zorlu and Sezek (2019) applied the LT method in his research by grouping the students with the determinant of Cooperative Learning. After that, every team learns together, and the indicated group should present the topic.

b. Students Team Achievement Division (STAD)

The learning stage in STAD requires students to discuss and work together with their teammate. In STAD, students are made up usually less than four people per group (Jamaludin & Mokhtar, 2018). The group should represent the entire class; there should be made up of various students' backgrounds. Team members study the material that was given by the teacher each week, whether it a lecture or a discussion. The study is finished when all the members surely understand the material. After that, each member fills out the worksheet individually, but the scores are formed into team score by the teacher.

c. Team Games Tournament (TGT)

TGT are more likely the STAD, but to show their mastery of the material, students play educational games. The member of a group has to answer provided questions related to their topic. Each member of the opposing group also has to ask questions. If the challenger group can't answer the questions from the opposing group, the second member can help. If the challenger group can answer, they get the score. But if they still can't answer it, the score is given to the opposing group. After the game ends, the winner is rewarded.

d. Jigsaw

Another method to implement student team learning is Jigsaw . Jigsaw is a kind of technique that has been applied in various areas, such as language teaching, foreign language teaching, social sciences, and medical sciences. There are six types of Jigsaw, along with the original one. Those are Jigsaw, Jigsaw II-III-IV, reverse Jigsaw, and subject Jigsaw (Karacop, 2017). However, Jigsaw II that is designed by Slavin et al. (1985), is purposed to integrate the original Jigsaw with other Student Team Learning methods.

e. Group Investigation (GI)

in Group Investigation (GI), Zorlu and Sezek (2019) applied this method almost the same as LT, but in the end, two groups performed together. One group presents the topic, while the other investigates the group which is presenting.

- f. Cooperative Integrated Reading and Composition (CIRC) In his previous book, Slavin et al. (1985) Cooperative Integrated Reading and Composition (CIRC) is comprehensively programmed for teaching reading and writing (Slavin, 1987 in Slavin, 1991)
- g. Next is Think-Pair-Share method. Frank Lyman firstly introduced TPS in 1981, and since then, numerous scholars have refined and expanded upon the idea. Kagan, meanwhile, organizes the procedures. TPS employs the following five procedures. To begin, the class is divided into pairs; the teacher then presents pupils with a question or prompt.
- h. Numbered Head Together (NHT)

The last is Numbered Head Together. After grouping the students into four members, each member gets a number from one to four. After that, the teacher can pose a question or a problem. After all the group members understand the question or the problem, the teacher can call a number, and the number called should answer the question from the teacher for their team.

B. Meta-Analysis

Based on history, they who began and developed methods that are bound to massive data and then quantitatively integrate them are scientists and statisticians in America. It became popular since Gene Glass introduced this term in 1976 at the annual convention of the American Education Research Association (Shelby & Vaske, 2008). Karl Pearson in 1904 introduced metaanalysis as a research method for studies in the field of health or medicine. However, in its development meta-analysis as a type and research method is used to examine various problems or topics in various fields. Meta-analysis in education began to be carried out around the 1970s by Gene Glass, Frank L. Schmidt and John E. Hunter (Kulik & Kulik, 1989). Gene Glass in 1976 declared the importance of conducting meta-analytical research in the field of education based on the abundance of results of studies in the field of education that were not followed up. At that time, literacy on meta-analysis in the field of education was not sufficient (Kulik & Kulik, 1989). Glass defines meta-analysis as a statistical analysis of a collection of many individual research results as an integration of findings.

The meta-analysis proposed by Glass has several characteristics that can be used as references, including 1) metaanalysis includes review research, 2) meta-analysis applies statistics from a summary of research statistical results, not in the form of raw data, 3) meta-analysis includes studies or a large number of studies, 4) the meta-analysis focuses on treatment effect sizes, not just statistical significance, and 5) the meta-analysis includes the relationship between study components and outcomes (Kulik & Kulik, 1989).

Shelby and Vaske (2008) also stated that Meta-Analysis is a quantitative technique measured by specific measurements like effect-size, so the strength of relationships in variables of included studies is indicated. In short, meta-analysis is a statistical analysis, statistical procedures, or quantitative technique to integrate many related studies. The integrated studies are usually measured by a certain statistical method called effect-size, used as the summary statistic to know the strength of the relationship between variables. Shelby and Vaske (2008) stated that each variable relationship of concern for each study could be calculated by effect-size. Even so, they also argued that effect-size is not a requirement for research to be said as a meta-analysis. It was only an example of a common statistic used (Shelby & Vaske, 2008).

Since traditional narrative review also synthesizes all relevant studies, the terms "systematic review" and "Meta-Analysis" are sometimes confused. Additionally, it is carried out by professionals in the field and integrates numerous studies into a narrative structure. Synthesis of research is often just called this term. Meta-analysis, on the other hand, is just another name for a research synthesis whose stated aim is to draw broad conclusions based on the integration of existing empirical studies (Cooper et al., 2019).

Basically, there is no single correct approach in conducting a meta-analysis. However, there is always an organizational framework to conduct research, especially meta-analysis. The steps are comparable to primary research (Shelby & Vaske, 2008). Those steps are shortly explained below:

a. Problem Conceptualization and Operationalization

In the first step, the researcher conceptualizes the problem, operate the variables, and then create the hypothesis. In a metaanalysis, the most important component is planning for inclusion and exclusion. The researcher should consider some factors such as sampling method, research methodology, time frames, publication types, cultural/language differences of studies.

b. Data Collection and Processing

The second step is to identify article collection and organizing citation information. In a meta-analysis, there are coding studies that analogous to survey research. Type(s) of software used and the structure of meta-analytic files are important decisions in the data collecting step.

c. Analysis

The third step is to compute the summary effect size. Three variables are needed, a statistic of effect size, standard error of effect size, and the inverse variance of the standard error. Each effect size of each study is measured for sample size differences. Once the studies have been coded, the necessary adjustment to the effect size statistics have been created, and the effect sizes can be analyzed.

d. *Reporting*

The last step is to report the result. The researcher interprets the result based on meta-analysis personal judgments, research understanding, and work purpose.

According to (Shelby & Vaske, 2008) there are two advantages of Meta-analysis. First, this design provides evidence for or against the significance of practical research. Through the use of summary statistics, it encourages researchers to examine overall illustration and give confidence to repeatable results. Second, this meta-analysis uses a rigorous methodology or quantitative research synthesis. It will encourage researchers to get profound data, focus on the research hypothesis, and identify moderator variables.

Besides, there are also the disadvantages of this research that some may argue about this, most of it because of the potential error and bias in meta-analysis. The critics have shown this design may be flawed. Borenstein (2017) summarized and eloquently answered the critics. Here are the critics, while the responses can be found out in the source article.

- a. Each study is different from the other, so a single number cannot summarize an entire research area.
- b. There is publication bias, where negative results of studies are less like to be published.
- c. The quality of what to be put into meta-analysis will determine the findings.
- d. Meta-analysis may show a completely different result than a large Randomized Controlled Trial (RCT).
- e. The researcher may amateurish and conduct the meta-analysis deficiently.

C. Effect Size

In a meta-analysis, the effect size is a measure of the strength of the relationship between two variables. It is used to quantitatively summarize the results of a set of studies, and to compare the magnitude of the effect across different studies. There are several different types of effect sizes that can be used in a meta-analysis, including (Borenstein et al., 2009):

1. Standardized mean difference: This measures the difference between the means of two groups, standardized by the pooled standard deviation.

- 2. Odds ratio: This measures the odds of an event occurring in one group versus another.
- 3. Risk ratio: This measures the risk of an event occurring in one group versus another.
- Cohen's d: This is a measure of the standardized mean difference between two groups, calculated as the difference in means divided by the pooled standard deviation.
- 5. Hedge's g: This is a modified version of Cohen's d that adjusts for small sample sizes.

Calculating effect sizes allows researchers to compare the magnitude of the effect across different studies, and can help to identify trends or patterns in the data. It is an important tool for synthesizing the results of multiple studies and for making informed conclusions about the relationships between variables.

Some advantages of using effect size in a meta-analysis include:

 Effect size allows for the comparison of results across studies: By standardizing the measure of the relationship between variables, effect size allows researchers to compare the magnitude of the effect across different studies, even if the studies used different measures or had different sample sizes (Borenstein et al., 2009). 2. Effect size provides a more precise estimate of the strength of the relationship:

Effect size takes into account the sample size and variability in the data, which can provide a more accurate estimate of the strength of the relationship between variables than measures such as p-values (Borenstein et al., 2009).

 Effect size can help to identify trends or patterns in the data: By calculating effect sizes for each study and pooling the results, researchers can identify trends or patterns in the data that may not be apparent when looking at individual studies (Borenstein et al., 2009).

Some disadvantages of using effect size in a meta-analysis include:

- Effect size can be sensitive to the choice of the specific measure: Different measures of effect size (e.g., standardized mean difference, odds ratio, etc.) can yield different results, and the choice of measure can influence the interpretation of the results (Borenstein et al., 2009).
- Effect size can be sensitive to the assumption of normality: Many measures of effect size assume that the data are normally distributed, which may not always be the case (Borenstein et al., 2009).

3. Effect size can be difficult to interpret: The magnitude of an effect size is often not intuitive, and it can be difficult for non-technical readers to understand the meaning of different effect sizes (Lakens, 2013).

D. Previous Studies

The previous studies in a meta-analysis, specifically about the effectiveness of Cooperative Learning, had been conducted by researchers (Johnson et al., 1981; Johnson et al., 2000; Huddy, 2012; Turgut & Turgut, 2018; Cole, 2018; Alacapinar et al., 2020; Ridwan et al., 2022). Many of them showed positive results of using Cooperative Learning model.

In order to boost attainment and productivity, Johnson et al. (1981) analyzed 122 studies of cooperative effects versus competitive and individualistic efforts in North American samples. They pooled the data from all these investigations into a metaanalysis, which yielded 286 findings. The researchers concluded that there are four conditions to examine because some of the studies considered intergroup competition to be an integral part of the cooperation's operation. Cooperative, cooperative with intergroup competition, competitive, and individualistic settings were compared. After measuring by effect-size as statistical analysis, the result showed that a) cooperative works are highly more effective rather than interpersonal competition and individualistic efforts, b) likewise cooperation with intergroup competition, and c) the distinction between interpersonal competition and individualistic efforts is not really significant. Although competition is included when operating the cooperative, it has no significant differences with cooperation without competition.

