

**TEACHING NARRATIVE SHORT STORIES BY USING JIGSAW
TECHNIQUE TO IMPROVE STUDENTS' VOCABULARY ACHIEVEMENT**

(Undergraduate Thesis)

KATRINE TIRTA BENING

1953042004



**ENGLISH EDUCATION STUDY PROGRAM
DEPARTMENT OF LANGUAGE AND ARTS EDUCATION
FACULTY OF TEACHER TRAINING AND EDUCATION
UNIVERSITY OF LAMPUNG
2023**

ABSTRACT

TEACHING NARRATIVE SHORT STORIES BY USING JIGSAW TECHNIQUE TO IMPROVE STUDENTS' VOCABULARY ACHIEVEMENT

By

Katrine Tirta Bening

Vocabulary has an essential role in learning a language, especially in learning English as a foreign language that links four skills i.e., listening, speaking, reading, and writing, and all about words or particular sets of words. Therefore, the researcher conducted this research (1) to determine the significant improvement in students' vocabulary achievement after the students were taught using jigsaw technique and (2) to reveal the difficulties students faced in learning vocabulary using jigsaw technique. This research used quantitative and qualitative methods with 32 students of class X.2 at SMAN 7 Bandar Lampung. This research used a vocabulary test and interview. Pre-test and post-test are used to collect the data. The researcher used a Repeated Measures t-test. The result showed that the pre-test mean was 70.08 and the post-test mean was 83.20, while the t-value is 9.186 at the significant level is $0.000 < 0.05$. It means that learning English by using jigsaw technique gives a significant improvement. The researcher used an interview to find out the student's difficulties in learning vocabulary using jigsaw technique. The interpretation was used to make a description of the whole result after the implementation of jigsaw technique. It is revealed that the difficulties faced by students during the learning process were difficulties in understanding the meaning due to lack of English vocabulary. However, it is concluded that jigsaw technique effectively improved the students' vocabulary.

Keywords: vocabulary, jigsaw, narrative text.

**TEACHING NARRATIVE SHORT STORIES BY USING JIGSAW
TECHNIQUE TO IMPROVE STUDENTS' VOCABULARY ACHIEVEMENT**

By

KATRINE TIRTA BENING

Undergraduate Thesis

**Submitted in a Partial Fulfillment of
The Requirements for S-1 Degree**

In

**The Language and Arts Education Department
Faculty of Teacher Training and Education**



**FACULTY OF TEACHER TRAINING AND EDUCATION
UNIVERSITY OF LAMPUNG
BANDAR LAMPUNG
2023**

Research Title : **TEACHING NARRATIVE SHORT STORIES BY
USING JIGSAW TECHNIQUE TO IMPROVE
STUDENTS' VOCABULARY ACHIEVEMENT**

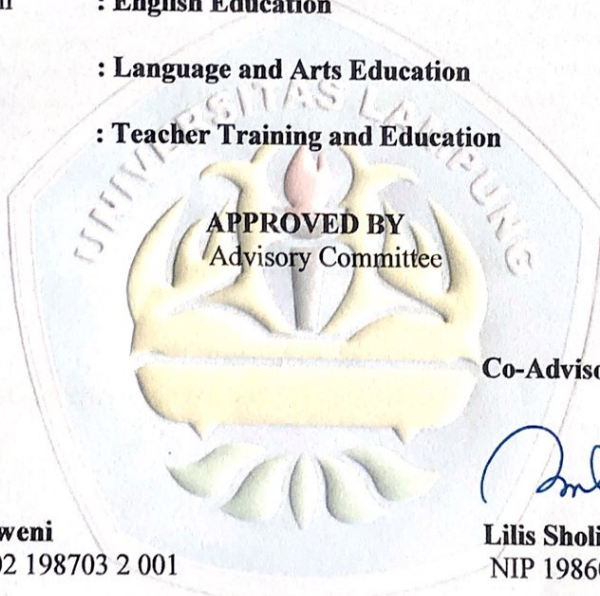
Students' Name : **Katrine Tirta Bening**