Another meta-analysis was carried out by Johnson et al. (2000). This study analyzed data from a wide range of investigations into how Cooperative Learning affects students' performance in the classroom. Academic programs typically incorporate coursework and research on cooperative learning across a wide range of subject areas, pedagogical approaches, learning contexts (both traditional and non-traditional), and supplementary educational opportunities (such as after-school and summer camps). Researchers looked at which aspects of Cooperative Learning would be most useful to instructors. The statistical analysis used in this research is also effect-size. There are 158 studies that meet the criteria included. All the studies were conducted since 1970 with 28 percent since 1990, and all related characteristics were presented in an arranged table. The result of this meta-analysis showed that Cooperative Learning with Learning Together (LT) as the method had the biggest impact rather than competitive learning and individualistic learning. Afterward, LT is followed by other methods.

Studies of Cooperative Learning in higher education as seen through the lens of human communication were analyzed by Huddy (2012). This meta-analysis includes 19 articles that experimentally investigate the efficacy of Cooperative Learning at the college and university level, selected from a pool of more than 1400 articles. This study concluded that the learning outcomes of higher education were not significantly different between the Cooperative Learning format and the traditional lecture/discussion format. Nonetheless, he reasoned that the social benefits of cooperative learning outweighed the drawbacks. In conclusion, this Cooperative Learning format for public speaking class can promise the last, interpersonal benefit in classes involving speaking.

Turgut and Turgut (2018) conducted meta-analysis research in the field of mathematics. He examined the impact of Cooperative Learning on mathematical proficiency. Using 59 effect size values derived from 47 studies. There are 4 negative values and 55 positive values. In 55 studies, the results indicate that cooperative learning techniques are implemented on behalf of the experimental group. The calculated average effect size according to the random effect model is 0.84. This value indicates the medium level of effect according to Cohen et al., or in other words, the research indicates that Cooperative Learning is effective for mathematics students. .

Cole (2018) conducted the most recent meta-analysis of Cooperative Learning for ESL, but the scope of this study is much broader. Cooperative Learning, Collaborative Learning, and Peer-Tutoring are all forms of peer-mediated learning. There is a wide range of diversity among the participants, who range in age from 3 to 18 and come from a wide range of linguistic and cultural backgrounds. While the results showed that peer-mediated learning was effective in promoting many learning outcomes, the construct was found to be insignificant as a predictor of oral and written language outcomes. At the same time, its impact on attitudes and behavior cannot be overstated.

Alacapinar et al., (2020) conducted another meta-analysis study about the use of cooperative learning. Five doctoral dissertations and twenty-six master's or doctoral theses that are relevant to the study's problem and provide sufficient data have been included in the meta-analysis. The research utilized a metaanalysis of operational effectiveness. The outcomes of students' performance on tests of cognitive, affective, and psychomotor skills were examined to see how the cooperative learning approach affected learning outcomes. Findings indicate a moderate effect size in the affective domain and a large effect size in the cognitive domain. The results show that the effect of cooperative learning on classroom instruction is moderately significant when it comes to affective domain scores but highly significant when it comes to cognitive domain scores. In the case of the psychomotor domain, the effect is not significant.

Recently, Ridwan et al., (2022) conducted another metaanalysis in math subject. From 22 studies, the findings indicated that cooperative learning had an efficacy of 0.89, indicating a medium impact on the mathematics learning outcomes of vocational high school students. The cooperative learning model also offers a metric for how much more effective learning is at a sample size of 1–30 students compared to more than 30 students, and in grade 11 compared to grade 10. However, factors such as grade level and sample size determine how much of an impact cooperative learning has on mathematics learning outcomes in the medium effect category.

E. Conceptual Framework

This meta-analysis is conducted to measure the result of previous research about Cooperative Learning Models in English Language Teaching and Learning. Quantitatively, it is measured by effect-size formulas. Therefore, the average and variant score or deviation standard is known. From the collected data, the result is interpreted. The interpretation based on each research question is answered.

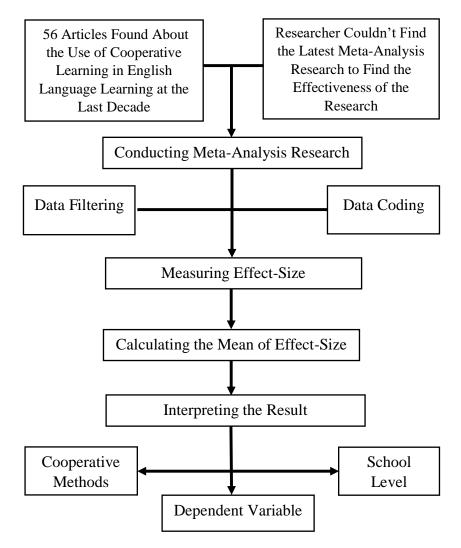


Figure 2.1 conceptual framework

F. Hypothesis

Based on the conceptual framework, the hypothesis of this research is, cooperative learning model, has a big impact towards English language learning as whole.

CHAPTER III RESEARCH METHODOLOGY

A. Research Setting

This research is started by collecting national journal articles indexed by SINTA using GARUDA and Google Scholar database published by the date issue of 2013-2022 by using combined keywords such as "Cooperative Learning" and "English Language Learning" (Ridwan et al., 2022). In this research, the researcher also uses undergraduate students' theses that have been published trough open access repository of national universities. This research is started from October and finish in December 2022.

B. Research Method and Design

The research design that the researcher used is Meta-Analysis. This research method summarizes the results of previous research that has one theme and also under certain criteria. This research used theses and journals as the primary source. The statistical procedure used in this research is effect-size to know the strength of the relationship between each variable.

C. Criteria for Exclusion and Inclusion of the Studies

The following criteria were used to determine whether a study would be included in the review for purposes of estimating

the effects of cooperative learning in English language teaching and learning:

- 1. The exclusion criteria
 - a. Published to Internet
 - b. the research conducted between 2013-2022
 - c. the research conducted between in secondary school only
 - d. the subject of the research is Cooperative Learning Model.
- 2. Inclusion criteria
 - a. the research design of the article is experimental research or quasi-experimental research
 - b. the research must contain the needed quantitative data such as the mean of experimental group, mean of control group, and standard deviation of the control group.

D. Study Literature Process

The procedure in this study is adapted to the meta-analysis steps in social research proposed by Card (2012), namely:

 Conducting a literature review or multiplying the literature to determine the formulation of the research problem. The topic studied from the formulation of the problem in this research is the effect of using cooperative learning models in learning English,

- 2. Looking for research reports or articles that are relevant or related to the topic to be researched. This stage is conducted by determining the research unit that will be used as a data source. The research unit used is articles in journals published nationally with predetermined limits. Search for articles from the unit is done online through national universities repository sites and related journal networks
- 3. Evaluating articles and applying inclusion and exclusion criteria to find the part to be researched. The researcher reads the title of the article and the abstract that includes the objectives and research methods to select articles by adjusting to the formulation of the problem
- 4. Analyzing and interpreting the articles. Several articles that have been selected are analyzed and studied, grouped and compared based on the categories that can be found from these reports. Article analysis is carried out carefully on each article so the weaknesses and strengths are known
- Compile the results of the report. After all stages of the research are carried out, the conclusions of the meta-analysis research will be obtained.

The following flow chart illustrates the procedure for finding relevant literature studies with these criteria:

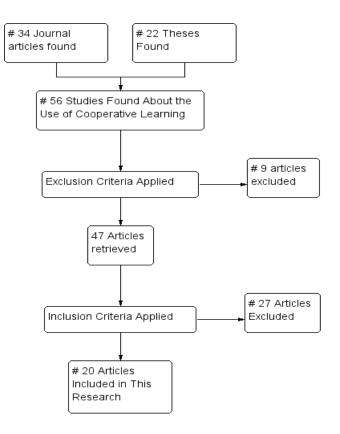


Figure 3.1. flowchart of study literature process

Research Instrument

The variables used for coding in capturing information about the effect size in meta-analysis research as has been conducted by Kadir (2017), they are:

- 1. Article data consisting of the name of the researcher, the title of the study, the name of the journal and the year of publication,
- 2. The characteristics of the sample in the form of research sites, research subjects and research sample.
- Variables, designs and instruments in the form of independent and dependent variables, research design and hypothesis testing.
- 4. Learning intervention in the experimental class and the control class.
- 5. effect sizes and the mean of effect size.

E. Data Collection Technique

Data collection is carried out by researcher by looking for articles that are relevant or related to the topic to be studied on internet network sites. The collected data is research data in accordance with the required variables, as stated in the coding data sheet. The results of the data then will divide according to groups based on data about the average of each sub-study of each experimental group and control group, as well as the standard deviation of each sub-study. Researcher have found fifty six articles about cooperative learning method of. All articles found have to met exclusion and inclusion criteria that have been explain above. Referring to the variables in the coding sheet, from the fifty-six articles, then will be analyze for their contents and selected according to the needed data to calculate the effect size. After going through the entire selection process to fulfill the sample criteria, there are twenty articles that can be analyzed furthermore and used as the research data report whose effect size will be calculated.

F. Statistical Procedure

 The data analysis technique in this research uses the effect-size formula by Glass et al. It is described as the following (Fritz et al., 2012):

$$\Delta = \frac{\overline{\mathbf{X}}_{E-} \, \overline{\mathbf{X}}_{K}}{S_{k}}$$

Where:

 Δ = effect size

 \overline{X}_E = mean of the experimental group

 \overline{X}_K = mean of the control group

 S_k = standard deviation of the control group

2. For experimental research using the one-way ANOVA analysis technique, the effect size formula is described below:

$$\eta^2 = \frac{JK_{antara}}{JK_{total}}$$

3. Meanwhile, for experimental research using the two-way ANOVA analysis technique, the effect size formula is described below:

$$\eta_A^2 = \frac{JK(A)}{JK(A) + JK(D)}$$

$$\eta_B^2 = \frac{JK(B)}{JK(B) + JK(D)}$$

$$\eta_{AxB}^2 = \frac{JK (AB)}{JK (AB) + JK (D)}$$

4. For interpretation of the result, Cohen (1998, in Kadir 2017) proposed three effect size criteria:

Low effect	$: 0.01 < \eta 2 \le 0.09$
Medium effect	$: 0.09 < \eta 2 \le 0.25$
Sttrong effect	: $\eta 2 > 0.25$

CHAPTER IV

FINDING AND DISCUSSION

A. Finding

There are 56 national articles that researchers' found about Cooperative Learning on the Internet and published in several journal databases, namely, Google Scholar, Garuda Journal and National Universities Repository, and framed by issue date 2013-2022. However, there are only 20 studies met both exclusion and inclusion criteria. The rest of them were excluded and can't be analyzed furthermore. After all the 20 articles were coded, 60 subunits of analyses were found. The data is described in table 4.1.

Group Of Analysis	Unit of Analysis	N
	GI (Group Investigation)	6
Methods of	STAD(StudentsTeamAchievement Division)	3
Cooperative	TGT (Team Games Tournament)	3
Learning	ning NHT (Numbered Head Together)	
	TPS (Think-Pair-Share)	2
	Jigsaw	2

Table 4.1 Data of Analysis Unit

	CIRC (Cooperative Integrated Reading and Composition)	1
	L-T (Learning Together)	1
	Reading Comprehension	9
Dependent Variable	Grammar Comprehension	3
	Vocabulary Mastery	3
	Writing Skill Comprehension	2
	Speaking Skill	2
	Listening Comprehension	1
School Level	Junior High school	12
	Senior high school	8
Total Unit of Analysis		60

Based on the table above, we can find that the number of research that is conducted in junior high school is higher than senior high school. There are 12 articles conducted in junior high school, and in senior high school, only eight articles. The area of English skill that is reached is also only found in six skills, and those are reading, speaking, writing, vocabulary, grammar, and listening. The most analyzed skill is reading and followed by the rest.

Meanwhile, the various methods of Cooperative Learning consist of eight methods. The most used is Jigsaw; 6 theses use GI (Group Investigation) in their experimental research for the Cooperative Learning method. Than followed by three theses of STAD (Students Team Achievement Division), three TGT (Team Games Tournament), two of TPS (Think-Pair-Share), two of NHT (Numbered Head Together), two of Jigsaw. Meanwhile, these last methods are only used once. CIRC (Cooperative Integrated Reading and Composition) and L-T (Learning Together)

1. Effect-Size of Cooperative Learning Model in English Language Learning

There is a lot of research about Cooperative Learning in nationally published on the internet. In this focus, the researcher collected 56 articles that consist of 34 journal articles from GARUDA journal database and 22 undergraduate student theses that found in the Google Scholar database and online repositories of national Universities by the issue date of 2013-2022.

After conducting a comprehensive analysis of all the articles and applying exclusion and inclusion criteria, there were only 20 research remains that met the criteria. **Appendix2** shows that from 20 units of research that have been coded, almost all results of the research have a strong Effect-Size category of effect size there's only a unit that is categorized as a medium effect. However, the average result showed that the Effect-Size score in Cooperative Learning accumulatively is

1.15 and categorized as a strong effect. Those findings signify that accumulatively Cooperative Learning greatly affects students' English learning. According to recent research, this finding is in accordance with the Cooperative Learning research that it had a bigger effect than the traditional method.

Cooperative Learning has a lot of methods and techniques that can be applied to various subjects. The strategy of the application also has many developments as time goes by. From the collected data in this research, the researcher found eight methods applied in various English skills. Cooperative Learning methods have a role as independent variables that can affect students' English skills. All the eight methods have a great average effect size score. The result showed that the Learning Together method has the biggest effect size on English Language Learning. It is followed by Think-Pair-Share, Cooperative Integrated Reading and Composition, Student Team Achievement Division, Jigsaw, Numbered Head Together and Team Games Tournament with the lowest Effect Size score

The accumulative result shows that the Effect-Sizes average in Cooperative Learning experimental research from 20 articles reaches 1.15 and is categorized as a strong effect. This result gives a clear description that Cooperative Learning accumulatively has a great effect on English Language Learning. All the articles showed a positive result that makes the average of effect-size also positive.

2. Effect-Size of Methods of Cooperative Learning

Cooperative Learning has a lot of methods and techniques that can be applied to various subjects. The strategy of the application also has many developments as time goes by. From the collected data in this research, the researcher found eight methods applied in various English skills. Cooperative Learning methods have a role as independent variables that can affect students' English skills. In this research, the researcher has found eight methods of Cooperative Learning, and all of the eight methods have a great average effect size score. From

Table 4.2 shows the result that the LT (Learning Together) method has the biggest effect size on English Language Learning then, followed by Think Pair Share, Cooperative Integrated Reading and Composition, Group Investigation, Numbered Head Together, Student Team Achievement Division, and Team Games Tournament.

Table 4.2 Effect-Size Based on Methods of Cooperative Learning

Cooperative Learning	N	Average	
Method		of Effect	Category
Memou		Size	
GI (Group Investigation)	6	1.21	
STAD (Students Team	3	0.86	
Achievement Division)			
TGT (Team Games	3	0.57	
Tournament)			
NHT (Numbered Head	2	0.90	
Together)			Strong
TPS (Think-Pair-Share)	2	1.50	Effect
Jigsaw	2	1.20	
CIRC (Cooperative	1	1.48	
Integrated Reading and			
Composition)			
L-T (Learning Together)	1	1.86	
Mean		1.19	

Table 4.2 also shows that the average of effect size based on the Cooperative Learning methods is quite big, 1.19. The highest average of effect-size score in Cooperative Learning methods is the L-T method, with an average score of 1.86 then, followed by the Think Pair Share method, which is 1.59. The third highest is CIRC, and it is followed by GI, NHT, Jigsaw, STAD and the last is TGT with a score of 0.57

a. Learning Together (LT)

Learning Together places the highest average of effect score rather than any methods this is in line with the Meta-Analysis research conducted by Johnson & Johnson (2000) where learning together occupies the first position when compared to other cooperative learning methods. Learning together method was created by D.W. Johnson and R.T. Johnson. The most significant aspects of this method are the existence of a collective objective, sharing opinions and resources, division of labor, and reward for the group. During the first implementation to create a single product of work, students collaborated in groups, sharing ideas and resources and asking each other for rewards before the teacher provided them. Acikgoz (2003 in Gokkurt et al,. 2012)

b. Think-Pair-Share (TPS)

In this meta-analysis research Think-Pair-Share method placed the second highest effect size. With the average effect size of 1.50 Think-Pair-Share also categorized as the strong effect method of cooperative learning. According to Lymann (1981), Think-Pair-Share activity allows students to feel more comfortable expressing their ideas in addition to building social skills, this method enhances the speaking and listening abilities . When students collaborate in pairs, they learn from one another.

c. Cooperative Integrated Reading and Composition (CIRC) The average effect size score of this method is 1.48 and categorized as a strong effect. Just like the name, this method was designed to develop students reading skill. Slavin (1995) stated that CIRC is a comprehensive method for teaching reading and writing. The benefits of using this method in the classroom are; Increas students opportunities for read aloud and receive feedback on their reading , train students to respond on another'r reading, make students to be active and braver in the classroom (Slavin, 1995)

d. Group Investigation method (GI)

Based on the data analysis, the Group Investigation method is the most popular method. Six articles utilized group investigation as their independent variable. In addition to being an alternative to traditional teaching methods, the Group Investigation method is a popular choice among researchers. Group Investigation is an effective organizational method for motivating and directing student engagement in learning. Students actively contribute to determining the course of classroom events. Additionally, by communicating openly and cooperating in the planning and execution of their investigation, they can accomplish more than they would as individuals. The final product of the group's work reflects the contributions of each member, but it is more intellectually robust than individual work produced by the same students (Sharan & Sharan, 1989) The average effect size score of the GI method is 1.21, which is also categorized as a strong effect.

e. Numbered Head Together (NHT)

NHT also categorized as a strong effect method with the average of effect size of 0.90. This method makes sure that each student in a group is aware of the solution to the issues or inquiries posed by the teacher. Everyone on the team needs to be ready because no one can predict which number will be called. It implies that each student in a cooperative learning class has a unique understanding. The student can express the concept by drawing on his or her own understanding. Each student then adds his or her own perspective after sharing their thought or response with their groupmates. To put it another way, every group member has the opportunity to share their thoughts. f. Jigsaw

From two samples that using Jigsaw as their independent variable, Jigsaw method got the average effect size score of 1.20 and still categorized as a strong effect method if compared with the conventional learning method. According to Kessler (1992) Jigsaw mmethod provides an excellent learning environment for the acquisition of language through relevant content, and Jigsaw method can boost classroom participation in conversation. The jigsaw method also enables students to communicate more complexly.

g. Students Team Achievement Division (STAD)

In this research, STAD also showed a good impact on English language learning with gaining an average score of 0.86, STAD method categorized as a strong effect method. Based on the statement of Armstrong and Palmer (1998), STAD is positively impacted in terms of inter-racial relations, attitudes toward learning and school, peer support, control focus, time spent on tasks, peer relationships, and cooperation. Students will gain the opportunity to interact with friends who may have different backgrounds and support one another as part of a team learning environment.

h. Team Games Tournament (TGT)

TGT got the lowest of effect size score in this research with the average score of 0.57, but it can't be concluded that TGT not effective to use in English learning. Based on the research that conducted by Larson et al. (1984) Cooperative Learning was more effective in students' achievement than using traditional teaching. Cooperative requires heterogeneous learning, on the other side traditional teaching only focus on individual teaching. Thus, the result showed that Cooperative learning got higher achievement than traditional teaching.

3. Effect-Size of Dependent Variable of Cooperative Learning

In the analyzed articles, methods of Cooperative Learning are applied to various English skills. The dependent variables of the articles related to English skills. Even almost all of it is focused on a certain English skill. Grouping data based on English skills is presented in table 4.3

English Skills	N	Average of Effect- Size	Category
Reading Comprehension	9	0.93	
Grammar Comprehension	3	1.38	
Vocabulary Mastery	3	1.13	
Writing Skill Comprehension	2	0.62	Strong
Speaking Skill	2	1.54	Effect
Listening Comprehension	1	2.90	
Mean		1.41	

Table 4.3 Effect-Size Based on Dependent Variable

Table 4.3 shows that the average effect size based on English skills has a strong effect, which is 1.41. Listening Comprehension has the highest effect rather than any of the skills. From the highest to the lowest, it is followed by speaking, grammar, vocabulary mastery, reading comprehension, and then the lowest is writing.

The dependent variable in all the samples of theses related to English skills. They focus on English language learning, even in a certain skill. In their research, Cooperative Learning is examined to improve students' skills or know the effectiveness of certain English skills. In this study, the researcher found six skills that were analyzed. There are reading, speaking, writing, grammar, vocabulary and listening.