Students' Number : **1953042004**

Study Program : **English Education**

Department : **Language and Arts Education**

Faculty : **Teacher Training and Education**



Advisor

Dr. Ari Nurweni
NIP 19630302 198703 2 001

Co-Advisor

Lilis Sholihah, S.Pd., M.Pd.
NIP 19860505 201903 2 022

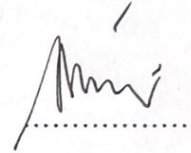
The Chairperson of
The Department of Language and Arts Education

Dr. Sumarti, M.Hum.
NIP 19700318 199403 2 002

ADMITTED BY

1. Examination Committee

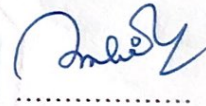
Chairperson : **Dr. Ari Nurweni, M.A.**



Examiner : **Dr. Muhammad Sukirlan, M.A.**



Secretary : **Lilis Sholihah, S.Pd., M.Pd.**



The Dean of Teacher Training and Education Faculty



Prof. Dr. Sunyono, M.Si.
NIP. 19651230 199111 1 001



Graduated on: **June 27th, 2023**

LEMBAR PERNYATAAN

Yang bertanda tangan dibawah ini, saya:

Nama : Katrine Tirta Bening
NPM : 1953042004
Program Studi : Pendidikan Bahasa Inggris
Jurusan : Pendidikan Bahasa dan Seni
Fakultas : Keguruan dan Ilmu Pendidikan
Judul Skripsi : Teaching Narrative Short Stories by Using Jigsaw Technique to Improve Students' Vocabulary Achievement

Menyatakan bahwa skripsi ini adalah karya saya sendiri. Sepanjang pengetahuan saya, karya ini tidak berisi materi yang ditulis orang lain, kecuali bagian-bagian tertentu yang saya ambil sebagai acuan. Apabila ternyata terbukti bahwa pernyataan ini tidak benar, sepenuhnya menjadi tanggungjawab saya.

Bandar Lampung, 13 Juli 2023

Yang membuat pernyataan,



Katrine Tirta Bening
Katrine Tirta Bening

NPM 1953042004

CURRICULUM VITAE

Katrine Tirta Bening was born in Bandar Lampung on September 6th, 2000. She is the second of two children of a kind-hearted couple, Mr. Gatot and Ny. Minarni.

She graduated from SD Fransiskus, SMP Fransiskus, and SMA YP Unila Bandar Lampung in 2019. Then, she continued her higher education in English Education Study Program at the University of Lampung in the same year. While studying at Lampung University, she joined RAKANILA (Radio Kampus Universitas Lampung) in 2020. Furthermore, she participated in the Indonesian Ministry of Education, Culture, Research, and Technology program, *Kampus Mengajar 2022*. She had the opportunity to teach and help develop school activities at SDN 3 Talang, Bandar Lampung, for five months. It was a memorable experience that she could spend her last year students as a teacher at SDN 3 Talang, Bandar Lampung.

DEDICATION

Primally, I would like to thank Allah for being able to complete this research successfully, my family especially my mom who always gives me support to finish this research, my lecturers for giving me immeasurable knowledge and advice to finish this research, my beloved friends in English Education 2019 University of Lampung, and also to myself.

MOTTO

“My Lord, I am truly great need of any good that You might send down to me”

(Al-Qasas:24)

ACKNOWLEDGEMENTS

Alhamdulillah Robbil Alamin. The writer expresses her highest gratitude to the almighty Allah SWT, who has given guidance, blessing, patience, and mercy to his in completing this research entitled “Teaching Narrative Short stories by Using Jigsaw Technique to Improve Students’ Vocabulary Achievement.” This work is presented to the Language and Arts Education Department of Teacher Training and Education Faculty of Lampung University as a partial fulfillment of the requirements for S-1 degree.