The number of analyzed articles is 20, of which 9 articles in analyzing reading skill, 3 in grammar, 3 in vocabulary, 2 in writing, and 2 in listening. The average effect size of each skill is counted and found the biggest average of effect size in listening, followed by speaking, reading, grammar, vocabulary, and the lowest is writing. Therefore, listening skill has the highest average of effect size, but it cannot be concluded that Cooperative Learning has the greatest effect on listening skill because the researcher can get only an article that analyzed the use of cooperative learning in listening skill. Reading skill which has the most quantity also has a major average of effect size score, that is 0.93, However, Cooperative Learning has a great impact on all the analyzed skills

4. Effect-Size of Cooperative Learning Based onSchool Level

Based on the exclusion criteria, the articles used in this meta-analysis research only focused on English Learning in Junior and Senior high school. So then, the research constricts the limitation of the research that the articles should be conducted in junior or senior high school. The score of Effect-Sizes that is grouped based on the school level is presented in Table 4.4. Table 4.4 shows that the average effect size based on the school grade has a strong effect, which is 1.14. From the calculated data, the average effect size in senior high school is higher.

School Level	N	Average of Effect-Size	Category
Junior High School	12	1.26	
Senior High School	8	1.03	Strong Effect
Mean		1.14	

 Table 4.4 Effect-Size Based on School Level

Using Cooperative Learning in the classroom is not as simple as it may appear, (Lynda & Celeste, 2017; Kimmelman & Lang, 2018) discovered through their research that implementing Cooperative Learning requires significantly more time and requires both teachers and students to be active participants. This strategy is also difficult to manage and requires additional planning. However, much research has been about Cooperative Learning conducted approved the effectiveness of learning in many schools. One of the most remarkable and fertile areas of theories, research, and practice in education is Cooperative Learning (Pan & Wu, 2013). That is why several studies have also shown the effectiveness of Cooperative Learning methods conducted in Junior or Senior schools (Yavuz & Arslan, 2018; Zorlu & Sezek, 2019).

This study involves 12 research conducted in Junior high school and eight in Senior high school. Table 4.4 shows the average effect size score in each grade of the schools. Research in junior high schools gain 1.26 as the average of effect size score, and it is categorized as a big effect. While the research in senior high schools gains 1.03 as the average of effect size score, it is also categorized as a strong effect. This meta-analysis research shows that applying Cooperative Learning in junior high school has a higher average Effect-Size score rather than in senior high school. However, both show a great effect with a mean 1.14 of effect-size score. Based on the score, it could be concluded that Cooperative Learning is worth recommending to be applied in both junior and senior high schools.

B. Discussion

Preliminary research was carried out by the researcher to find articles that had a research theme using the cooperative learning model. The researcher managed to find fifty-six articles consist of 34 journal articles and 22 undergraduate student' theses, but could only analyze 20 articles that met the criteria which consist of 5 journal articles and 15 of student theses. Most of journal articles were excluded when the inclusion criteria were applied. Most journal articles were eliminated from the analysis process because their research didn't contain numbers or statistical results needed to calculate the effect size.

Besides using journal articles as a sample, researcher also used student theses as a sample in this study. In fact, researcher have found many theses that use the cooperative learning model as an independent variable in their research, but many of these theses do not include their findings when they are published on the internet. That's why the researcher could only find 22 theses even before the exclusion criteria were applied. In addition, researcher are also worried that certain biases will occur due to theses that are written by students. In other words, the sample is not published research in a certain trusted journal database. Thereby, the quality of the sample cannot be fully guaranteed. This research also took and analyzed quasiexperimental research, so researchers cannot control the possibility that there are external variables involved and influence the research in the research sample taken (Andrade, 2021). This is in accordance with Colliver et al. (2008), which state that a meta-analysis conducted on observational studies will invite more problems both in the methodology and statistical tools used because bias is more threatening in observational studies than in clinical trials.

The components of research statistics in the form of the number of samples, standard deviation and results of hypothesis testing are the basic things that must be present and displayed in every experimental research journal, but, in the field there are many journals article that do not include the statistics section. In fact, the researchers found that there were several journals whose statistical calculation tables were not displayed properly. Tables that should be one of the important information in the research report, omitted several important parts. The researcher also found many discrepancies in the contents of the journal with the research title, so even though the research title stated that there were several dependent variables studied, the contents did not show the results of statistical calculations of these variables. These findings make the data that can be processed to be less than it should be. As already stated, even though this meta-analysis research has limitations and weaknesses, however the results of this meta-analysis have showed that the cooperative learning model implemented in English learning has a strong effect on students than the conventional method.

CHAPTER V

CONCLUSION AND SUGGESTION

A. Conclusion

The findings of the analysis of the research that has been conducted by the researcher provide the following conclusions:

- Cooperative Learning accumulatively has a good effect size score, which is 1.15 and categorized as a strong effect. It shows that Cooperative Learning has a great impact on English Language Learning. This learning model is worth recommend to be applied in the English language class. Cooperative learning can be an alternative method rather than the traditional teaching and learning model.
- 2. All of the types of cooperative learning method analyzed in this research shows a good impact in English learning process and categorized as a strong effect, with an average effect size of 1.19. The average of effect size from the highest to the lowest is LT (Learning Together), TPS (Think-Pair-Share) CIRC (Cooperative Integrated Reading Comprehension), GI (Group Investigation), Jigsaw, NHT (Numbered Head Together), STAD (Students Team Achievement Division), TGT (Team Games Tournament)

- 3. Based on English skills, Cooperative Learning gives the highest average score in listening and followed by speaking, grammar, vocabulary, reading, and writing. The average effect size score based on English skills is 1.41 and categorized as strong effect.
- 4. The aspect of educational level in the analysis of the use of cooperative learning model is able to use in English language learning. The average of the size effect for the junior high school level is 1.26 and for senior high school is 1.03, which means that the two levels of education have a big impact which can be categorized as strong effect

B. Suggestion

The final result of this meta-analysis research on Cooperative Learning application in English language learning shows a positive result; even each grouping data gives a big average of effect size score. However, in conducting this research, there are a lot of deficiencies. Here, the researcher would like to offer some suggestions for the next researchers in the future, so there will be some improvement.

 Meta-analysis research should be carried out carefully and in detail to minimize data bias. The selection of research articles is also carried out carefully and the research data that is summarized must be complete so that the quality of the metaanalysis

- 2. Research samples should be taken from more journal sources published both online and offline. The more samples used in a study, the better the quality of the research compared to research using small samples.
- 3. The cooperative learning model is effectively used in the English teaching and learning process, but the teacher must adapt the material to the type of method and the availability of the facilities used so that the learning objectives can be achieved properly.

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APPENDICES

Appendix 1 Coding Data Sheet of The Sample and Effect Size Measuring

NT		G I		Learning In	tervention		Category
No ·	Research Identity	Sample Characteristics	Variable, Design, Instrument	Experiment Class	Control Class	Effect Size	of Effect Size
1	 Researchers' Name: Rizxi Amaliyah Research Title: The Effectiveness of Using Team Games Tournament (TGT) on Students Reading Comprehension on Descriptive Text Publication year: 2017 Institution: UIN Syarif Hidayatullah Jakarta Article code: CL1 	 Research Setting: SMPN 166 Jakarta Research Subject: 8th grade students Research Sample: VIII-4 (36 Students), VIII-5 (36 Students) 	 Independent Variable: Team Games Tournament Dependent Variable: Reading Comprehension Research Design: Quasi Experimental Hypothesis test: t-Test 	TGT	Conventional Method	$\overline{X}_E = 70.74$ $\overline{X}_K = 62.85$ $S_K = 16.48$ $\Delta = \frac{\overline{X}_{E-}\overline{X}_K}{S_k}$ $= 0.47$	Strong Effect
2	 Researchers' Name: Uswatun Hasanah Research Title: The Effect of Cooperative 	 Research Setting: SMKN 2 Kediri Research Subject: 10th Grade Students 	 Independent Variable: Group Investigation Dependent Variable: 	Group Investigation Method	Conventional Method	$\overline{X}_{E} = 72.46$ $\overline{X}_{K} = 60.84$ $S_{K} = 11.72$ $\Delta = \frac{\overline{X}_{E} - \overline{X}_{K}}{S_{k}}$	Strong Effect

	Group Investigation in Student's Reading Comprehension 3. Publication year: 2020 4. Institution: Universitas Islam Malang	3. Research Sample: X-B (20 students), X-C (20 students)	 Reading Comprehensio 3. Research Design: Quasi- Experimental 4. Hypothesis tes t-Test 	-		= 0.80	
3	 5. Article code: CL2 1. Researchers' Name: Zumrotul Ma'sumah 2. Research Title: The Influence of Student Team Achievement Division (STAD) Method in Reading Comprehension on Narrative Text 3. Publication year: 2016 4. Institution: UIN Walisongo Semarang 5. Article code: CL3 	 Research Setting: MA Darul Ulum Semarang Research Subject: 11th grade students Research Sample: XI-IPA (31 students), XI IPS (31 students) 	 Independent Variable: Students Team Achievement Divison (STA) Dependent Variable: Reading Comprehensio Research Design: Quasi- Experimental Hypothesis tes t-Test 	Method D) n	Conventional Method	$\overline{X}_E = 72.46$ $\overline{X}_K = 60.84$ $S_K = 11.72$ $\Delta = \frac{\overline{X}_{E-}\overline{X}_K}{S_k}$ $= 0.99$	Strong Effect

4	 Researchers' Name: Anita Putri Research Title: The effectiveness Using Student Team Achievement Division (STAD) Technique Towards Students' Understanding of the Simple Past Tense Publication year: 2014 Institution: UIN Syarif Hidayatullah Jakarta 	 Research Setting: SMP Trimulia Jakarta Selatan Research Subject: 8th grade students Research Sample: VIII-A (31 students), VIII-B (31 students) 	 Independent Variable: Student Team Achievement Division Dependent Variable: Grammar Research Design: Quasi- Experimental Hypothesis test: t-Test 	Student Team Achievement Division Method	Conventional Method	$\overline{X}_E = 72.46$ $\overline{X}_K = 60.84$ $S_K = 11.27$ $\Delta = \frac{\overline{X}_{E} - \overline{X}_K}{S_k}$ $= 1.03$	Strong Effect
5	 5. Article code: CL4 1. Researchers' Name: Chairina Nasir 2. Research Title: Group Investigation Technique for Better Reading 	 Research Setting: MTsN Meuraxa Banda Aceh Research Subject: 8th grade students Research Sample: VIII-1 (22 	 Independent Variable: Group Investigation Method Dependent Variable: Reading Comprehension 	Group Investigation Method	Conventional Method	$\overline{X}_E = 77.272$ $\overline{X}_K = 55.454$ $S_K = 13.726$ $\Delta = \frac{\overline{X}_{E-} \overline{X}_K}{S_k}$ $= 1.59$	Strong Effect