Having done this work, the writer realized that many individuals gave a generous suggestion for finishing this script; therefore, the writer would like to express her sincere gratitude and respect to:

- 1 Dr. Ari Nurweni, M.A., as the first advisor and academic advisor, for providing valuable input along with time, her thoughtful suggestion, supportive guidance, in-depth knowledge, and invaluable time to accomplish this research and also during the learning process.
- 2 Lilis Sholihah, S.Pd., M.Pd., as the second advisor who has given advice, kindness, and suggestion, and for her invaluable time completing this research.

- 3 Dr. Muhammad Sukirlan, M.A., as the examiner for his kindness, willingness to provide constructive suggestions and feedback, and helpful guidance, as well as for his precious time.
- 4 Dr. Feni Munifatullah, M.Hum., head of the English Language Education Study Program, always provides useful support and information to 2019 English Department students to complete our research.
- 5 All the outstanding lecturers and staff in English Department.
- 6 Effi Hindriani, S.Pd., as the English teacher at SMAN 7 Bandar Lampung, for the guidance and support during the research.
- 7 The most special place, my lovely family, for the unstoppable prayers and support with heartiness.
- 8 My lovely best friends, Deska, Dini, and Nurma, who always become a place to exchange stories, both happy and sad while accomplishing this research, patient in providing input, and helping in solving problems, thank you for crying, laughing, and fighting together to accomplish the research.
- 9 My lovely friends, Varra, Anas, and Sarah, who were doing the same research at SMAN 7 Bandar Lampung, who always helped and cooperated in conducting this research.
- 10 My seniors who have helped and provided advice in completing this research.
- 11 Dearest friends, seniors, juniors, and relatives who have assisted.

12 All of my friends from English Education 19 for the memorable stories that we had been through together, and anyone who cannot be mentioned who has contributed to finishing this research.

Finally, the writer believes that her work still needs to be improved. There might be weaknesses in this research. Therefore, comments and suggestions are always acceptable for better research. The writer hopes this research will positively contribute to educational development, readers, and those who want to conduct further research.

Bandar Lampung, Juli 2023

The writer,

Katrine Tirta Bening

TABLE OF CONTENTS

COVER	
ABSTRACT	ii
APPROVAL	iv
ADMISSION	v
LEMBAR PERNYATAAN	vi
CURRICULUM VITAE	vii
DEDICATION	viii
MOTTO	ix
ACKNOWLEDGEMENTS	x
TABLE OF CONTENTS	xiii
LIST OF TABLES	xvi
LIST OF GRAPHS	xvii
LIST OF APPENDICES	xviii
I. INTRODUCTION	1
1.1. Background of The Research	1
1.2. Formulation of The Problem	3
1.3. Objectives of The Research.....	4
1.4. Uses of The Research	4
1.5. Scope of The Research	4
1.6. Definition of Terms	4

II. LITERAURE REVIEW	6
2.1. Previous Studies	6
2.2. Definition of Vocabulary.....	8
2.3. Vocabulary Achievement	15
2.4. Teaching Vocabulary.....	15
2.5. Aspect of Vocabulary	16
2.6. Short stories	17
2.7. Cooperative Learning	20
2.8. Jigsaw Technique in Cooperative Learning	20
2.9. Procedure of Teaching Narrative Short stories by Using Jigsaw	21
2.10. Theoretical Assumption	22
2.11. Hypothesis	23
III. RESEARCH METHODOLOGY	24
3.1 Research Design	24
3.2 Population and Sample	25
3.3 Variables of The Research.....	25
3.4 Data Collecting Technique	26
3.5 Research Instrument	26
3.6 Research Procedure	27
3.7 Validity and Reliability	30
3.8 Level of Difficulty	33
3.9 Discrimination Power.....	34
3.10 Data Analysis.....	35
3.11 Data Treatment	36