4.	Comprehension Skill Publication year: 2019 Institution: Universitas Syiah Kuala	Students). VIII-3 (22 students)	3.	Research Design: Quasi- Experimental Hypothesis test: t-Test				
6 1. 2. 3. 4.	Article code: CL5 Researchers' Name: Fithiawati Research Title: The Effectiveness of Number Head Together (NHT) Technique on Students' Reading Ability of Narrative Text Publication year: 2014 Institution: UIN Syarif Hidayatullah Jakarta Article code: CL6	 Research Setting: MTs Nur Asy- Syafi'iah Tanggerang Selatan Research Subject 8th grade students Research Sample 50 students of 8th grade 	: 2.	Independent Variable: Numbered Head Together Method Dependent Variable: Reading Comprehension Research Design: Quasi- Experimental Hypothesis test: t-test	Numbered Head Together Method	Conventional Method	$\overline{X}_E = 83.84$ $\overline{X}_K = 71.68$ $S_K = 10.96$ $\Delta = \frac{\overline{X}_{E-} \overline{X}_K}{S_k}$ $= 1.11$	Strong effect

7	1. Researchers'	1. Research Setting:	1.	Independent	Group	Speaking	$\overline{X}_E = 73.64$	Strong
	Name:	MTs Hasanuddin		Variable: Group	Investigation	Ability	$\overline{\mathbf{X}}_{K} = 67.40$	effect
	Muhammad	Teluk Betung		Investigation	Method		$S_K = 4.940$	
	Fathonni	Bandar Lampung		8			$O_K = 1.910$	
		Daniam Zumpang	2.	Dependent				
	2. Research Title:	2. Research Subject:		Variable:			$\Delta = \frac{\overline{X}_{E-} \overline{X}_{K}}{S_{k}}$	
	The Influence of	8 th grade students		Speaking			$-S_k$	
	Using Group	o grude students		Ability			= 1.21	
	Investigation	3. Research Sample:		ronney				
	Towards Students'	VIII-A (30	3.	Research				
	Speaking Ability	students), VIII-B	5.	Design: Quasi-				
	at the Second	(30 students)		Experimental				
	Semester of The		1	плреттепта				
	Eight Grade of		1	Hypothesis test:				
	MTs Hasanuddin		+.	t-test				
	Teluk Betung			1-10-51				
	Bandar Lampung							
	in 2015/2016							
	III 2013/2010							
	3. Publication year:							
	2016							
	2010		1					
	4. Institution: IAIN							
	Raden Intan		1					
	Bandar Lampung		1					
	Dundur Lampung		1					
	5. Article code: CL7		1					
8	1. Researchers'	1. Research Setting:	1.	Independent	Team Games	Conventional	$\overline{\mathbf{X}}_E = 82.44$	Strong
-	Name: Hery	MTsN 13 Jakarta		Variable: Team	Tournament	Method	$\overline{X}_{K} = 76.50$	Effect
	Fitriyanto			Games	Method		$S_K = 13.33$	
		2. Research Subject:		Tournament			$O_{\rm K} = 15.55$	
	2. Research Title:	8 th grade students		1 Sumunom				
	The Effectiveness	o grade stadents	1					
			1				I	

		of Team Games Tournament (TGT) Technique on Students' Mastery of Simple Past Tense	3.	Research Sample: VIII-A (30 students), VIII-B (30 students)	2. 3.	Dependent Variable: Grammar Mastery Research Design: Quasi-			$\Delta = \frac{\overline{\mathbf{x}}_{E-} \overline{\mathbf{x}}_{K}}{S_{k}}$ $= 0.38$	
		Publication year: 2014			1	Experimental				
		Institution: UIN Syarif Hidayatyllah Jakarta			4.	Hypothesis test: t-test				
	5.	Article code: CL8								
9	2.	Researchers' Name: Hermiati S Research Title: The Effectiveness		Research Setting: SMAN 3 Sidrap Research Subject: 11 th grade students	1.	Independent Variable: Think Pair Share method	Think Pair Share Method	Conventional Method	$\overline{X}_{K}^{L} = 57.50$ $S_{K} = 6.40$	Strong Effect
		of Think-Pair- Square (TPS) Strategy in Teaching Students'	3.	Research Sample: XI-IA 1 (28 students), XI-IA 2 (28 students)	2.	Dependent Variable: Listening Comprehension			$\Delta = \frac{\overline{\mathbf{x}_{E-}} \overline{\mathbf{x}_K}}{s_k}$ $= 2.90$	
		Listening Comprehension at the Second Grade in SMAN 3 Sidrap			3.	Research Design: Quasi- Experimental				
		Publication year: 2017			4.	Hypothesis test: t-test				

	4. Institution: UIN						
	4. Institution. Onv Alauddin						
	Makassar						
	5. Article code: CL9						~
10	1. Researchers'	1. Research Setting:	1. Independent	Jigsaw Method	Conventional	$\overline{\mathbf{X}}_E = 79.10$	Strong
	Name: Kharisma	SMAN 34 Jakarta	Variable: Jigsaw		Method	$\overline{\mathbf{X}}_{K} = 73.85$	effect
	Ragabuana		Method			$S_{K} = 9.89$	
		2. Research Subject:					
	2. Research Title:	11 th grade	2. Dependent			$\overline{\mathbf{X}}_{-}$ $\overline{\mathbf{X}}_{-}$	
	The Effectiveness	students	Variable:			$\Delta = \frac{\overline{\mathbf{X}}_{E-} \overline{\mathbf{X}}_{K}}{S_{k}}$	
	of Jigsaw		Reading			-	
	Technique in	3. Research Sample:	Comprehension			= 0.53	
	Learning Reading	XI-IPA 1 (40					
	of Exposition text	students) XI-IPA	3. Research				
	-	2 (40 students)	Design: Quasi-				
	3. Publication year:		Experimental				
	2014		1				
			4. Hypothesis test:				
	4. Institution: UIN		t-test				
	Syarif						
	Hidayatullah						
	Jakarta						
	Jukutu						
	5. Article code:						
	CL10						
11	1. Researchers'	1. Research Setting:	1. Independent	Student Team	Conventional	$\overline{X}_E = 73.96$	Strong
11	Name: Lihnawati	SMP Islam	Variable:	Achievement	Method	$\overline{\mathbf{X}}_E = 73.90$ $\overline{\mathbf{X}}_K = 64.74$	effect
	Sandewi	Ruhama Ciputat	Students Team	Division			cileet
	Sandewi	Kunama Ciputat	Achievement			$S_K = 10.78$	
	2. Research Title:	2. Research Subject:	Division				
	2. Research The: The Effectiveness		DIVISION			$\Lambda - \overline{X}_{E-} \overline{X}_{K}$	
		8 th grade students	2 Demandant			$\Delta = \frac{\overline{\mathbf{X}}_{E-} \overline{\mathbf{X}}_{K}}{S_{k}}$	
	of Student Team		2. Dependent			= 0.57	
	Achievement		Variable:			- 0.37	

	3.	Division (STAD) Technique on Students' Reading Comprehension Publication year: 2014	3.	Research Sample: VIII-1 (31 students), VIII-4 (31 students)		Reading Comprehension Research Design: Quasi- Experimantal Hypothesis test:				
		Institution: UIN Syarif Hidayatullah Jakarta Article code:				t-test				
12	1.	CL11 Researchers' Name: Muhammad Mas'ud MS Research Title: Teaching Adjective Clause by Using Group Investigation (GI)	2.	Research Setting: SMAN 1 Mamuju Research Subject: 11 th grade students Research Sample: XI-MIPA3 (34 students), XI-	1.	Independent Variable: Group Investigation Method Dependent Variable: Grammar Mastery	Group Investigation Method	Conventional Method	$\overline{X}_E = 87.50$ $\overline{X}_K = 51.25$ $S_K = 13.25$ $\Delta = \frac{\overline{X}_{E} - \overline{X}_K}{S_k}$ $= 2.73$	Strong Effect
	3.	to the Eleventh Grade of Exact Department Students of SMAN 1 Mamuju Publication year: 2017		MIPA4 (34 students)		Research Design: Quasi- Experimental Hypothesis test: t-test				

	 Institution: UIN Alauddin Makassar Article code: CL12 						
13	 Researchers' Name: Nurfaidah Leastari Research Title: The Use of Team Games Tournament (TGT) to Develop Students' Reading Skill at the First Grade of SMAN 4 Bone Publication year: 2017 Institution: UIN Alauddin Makassar 	 Research Setting: SMAN 4 Bone Research Subject: 10th grade students Research Sample: X-IIS2 (37 students), X-IIS3 (37 students) 	 Independent Variable: Team Games Tournament Dependent Variable: Reading Comprehension Research Design: Quasi- Experimental Hypothesis test: t-test 	Team Games Tournament Method	Conventional Method	$\overline{X}_E = 72.02$ $\overline{X}_K = 61.62$ $S_K = 12.02$ $\Delta = \frac{\overline{X}_{E-} \overline{X}_K}{S_k}$ $= 0.86$	Strong effect
14	 5. Article code: CL13 1. Researchers' Name: Renada Puji Ayu, Supiah, Zulfikri B. 	1. Research Setting: Bangka, Bangka Belitung Province	1. Independent Variable: Group	Group Investigation	Conventional Method	$\overline{\overline{X}}_E = 71.12$ $\overline{\overline{X}}_K = 70.4$ $S_K = 7.26$	Medium effect

	Doguon Atil	2 Descende Subject	Investigation			$\overline{\mathbf{v}}_{-}$ $\overline{\mathbf{v}}_{-}$	
	Rasuan, Atik	2. Research Subject:	Investigation			$\Delta = \frac{\overline{\mathbf{X}}_{E-} \overline{\mathbf{X}}_{K}}{S_{k}}$	
	Rahmaniyar	10 th grade Senior	Method				
		High School				= 0.10	
	2. Research Title:	students	2. Dependent				
	Using Group		Variable:				
	Investigation (GI)	3. Research Sample:	Writing Skill				
	Strategy to	50 students of					
	Improve Students'	senior high school	3. Research				
	Writing Skill	in Bangka	Design: Quasi-				
			Experimental				
	3. Publication year:						
	2022		4. Hypothesis test:				
			t-test				
	4. Institution: IAIN						
	Abdurrahman						
	Siddik Babel						
	5. Article code:						
	CL14						
15	1. Researchers'	1. Research Setting:	1. Independent	Cooperative	Conventional	$\overline{\mathbf{X}}_E = 76.94$	Strong
10	Name: Rismalia	SMPN 10 Kota	Variable:	Integrated	method	$\overline{X}_{K} = 57.21$	effect
	Nur Febriani	Tanggerang	Cooperative	Reading	methou	$S_K = 57.21$ $S_K = 13.304$	enteet
		Tunggorung	Integrated	Cimposition		$S_K = 15.504$	
	2. Research Title:	2. Research Subject:	Reading	method			
	The Effectiveness	8 th grade students	Composition	method		$\Delta = \frac{\overline{\mathbf{X}}_{E-} \overline{\mathbf{X}}_{K}}{S_{k}}$	
	of Cooperative	o grade students	Method			ΔS_k	
	-	3. Research	wiethou			= 1.48	
	Integrated Reading		2 Dependent			1.10	
	and Composition	Sample:VIII-8	2. Dependent Variable:				
	(CIRC) Technique	(38 students),					
	on Students'	VIII-10 (38	Reading				
	Reading	students)	Comprehension				
	Comprehension in						
	Descriptive Text						