IV. RESULT AND DISCUSSION	38
4.1 The Implementation of Jigsaw Technique in Teaching Vocabulary	38
4.1.1. The Result of the Try-Out Test	39
4.1.2. The Result of the Pre-Test.....	40
4.1.3. The Result of the Post-Test.....	42
4.1.4. The Differences in Students' Vocabulary Achievement.....	43
4.1.5. The Result of Hypothesis Testing	44
4.2 Students' difficulties in Learning Vocabulary by Using Jigsaw Technique	45
4.3 Discussion of The Findings	48
4.3.1 Discussion of Students' Vocabulary Achievement.....	48
4.3.2 Discussion of Students' Difficulties in Learning Narrative Short stories by Using Jigsaw Technique	50
 V. CONCLUSIONS AND SUGGESTIONS	 52
5.1 Conclusions	52
5.2 Suggestions.....	53
 REFERENCES.....	 54
APPENDICES	57

LIST OF TABLES

Table 2. 1 Eleven Types of Adjectives in English	12
Table 3. 2 Specification of the try-out test	27
Table 4. 3 Level of Difficulty of Try-Out Test	39
Table 4. 4 Discrimination Power of Try-Out Test	40
Table 4. 5 Distribution Frequency of Pre-Test Score	41
Table 4. 6 Distribution Frequency of Post-Test Score	42
Table 4. 7 The Differences of Students' Vocabulary Achievement on Pre-Test and Post-Test	43
Table 4. 8 Mean Scores of Pre-Test and Post-Test	45
Table 4. 9 The Differences in Students' Vocabulary Achievement	45

LIST OF GRAPHS

Graph 4. 1 Frequency of Students' Pre-Test Score.....	41
Graph 4. 2 Distribution Frequency of Students' Post-Test Score.....	42
Graph 4. 3 Students' Vocabulary Achievement in Pre-Test and Post-Test	44

LIST OF APPENDICES

Appendix 1 Lesson plan.....	58
Appendix 2 Vocabulary Test	76
Appendix 3 Reliability Analysis of Upper Try-Out Test.....	83
Appendix 4 Reliability Analysis of Lower Group Try-Out Test	84
Appendix 5 Reliability Analysis of Try-Out Test.....	85
Appendix 6 Reliability of The Half and Whole Try-Out Test	86
Appendix 7 Level of Difficulty and Discrimination Power of Try-Out Test	87
Appendix 8 The Results of Students' Pre-Test and Post-Test Scores	88
Appendix 9 Frequencies Table of Pre-Test.....	89
Appendix 10 Frequencies Table of Post-Test.....	89
Appendix 11 The Difference of Students' Vocabulary Achievement on Pre-Test and Post-Test.....	90
Appendix 12 T-Table	91
Appendix 13 Interview Script.....	92
Appendix 14 Students' Answer Sheet.....	98
Appendix 15 Documentation	100
Appendix 16 Surat Izin Penelitian	101
Appendix 17 Surat Balasan dari Sekolah.....	102

I. INTRODUCTION

In order to introduce this research, this chapter discusses some points including background, research questions, objectives of the research, uses of the research, scope of the research, and definition of terms.

1.1. Background of The Research

In various literature, vocabulary has an important role in learning a language, especially in English as a foreign language. Harmer (2001) argues that if language structures make up the skeleton of language, then vocabulary provides the vital organs and the flesh. It is believed that the more words we know, the more fluently we can communicate (Coady & Huckin, 1997).

It is generally accepted that vocabulary is considered in both communication and learning language. Vocabulary is one of the crucial skill needed for teaching and learning a foreign language (Pan & Xu, 2011). Without sufficient vocabulary, students cannot understand others or express their own ideas. Vocabulary is one element of language that link four skills such as reading, writing, listening, and speaking, and all about words or special set of words that are used for communication (Iheanacho, 1997; Coady & Huckin, 1997; Nation, 2001; Thornbury, 2002; Lessard, 2013; Ulfa, 2018; Cindy 2020). Vocabulary is the basic tool for students to use English effective (Tarina, 2020; Rahmawati, 2020). Moreover, with the lack of vocabulary it will be difficult to master English (Thornbury, 2002).

Vocabulary learning can be divided into receptive learning and productive learning. Receptive learning is the ability to recognize words and remember the meaning of the word. In contrast, productive learning is the ability to recognize words and remember the meaning of the word and is also used in the ability to speak or write at the right time (Nation, 1990). Vocabulary is about learning words, students are not only expected to know the word, but also they have to know the meaning of that word (Cameron, 2001) and how to pronounce that word because vocabulary is also important to develop students' oral abilities (Khan, Radzuan, Shahbaz, Ibrahim, & Mustafa, 2018).

In recent years, many studies have stated that vocabulary achievement can be done in many various ways in learning a language. Other than using a dictionary, using short stories are one of the ways to teach vocabulary in learning English vocabulary (Moestofa, 2018; Tarina, 2016; Rahman, 2020; Puspitasari, 2020; Rahmasiah, 2021). Short stories are a fiction literature (Klarer, 2004) that is considered as one of the literature genres that can be used in learning English vocabulary (Zahra & Farrah, 2016; Pratiwi, Putri, & Suhadi, 2020). Short stories are fun because basis of learning English which is covered in fairy tales (Ellis, 1991; Lazar, 1993 cited in Rahmasiah, 2021). Using short stories are also effective in improving students' vocabulary achievement in reading skill (Puspitasari, 2020), written and spoken discourse (Abdalrahman, 2022), and help students acquire four skills in learning language (Rahmasiah, 2021).

Moreover, a pra-survey was conducted in SMAN 7 Bandar Lampung. A narrative fiction short stories is used as material for learning English. But tenth students lack of vocabulary, especially in looking for the meaning of vocabulary. It is also the effect of a pandemic that makes students only do assignments and not get a good understanding of vocabulary. It is still found that they get bored easily and lose

their interest in studying English. They need something to interest their attention in vocabulary. So, the researcher takes one of the techniques which is appropriate in Senior High School. Jigsaw can be a technique to teach vocabulary to Senior High School students. By using the jigsaw technique, it is expected that the teacher will be able to motivate students to learn and pay attention to the material so that they will not get bored.

Jigsaw is one of the activities of cooperative techniques which can solve this problem. Slavin (1995) said that in Jigsaw, most working groups include a procedure whereby students share information they have gathered with group mates and, in many cases, with the class. Students are quizzed on all topics, and the quiz scores are averaged to form team scores. If the team is to succeed, team members must not only accomplish their subtasks but also do a good job of sharing information with their teammates.

Based on the explanation above, the researcher considers using the jigsaw technique as one of the techniques in teaching vocabulary. By using the jigsaw technique, the students work together in their groups, help their friends, and they can share the information with their friends.

1.2. Formulation of The Problem

This research refers to answer the following research questions:

1. Is there any significant improvement in students' vocabulary achievement after the students are taught narrative short stories by using jigsaw technique?
2. What difficulties do students face in learning vocabulary through jigsaw?

1.3. Objectives of The Research

Based on the research questions above, the objectives of this research is to find out whether there is an improvement in tenth grade students vocabulary achievement after being taught through a short stories and to find out what difficulties do students face in learning vocabulary through jigsaw.

1.4. Uses of The Research

There are theoretical and practical benefits that can be expected from the result of this research as follows:

1.4.1. Theoretically

The result of this research hopefully can be used to support the previous theories and give a contribution to the development of the theory of teaching vocabulary

1.4.2. Practically

The result of this research hopefully can be used as a reference for teachers, students, and further research as a piece of new information to increase and improve their performance in teaching-learning vocabulary.