	 Publication year: 2015 Institution: UIN Syarif Hidayatullah Jakarta 		4.	Research Design: Quasi- Experimental Hypothesis test: t-test				
	5. Article code: CL15							
16	 Researchers' Name: Siti Emma Rachmawati 	 Research Setting: MTs Sultan Hasanuddin Gowa 	1.	Independent Variable: Numbered Head Together	Numbered Head Together Method	Conventional Method	$\overline{X}_E = 78.64$ $\overline{X}_K = 59.72$ $S_K = 27.56$	Strong Effect
	2. Research Title: Teaching Vocabulary Through Cooperative Learning Method to the First Year Student of Islamic Boarding School of Sultan Hasanuddin Limbung-Gowa	 Research Subject: 7th grade students Research Sample: VII-E (25 students), VII-F (25 students) 	 2. 3. 4. 	Variable: Vocabulary Mastery			$\Delta = \frac{\overline{\mathbf{x}}_{E-} \overline{\mathbf{x}}_{K}}{S_{k}}$ $= 0.68$	
	3. Publication year: 2017							
	4. Institution: UIN Alauddin							

	Makassar						
	5. Article code: CL16						
17	 Researchers' Name: Sukma Research Title: Effectiveness of Group Investigation (GI) Model To Improve Students Vocabulary at The First Grade SMAN 1 Galeong Selatan Publication year: 2017 Institution: UIN Alauddin Makassar Article code: CL17 	 Research Setting: SMAN 1 Galeong Selatan Research Subject: 10th grade students Research Sample: X-PIA 1 (20 Students), X-PIA 2 (20 Students) 	 Independent Variable: Group Investigation method Dependent Variable: Vocabulary mastery Research Design: Quasi- Experimental Hypothesis test: t-test 	Group Investigation	Conventional method	$\overline{X}_E = 80.60$ $\overline{X}_K = 70.20$ $S_K = 13.05$ $\Delta = \frac{\overline{X}_{E-} \overline{X}_K}{S_k}$ $= 0.87$	Strong effect
18	 Researchers' Name: Taufik Rusandi Research Title: The Effectiveness 	 Research Setting: SMPN 3 Tanggerang Selatan 	1. Independent Variable: Jigsaw	Jigsaw Method	Speaking skill	$\overline{\overline{X}}_E = 72.73$ $\overline{\overline{X}}_K = 63.00$ $S_K = 5.202$	Strong effect

	of Using Jigsaw Technique in Teaching Speaking 3. Publication year: 2015	 Research Subject: 8th grade students Research Sample: VIII-8 (30 students), VIII-9 (30 students) 	 Dependent Variable: Speaking skill Research Design: Quasi- Experimental Hypothesis test: 			$\Delta = \frac{\overline{\mathbf{x}}_{E-} \overline{\mathbf{x}}_{K}}{S_{k}}$ $= 1.87$	
	 Institution: UIN Syarif Hidayatullah Jakarta Article code: CL18 		t-test				
19	 Researchers' Name: Ratna Sari Research Title: The Influence of 	1. Research Setting: SMAN 2 Kabupaten Tanggerang	1. Independent Variable: Think Pair Share Method	TPS Method	Conventional Method	$\overline{X}_E = 77.26$ $\overline{X}_K = 63.88$ $S_K = 7.33$	Strong effect
	Cooperative Learning (Think Pair Share Technique) in	 Research Subject: 10th grade students 	2. Dependent Variable: Writing			$\Delta = \frac{\overline{\mathbf{X}}_{E-} \overline{\mathbf{X}}_{K}}{S_{k}}$ $= 1.14$	
	Teaching Descriptive Writing	3. Research Sample: X-1 (34 students), X-5 (34 students)	3. Research Design: Quasi- Experimental				
	 Publication year: 2014 Institution: UIN Syarif 		4. Hypothesis test: t-test				

	Hidayatullah Jakarta 5. Article code: CL19						
20	1. Researchers' Name: Uu Dhia Uddin	1. Research Setting: MTs Al-Ishlah Cikarang	 Independent Variable: Small Group Discussion 	Small Group Discussion	Conventional Method	$\overline{X}_E = 77.00$ $\overline{X}_K = 62.00$ $S_K = 8.037$	Strong Effect
	 Research Title: Teaching Vocabulary of Adjective by Using Cooperative Learning Method to Junior Highschool 	 Research Subject: 8th grade students Research Sample: 8-A (20 students), 8-B (20 students) 	 Dependent Variable: Vocabulary mastery Research Design: Quasi- Experimental 			$\Delta = \frac{\overline{\mathbf{x}}_{E-} \overline{\mathbf{x}}_{K}}{S_{k}}$ $= 1.86$	
	3. Publication year: 2014		 4. Hypothesis test: t-test 				
	 Institution: UIN Syarif Hidayatullah 						
	5. Article code: CL20						

		Mo	oderator Variable			
No.	Article Code	Cooperative Learning Method	Dependent Variable	School Level	Effect Size	Category
1	CL2		Reading Comprehension	Junior High school	0.80	Strong Effect
2	CL5		Reading Comprehension	Junior High School	1.59	Strong Effect
3	CL7	Group	Speaking Skill	Senior High School	1.21	Strong Effect
4	CL12	Group Investigation Method	Grammar Comprehension	Senior High School	2.73	Strong Effect
5	CL14		Writing Skill	Senior High School	0.10	Medium Effect
6	CL17		Vocabulary Mastery	Senior High School	0.87	Strong Effect
7	CL3	Students Team Achievement	Reading Comprehension	Senior High School	0.99	Strong Effect
8	CL4	Division Method	Grammar Comprehension	Senior High school	1.03	Strong Effect

Appendix 2 Result of Effect-Size of the Use of Cooperative Learning Accumulatively

9	CL11		Reading Comprehension	Junior High School	0.57	Strong Effect
10	CL1	Team Games	Reading comprehension	Junior High school	0.47	Strong Effect
11	CL8	Tournament Method	Grammar Comprehension	Junior High School	0.38	Strong Effect
12	CL13	Wellou	Reading Comprehension	Junior High school	0.86	Strong Effect
13	CL6	Numbered Head Together	Reading Comprehension	Junior High school	1.11	Strong Effect
14	CL16	Method	Vocabulary Mastery	Junior High school	0.68	Strong Effect
15	CL9	Think Pair	Listening Comprehension	Junior High school	2.90	Strong Effect
16	CL19	Share Method	Writing Skill Comprehension	Senior Highschool	1.14	Strong Effect
17	CL10	Jigsaw Method	Reading Comprehension	Senior High School	0.53	Strong Effect
18	CL18		Speaking Skill Comprehension	Junior Highschool	1.87	Strong Effect
19	CL15	Cooperative Integrated Reading and Composition Method	Reading Comprehension	Junior High school	1.48	Strong Effect

20	CL20	Learning Together Method	Vocabulary Mastery	Junior High school	1.86	Strong Effect				
	Average of Effect-Size Score									
	Category									

Appendix 3
Articles Data Sheet of Cooperative Learning Model

No.	Research Title	Author/s	Year Publish ed	Institustion	Journal's Name	Accreditation	Source
1	The Application of Experimental Cooperative Models in English Learning About Greeting Class VII B Mts Al-Ishlah Bobos Cirebon Regency	Apipudin	2021	Insania Publishing	Action Research Journal Indonesia e-ISSN: <u>2775-0787</u> p-ISSN: <u>2774-9290</u>	GARUDA INDEXED	http://arji.insaniapu blishing.com/index. php/arji
2	Group Investigation': A Cooperative Learning Method for the 10th Grade Students in Speaking English Classroom	<u>Finaty</u> <u>Ahsanah</u>	2015	Universitas Muhammad iyah Surabaya	Teaching of English Language Literature Journal e-ISSN: 2338-8927 p-ISSN: 2657-2443	GARUDA INDEXED	http://journal.um- surabaya.ac.id/inde x.php/Tell/article/vi ew/311/238
3	Developing a Teaching Methodology of Translation Course : A Cooperative Learning Model for English Department Students	Fransisca Novitasar i, Priyatno Ardi	2017	Universitas Sanata Dharma	Indonesian Journal of English Language Studies e-ISSN: <u>2715-0895</u> p-ISSN: <u>2442-790X</u>	GARUDA INDEXED	https://e- journal.usd.ac.id/in dex.php/IJELS/artic le/view/352
4	The Use of Cooperative Learning to Improve Students Motivation at English Reading Class	Prosawita Ririh Kusumas ari	2018	Universitas Jendral Sudirman	Jurnal Ilmiah Lingua Idea e-ISSN: <u>2580-1066</u> p-ISSN: <u>2086-1877</u>	SINTA 3 GARUDA INDEXED	http://jos.unsoed.ac. id/index.php/jli/arti cle/view/573/786

5	The Implementation of The Cooperative Integrated Reading and Composition Technique to Increase Grade 8 Students' Active Learning in an English Class	Carollina Anggi Puspitasa ri	2018	Universtas Pelita Harapan	Polyglot: Jurnal Ilmiah	GARUDA INDEXED	https://ojs.uph.edu/i ndex.php/PJI/article /view/900/pdf
6	Students Perception in Learning English Using Cooperative Learning Activity	Irma Kharisma , Liza Andhani Hidayati	2018	IKIP Siliwangi	Project: Profesional Journal of English Education e–ISSN 2614-6258 p–ISSN 2614-6320	GARUDA INDEXED	https://journal.ikipsi liwangi.ac.id/index. php/project/article/ view/963
7	Cooperative Learning Strategy Trough Students' Critical Reading English Text Trough Team Games Tournament (TGT) and Jenga	<u>Fuzi</u> <u>Fauziyah,</u> <u>Siti Gina</u> <u>Meilani,</u> <u>Salsabila</u> <u>Salsabila</u>	2021	Universitas Suryakenca na	JOEPALLT: Journal of English Pedagogy, Linguistics, Literature, and Teaching e-ISSN 2338-3739 p-ISSN 2614-8099	GARUDA INDEXED	https://jurnal.unsur. ac.id/jeopallt/article /view/1236/1224
8	The Implementation Of Cooperative Learning Type Think-Pair Share In Overcoming Student's Anxiety In Speaking English At English Language Foundation	Malik Abdul Aziz, Nia Hoerniasi h, Maya Rahmaw ati	2021	Universitas Pahlawan	Jurnal Pendidikan Tambusai e-ISSN:2614-3097 p-ISSN:2614-6754	SINTA 5 GARUDA INDEXED	https://jptam.org/in dex.php/jptam/articl e/view/1461
9	Developing the English Grammar Module Based-Cooperative Learning to Teach Basic English	Arimulian i Ahmad	2018	Universitas Islam Riau	ELT-Lectura Studies and Perspective in English Language Teaching	GARUDA INDEXED	http://journal.unilak .ac.id/index.php/EL T-