1.5. Scope of The Research

The research subject is the first-grade of Senior High School students at SMAN 7 Bandar Lampung. The researcher used the pre-test and post-test to investigate whether there is a significant improvement in the student's vocabulary achievement after the students are taught a short stories using the jigsaw technique. This research focuses on the meaning, and it is limited to the content words such as nouns, verbs, adjectives, and adverbs. The short stories in this study is narrative fiction.

1.6. Definition of Terms

In order to specify the topic of the research, the researcher provides some terms related to the research. Here is the definition of terms mentioned previously:

1.6.1 Vocabulary

Vocabulary is a list or set of words for a particular language or words that individual language speakers might use (Hatch and Brown, 1995). According to Gutlohn (2006) vocabulary is the knowledge of words and word meanings. In this research, vocabulary is a crucial skill that needed in learning a language and the meaning of words.

1.6.2 Teaching Vocabulary

Teaching vocabulary is considered as one of the most discussed parts of teaching English as a foreign language (Susanto, 2017).

1.6.3 Short stories

Short stories is a literature fiction which is short than a novel (Klarer, 2004) and rich of resource for literacy and provide an abundance of linguistic resources for students that can be used in learning activities (Damayanti, 2017). In this research, a short stories refers to the narrative short stories that used at the tenth grade students' of SMAN 7 Bandar Lampung.

1.6.4 Achievement

Achievement is the expansion of potential skills or capacities possessed by a person, seen from the behaviour in the form of knowledge, skills, and motor abilities (Yulaika, 2016).

1.6.5 Jigsaw

Jigsaw is a model of cooperative learning where the students work in a small group consisting 4-6 students and work together in positive independence and responsible for the result of lessons they have to study and able to teach that material to the other group (Slavin, 2001).

II. LITERAURE REVIEW

This chapter discusses the literature review that is used in this study. It consists of the previous study, the definition of vocabulary, types of vocabulary, vocabulary achievement, teaching vocabulary, aspect of vocabulary, short stories, theoretical assumption, and hypothesis.

2.1.Previous Studies

There have been several studies dealing with teaching vocabulary through short stories that has been conducted by other researchers. More specifically, the previous studies would be further explained below:

In line with the previous study, Desi (2013) conducted her study on The Use of Jigsaw Technique in Improving Students' Achievement in Reading Recount Text. Her study was conducted to see the improvement toward the implementation of jigsaw technique in teaching recount text. And the result of her study, she found that there is significant improvement of students' reading score after being taught through jigsaw. Finding vocabulary was found increased 13.55%, Finding references was 12.5% increased and the last was finding inferences with 6.25% increased. There is also positive respond from the student toward jigsaw, it was found that more than half of the class agree that jigsaw is a good teaching technique.

Saini, et.al (2020) conducted the study on Using The Jigsaw Technique To Improve Student Reading Comprehension. This research aims to improve students' reading

comprehension in the narrative text by using jigsaw technique. The subject of this research was the eleventh grade of social class students at SMA Negeri 1 Modayag in academic year 2019-2020. The data used in this study was pre-test result, post-test, and observation sheet. The result of this study indicated that there was an increase in students in reading narrative texts. The average of the pre-test was 48%. The mean of the first cycle was 58%, it showed that the scores and the mean in the first cycle were better than pre-test. The percentage of students and the mean in the first cycle were better than pre-test. The percentage of students with 75 or more points increases. In the post-test of cycle 1, 14 students passed or got score up to 75. In the post-test of cycle 2, students who got 75 points or more were 22 (100%) and an increase was about 88%. In other words, students' reading comprehension in narrative texts increases.