	Grammar: Focus on Students' Needs				e-ISSN: 2548-608X p-ISSN : 1858-4209		Lectura/article/view /1586/1426
10	Cooperative Learning Trough Webquest as Internet-Based Learning Media	Nany Soengko no Madayan i	2015	IAIN Tulungagun g	Jurnal Bahasa Lingua Scientia e-ISSN: <u>2549-4228</u> p-ISSN: <u>2549-4228</u>	SINTA 4 GARUDA INDEXED	http://journal.unilak .ac.id/index.php/EL T- Lectura/article/view /1586/1426
11	Jigsaw Strategy for Cooperative Learning in an English Reading Class: Teacher's and Students' Beliefs	Yuliana Putri Susanti, Adaningg ar Septi Subekti2	2020	Universitas Kristen Duta Wacana	Pedagogy: Journal of English Language Teaching e-ISSN: p-ISSN:	GARUDA INDEXED	https://e- journal.metrouniv.a c.id/index.php/peda gogy/article/view/2 274
12	Improving Students' Motivation in Learning English Through Cooperative Learning Strategy by Using Media	Mandra Saragih, Ratih Utami	2020	Universitas Muhammad iyah Sumatra Utara	Globish (An English Indonesian journal for English, Education and Culture) e-ISSN: 2597-9132 p-ISSN: 2301-9913	GARUDA INDEXED	https://jurnal.umt.ac .id/index.php/globis h/article/view/2364
13	Teaching Reading Comprehension by Using Cooperative Learning Method to the Fourth Semester Students of English Education Study Program FKIP Universitas Muhammadiyah Palembang	Sri Yuliani	2016	Universitas Muhammad iyah Palembang	Journal of English Literacy Education e-ISSN: <u>2621-4512</u> p-ISSN: <u>2355-7486</u>	SINTA 5 GARUDA INDEXED	https://ejournal.unsr i.ac.id/index.php/je nglish/article/view/ 2970/1572
14	Improving Student Motivation and Learning Outcomes in English Subjects Through	Sarwitri	2022	SMKN 1 Cangkringa n, Sleman	Jurnal Pendidikan Tambusai e-ISSN:2614-3097 p-ISSN:2614-6754	SINTA 5 GARUDA INDEXED	https://jptam.org/in dex.php/jptam/articl e/view/3431

	Cooperative Teams Games Tournament						
15	The Relationship Between Jigsaw Cooperative Learning Method and Parents Attention With English Learning Achievement Student in Public Junior High School 4 Bogor	Ika Kartika, Saepudin	2018	Universitas Islam Attahiriyah Jakarta	English Language and Literature International Conference (ELLiC) e-ISSN: 2579-7263 p-ISSN: 2579-7549	GARUDA INDEXED	https://jurnal.unimu s.ac.id/index.php/E LLIC/article/view/3 486
16	Exploring Students' Cooperative Learning Combined with Silent WayTeaching Approach As Part of Learner-centered Methodology Using Communication Practice in Enabling the First-Year Degree Students at an IT university to acquire English Fundamental Grammar Knowledge	Rumonda ng Miranda Marsauli na	2014	Institut Teknologi Del	Proceedings of ISELT FBS Universitas Negeri Padang	GARUDA INDEXED	http://ejournal.unp. ac.id/index.php/selt /article/view/6728
17	Individual Accountabillity in Cooperative Learning : More Opportunities to Produce Spoken English	Puji Astuti Jayne C. Lammers	2017	Universitas Negeri Semarang, University of Rochester, New York	Indonesian Journal of Applied Linguistic e-ISSN: <u>2502-6747</u> p-ISSN: <u>2301-9468</u>	SINTA 1 GARUDA INDEXED	https://ejournal.upi. edu/index.php/IJAL /article/view/6878/4 690
18	Enhancing English Speaking Skill Trough Jigsaw Cooperative Learning	Khaessar Indra Perkasa, Emzir, dan	2018	Universitas Negeri Jakarta	BAHTERA: Jurnal Pendidikan Bahasa dan Sastra e-ISSN: 2540-8968 p-ISSN: 0853-2710	GARUDA INDEXED	http://journal.unj.ac .id/unj/index.php/ba htera/article/view/7 624

19	Using Cooperative Learning Model Snowball Throw to Improve Students English Learning Outcomes	Ratna Dewanti Lanlan Muhria, Iman Solahudi n	2021	STKIP Yasika Indonesia	ELT Echo : The Journal of English Language Teaching in Foreign Language Context e-ISSN: 2549-5089	GARUDA INDEXED	https://www.syekhn urjati.ac.id/jurnal/in dex.php/eltecho/arti cle/view/9226
20	Enhancing Learning Outcomes Descriptive Text Through Cooperative Learning	Kartino	2019	SMPN 2 Cirebon	p-ISSN: 2579-8170 Indonesian Journal of Educational Review e-ISSN: 2335-8407 p-ISSN: 2338-2019	GARUDA INDEXED	http://journal.unj.ac .id/unj/index.php/ij er/article/view/1468 7
21	Cooperative Integrated Reading and Composition (CIRC) Model Learning Plan in Improving English Reading Skill	Rifqi Zaeni Achmad Syam, Rosiana Nurwa Indah, R. Supyan Sauri, Farah Ruqayah	2020	Universitas Islam Nusantara	Lentera Pendidikan : Jurnal Ilmu Tarbiyah dan Keguruan e-ISSN: <u>2580-5223</u> p-ISSN: <u>1979-3472</u>	GARUDA INDEXED	https://journal.uin- alauddin.ac.id/inde x.php/lentera_pendi dikan/article/view/1 6288
22	Improving Students' Writing Ability and Motivation Using Cooperative and Collaborative Learning in Teaching Writing to English Department Students of Universitas Pamulang	Wiwit Sariasih	2019	Universitas Pamulanng	Lingua Didaktika: Jurnal Bahasa dan Pembelajaran Bahasa e-ISSN: 2541-0075 p-ISSN: 1979-0457	GARUDA INDEXED	http://ejournal.unp. ac.id/index.php/ling uadidaktika/article/ view/100527

23	The Implementation of cooperative learning in English class of favorite School of secondary high school 5 Batusangkar, West Sumatera	Muhamm ad Kristiawa n	2013	Universitas Negeri Padang	International Journal of Educational Administration and Policy Studies ISSN: 2141-6656	GARUDA INDEXED	https://eric.ed.gov/? id=EJ1084164
24	The Effectiveness of Student Team Achievement Division to Teach Writing Viewed From Students' Creativity	Annisa Rahmatik a	2019	Universitas Sebelas Maret	International Journal of Language Education e-ISSN: 2548-8465 p-ISSN: 2548-8465	SINTA 4 GARUDA INDEXED	https://ojs.unm.ac.i d/ijole/article/view/ 6786
25	Cooperative Script Method For Student's Islamic Economic Law on English Learning	Amrizal, Zohri Hamdani, Winda Putri Ardina	2020	STAIN Mandailing Natal	Indonesia Journal of Learning Education and Counseling e-ISSN: 2622-8076 p-ISSN: 2622-8068	GARUDA INDEXED	https://journal.ilinin stitute.com/index.p hp/IJoLEC/article/v iew/411
26	Developing Cooperative Learning Based Module for Teaching Reading to the Second Semester Students at English Department of FKIP-UIR	Safriyani Novitri	2017	Universitas Islam Riau	J-SHMIC: Journal of English for Academic e-ISSN: <u>2641-1446</u> p-ISSN: <u>2356-2404</u>	GARUDA INDEXED	https://journal.uir.a c.id/index.php/jshm ic/article/view/511
27	Developing Cooperative Learning Based E-Module to Teach Basic English of the First Semester of English Study Program Students at FKIP-UIR	Arimulia ni Ahmad	2017	Universitas Islam Riau	J-SHMIC: Journal of English for Academic e-ISSN: <u>2641-1446</u> p-ISSN: <u>2356-2404</u>	SINTA 4 GARUDA INDEXED	https://journal.uir.a c.id/index.php/jshm ic/article/view/536
28	Improving Student Learning Outcomes Of Class VIII A At SMP Negeri 5 Kendari (Junior High School) In English	Asni Isnawati	2020	SMPN 5 Kendari	Amanah: Jurnal Amanah Pendidikan dan Pengajaran e-ISSN: 2721-9739	GARUDA INDEXED	https://jurnal.pgrisu ltra.or.id/ojs/index. php/ja/article/view/ 17

	Learning Through NHT (Numbered Heads Together)Cooperative Learning Model				p-ISSN:-		
29	Efforts to Increase English Learning Achievement With the Application of the Learning Model Jigsaw Cooperative	Kadek Dwi Arlinayan ti, Ni Nyoman Sariyani, I Wayan Gara	2020	STIKES Buleleng, STKIP Agama Hindu Singaraja	International Journal of Language and Literature e-ISSN: <u>2549-4287</u> p-ISSN: <u>2579-5333</u>	SINTA 5 GARUDA INDEXED	https://ejournal.undi ksha.ac.id/index.ph p/IJLL/article/view/ 40884
30	Improving Students' Critical Thinking Ability : Cooperative Learning Strategy (A Case Study in English Study Program Brawijaya University)	Emy Sudarwat i, Yana Shanti Maniphu spika	2021	Universitas Brawijaya	ELTICS: English Language Teaching and English Linguictics Journal ISSN: 2407-0742	GARUDA INDEXED	https://mindamas- journals.com/educa re/article/view/781
31	The effect of cooperative group investigation in student's reading comprehension	Uswatun Hasanah	2020	Universitas Islam Malang	Journal of English Language Teaching and Learning ISSN: 2302-7819	GARUDA INDEXED	http://riset.unisma.a c.id/index.php/LAN G/article/view/5303
32	Group Investigation Technique for Better Reading Comprehension Skill	Chairina Nasir, Sofyan A. Gani, Dina Haqqini	2019	Universitas Syiah Kuala	Studies in English Language Education e-ISSN: 2461-0275 p-ISSN: 2355-2794	GARUDA INDEXED	http://jurnal.unsyiah .ac.id/SiELE/article /view/13619
33	Comparative Study: Enhancing Students' Reading Comprehension Ability through Ing Ngarsa Sung Tuladha and	Ezra Noviyant i	2019	Tiga Penuai Montessori Preschool	Acuity: Journal of English Language Pedagogy, Literature, and Culture	GARUDA INDEXED	https://jurnal.unai.e du/index.php/acuity /article/view/672

	Student Teams Achievement Division (STAD) Learning Models	Pandiang an			e-ISSN: <u>2541-0229</u> p-ISSN: <u>2541-0237</u>		
34	Using Group Investigation (GI) Strategy to Improve Students' Writing Skill	Renada Puji Ayu, Supiah, Zulfikri B. Rasuan, Atik Rahmani yar	2022	IAIN Syaikh Abdurrahma n Siddik Babel	EEdJ: English Education Journal ISSN: 2807-2065	SINTA 4 GARUDA INDEXED	https://jurnal.lp2ms asbabel.ac.id/index. php/EEdJ/article/do wnload/2523/1043

Appendix 4 Theses Data Sheet of Cooperative Learning Model

No.	Title	Researcher	Year Published	Institution	Research Object	Research Design	Source
1	The Effectiveness of Using Team Games Tournament (TGT) on Students Reading Comprehension on Descriptive Text	Rizxi Amaliyah	2017	UIN Syarif Hidayatullah Jakarta	8 th grade students' of SMPN 166 Jakarta	Quasi-Experimental	https://repository.uinjk t.ac.id/dspace/bitstrea m/123456789/33874/1 /%28Watermark%29 %20Rizxi%20Amaliy ah%20%28111201400 0024%29.pdf
2	Using Cooperative Learning Strategies to Improve Reading Comprehension of the Seventh Grade Students at SMPN 1 Borobudur in The Academic Year of 2012/2013	Aditya Pratama	2013	Universitas Negeri Yogyakarta	7 th grade students' of SMPN 1 Borobudur	Classroom Action Research	https://eprints.uny.ac.i d/20514/
3	Improving Students' Reading Comprehension of Narrative Text Using Jigsaw Technique	Ayu Arini	2013	UIN Syarif Hidayatullah Jakarta	8 th grade Students' of SMP Ash-sholihin Kebon Jeruk	Classroom Action Research	https://repository.uinjk t.ac.id/dspace/bitstrea m/123456789/31988/3 /IKRIMA%20HIKMA WATI%20- %20FITK.pdf
4	TheInfluenceofUsingGroupIvestigation(GI)MethodTowards	Nopriyani	2017	UIN Raden Intan Lampung	10 th gradeStudents'ofSMAN1BulokTanggamus	Quasi-Experimental	http://repository.radeni ntan.ac.id/2767/1/com binepdf_%282%29.pd f

	Students' Procedure Text Writing Ability at the First Semester of the Tenth Grade of SMAN 1 Bulok Tanggamus in 2016/2017 Academic Year						
5	ApplyingStudentsTeamAchievementDivision(STAD)Technique to ImproveStudents'ReadingComprehensioninDiscussion Text	Iin Afriyanti	2015	UIN Syarif Hidayatullah Jakarta	12 th grade students' of SMA Fatahilah Jakarta	Classroom Action Research	https://repository.uinjk t.ac.id/dspace/handle/1 23456789/26754
6	TheInfluenceofStudentTeamAchievementDivision(STAD)MethodinReadingComprehensiononNarrative Text	Zumrotul Ma'sumah	2016	UIN Walisongo Semarang	11 th grade students' of MA Darul Ulum Semarang	Experimental	http://eprints.walisong o.ac.id/6169/
7	The effectiveness Using Student Team Achievement Division (STAD) Technique Towards Students' Understanding of the Simple Past Tense	Anita Putri	2014	UIN Syarif Hidayatullah Jakarta	8 th grade students' of SMP Trimulia, Jakarta Selatan	Quasi-Experimental	https://repository.uinjk t.ac.id/dspace/bitstrea m/123456789/24622/3 /ANITA%20PUTRI- FITK.pdf

8	The Effectiveness of Number Head Together (NHT) Technique on Students' Reading Ability of Narrative Text	Fithiawati	2014	UIN Syarif Hidayatullah Jakarta	8 th grade students' of MTs. Nur Asy- Syafi'iah Rempoa, tanggerang Selatan	Quasi-Experimental	https://repository.uinjk t.ac.id/dspace/bitstrea m/123456789/25202/1 /FITHIAWATI- FITK.pdf
9	The Influence of Using Group Investigation Towards Students' Speaking Ability at the Second Semester of the Eighth Grade of MTs Hasanuddin Teluk Betung Bandar Lampung in 2015/2016 Academic Year	Muhammad Fathonni	2016	IAIN Raden Intan Lampung	8 th grade students' of MTs Hasanuddin Teluk Betung, Bandar Lampung	Quasi-Experimental	http://repository.radeni ntan.ac.id/2421/
10	The Effectiveness of Think-Pair-Square (TPS) Strategy in Teaching Students' Listening Comprehension at the Second Grade in SMAN 3 Sidrap	Hermiati S	2017	UIN Alauddin Makassar	11 th grade students' of SMAN Sidrap	Quasi-Experimental	http://repositori.uin- alauddin.ac.id/7462/1/ HERMIATI%20S.pdf
11	The Effectiveness of TeamGamesTournament (TGT) Techniqueon	Hery Fitriyanto	2014	UIN Syarif Hidayatullah Jakarta	8 th grade students' of MTsN 13 Jakarta	Quasi-Experimental	https://repository.uinjk t.ac.id/dspace/bitstrea m/123456789/25248/3

	Students' Mastery of Simple Past Tense						/HERY%20FITRIYA NTO-FITK.pdf
12	The Effectiveness of Jigsaw Technique in Learning Reading of Exposition text	Kharisma Ragabuana	2014	UIN Syarif Hidayatullah Jakarta	11 th grade students' of SMAN 34 Jakarta	Quasi-Experimental	https://repository.uinjk t.ac.id/dspace/bitstrea m/123456789/28778/1 /KHARISMA%20RA GABUANA-FITK.pdf
13	The Effectiveness of Student Team Achievement Division (STAD) Technique on Students' Reading Comprehension	Lihnawati Sandewi	2014	UIN Syarif Hidayatullah Jakarta	8 th grade students' of SMP Islam Ruhama Ciputat	Quasi-Experimental	https://repository.uinjk t.ac.id/dspace/handle/1 23456789/24834
14	Teaching Adjective Clause by Using Group Investigation (GI) to the Eleventh Grade of Exact Department Students of SMAN 1 Mamuju	Muhammad Mas'ud MS	2017	UIN Alauddin Makassar	11 th grade students of SMAN 1 Mamuju	Quasi-Experimental	http://repositori.uin- alauddin.ac.id/7427/
15	The Use of Team Games Tournament (TGT) to Develop Students' Reading Skill at the First Grade of SMAN 4 Bone	Nurfaidah Lestari	2017	UIN Alauddin Makassar	10 th grade students' of SMAN 4 Bone	Quasi-Experimental	https://repositori.uin- alauddin.ac.id/8544/
16	The Influence of Cooperative Learning (Think Pair Share	Ratna Sari	2014	UIN Syarif Hidayatullah Jakarta	10 th gradeStudentsofSMAN2	Quasi-Experimental	https://repository.uinjk t.ac.id/dspace/bitstrea

	Technique) in				Kabupaten		m/123456789/24895/1
	Teaching				Tanggerang		/Ratna%20Sari.pdf
17	The Effectiveness of Cooperative Integrated Reading and Composition (CIRC) Technique on Students' Reading Comprehension in Descriptive Text	Rismalia Nur Febriani	2015	UIN Syarif Hidayatullah Jakarta	8 th grade students' at SMPN 10 Kota Tanggerang Selatan	Quasi-Experimental	https://repository.uinjk t.ac.id/dspace/bitstrea m/123456789/44645/1 /RISMALIA%20NUR %20FEBRIANI- FITK.pdf
18	The Effect of Cooperative Integrated Reading and Composition (CIRC) and Self Esteem on Students Reading Comprehension	Sandiya Febriyanto	2019	UIN Syarif Hidayatullah	7 th grade students' of SMPN 3 Ciputat Timur	Quasi-Experimental	https://repository.uinjk t.ac.id/dspace/bitstrea m/123456789/46649/1 /SANIDAYA%20FEB RIANTO-FITK.pdf
19	Teaching Vocabulary Through Cooperative Learning Method to the First Year Student of Islamic Boarding School of Sultan Hasanuddin Limbung-Gowa	Siti Emma Rachmawaty	2017	UIN Alauddin Makassar	7 th grade students' of Islamic Boarding School Sultan Hasanuddin	Quasi-Experimental	https://repositori.uin- alauddin.ac.id/4508/
20	The Effectiveness of Group Investigation (GI) Model to Improve Students Vocabulary at the	Sukma	2017	UIN Alauddin Makassar	10thgradestudents'ofSMAN1Galesong Selatan	Quasi-Experimental	http://repositori.uin- alauddin.ac.id/4632/

	First Grade SMAN 1 Galesong Selatan						
21	The Effectiveness of Using Jigsaw Technique in Teaching Speaking	Taufik Rusandi	2015	UIN Syarif Hidayatullah Jakarta	8 th grade students of SMPN 3 Tanggerang Selatan	Quasi-Experimental	https://repository.uinjk t.ac.id/dspace/bitstrea m/123456789/30022/3 /TAUFIK%20RUSAN DI-FITK.pdf
22	Teaching Vocabulary of Adjective by Using Cooperative Learning Method to Junior Highschool	Uu Dhia Uddin	2014	UIN Syarif Hidayatullah Jakarta	8 th grade students' of MTs. Al-Ishlah Cikarang, Bekasi	Experimental	https://repository.uinjk t.ac.id/dspace/bitstrea m/123456789/24896/1 /Uu%20%20Dhia%20 %20Uddin.pdf

CURRICULUM VITAE

A. Personal Identity

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			Kab. Belitung Timur		
4.	HP	:	087772927010		
5.	E-mail		akbarmushawwir@gmail.com		

B. Educational Background

1.	SD Negeri 6 Manggar	(2006-2012)
2.	SMP Negeri 1 Manggar	(2012-2015)
3.	SMA Negeri 1 Manggar	(2015-2018)

Semarang, 19 December 2022

Mushawwir Akbar

1803046013