Based on Indriani (2013) with her title of study *The Use of Jigsaw To Improve Vocabulary Mastery on The Seventh Grade Students of State Junior High School 2 of Prembun In The Academic Year 2012/2013*. After analyzing the data on the chapter IV and from the result of the research, it can be concluded that the data presented the significant of "jigsaw" method towards the students' vocabulary mastery. The jigsaw technique has a great role to increase the students' vocabulary mastery. It has provided by analyzing the data from pretest and post-test that was supported by vocabulary test. The mean score of the students who are taught by using jigsaw technique is 75.32. While, the mean of the students who are taught without jigsaw technique is 60. In analyzing t-test formula, it is obtained that the result of t-test is higher than t-table that is $5.797 > 2.000$. It means that the use of jigsaw technique improves the students' vocabulary skill on the seventh grade students of SMP N 2 Prembun in the academic year 2012/2013. And it is appropriate in teaching vocabulary.

Considering the previous research, there are several similarities and differences between researchers and other researchers. This study uses the jigsaw technique to

teach a narrative short stories to improve students' vocabulary achievement. In addition to finding out whether it improves students' vocabulary achievement, this study improves vocabulary achievement, which focuses on meaning as one of the aspects of vocabulary and is limited in the content words (nouns, verbs, adjectives, and adverbs).

2.2. Definition of Vocabulary

Vocabulary can be defined in many ways. There are some definitions of vocabulary. According to Pan & Xu (2011) vocabulary is the most important element in learning well a foreign language as one of three basic parts (phonetic, vocabulary, and grammar). Vocabulary helps the learners to use a language, including English, in the form of oral and written Language.

According to Kamil and Hiebert (2005) define vocabulary as the knowledge of words and words' meaning in both oral and print language and in productive and receptive forms. It means vocabulary is an important thing in learning a foreign language that includes all aspects of language skills to communicate well and understand the received and given information.

From the definition above, the researcher concludes that vocabulary is a support of the four skills in learning a foreign language and also grammar. Vocabulary is basic knowledge and has an important role in learning a foreign language. Understanding the vocabulary is the beginning to make it easy to understand and apply a foreign language, especially English in the world of education and communication.

2.2.1. Types of Vocabulary

Hatch and Brown (1995), indicate two kinds of vocabulary:

A. Receptive Vocabulary

Receptive vocabulary is the words that learners recognize and understand when used in context; however, they cannot produce it. It is vocabulary that learners recognize when reading text or listening to the text, but do not use it in speaking and writing (Webb, 2005) stated in Alqatahni (2015).

B. Productive Vocabulary

Productive vocabulary is the words that the learners understand and can pronounce correctly and use constructively in speaking and writing. Thus, productive vocabulary can be regarded as a process of active words because learners can generate words to express their thoughts and feelings which are understood by others (Webb, 2005 cited in Alqatahni, 2015).

2.2.2. Content Words

Vocabulary is all the words used in a language. Each word in English belongs to one of the eight parts of speech: noun, pronoun, verb, adverb, adjective, conjunction, preposition, and interjection. Each word in English is also either a *content word* or a *function word* (Nordquist, 2019) which will be scrutinized as the follows:

Content words are words that have meaning and give the most important information to understand a language. Content words are nouns, verbs, adjectives, and adverbs. Nouns, verbs, adjectives, and adverbs deliver important information required for understanding, respectively, clarified like the followings:

A. Noun

Noun identify name a person, place, or thing. According to Thomson and Martinet (1986), there are four kinds of nouns in English: Common nouns, Proper nouns, Abstract nouns, and Collective nouns.

(1) Common Nouns

Common noun is a noun that describes the name of a particular person, place, or thing. The examples are *girl, man, cat, chair, shoe, beach*, etc. as in sentence '*she sits in the chair*'.

(2) Proper Noun

Proper noun is a noun that consists of the name of a particular person, place, or thing. The first letter of proper noun begins with a capital letter, such as *France, Indonesia, Mrs. Katrine, Rosewood Road*, etc. as in sentence '*She lives in Indonesia*'.

(3) Abstract Noun

Abstract noun consists of the name of a quality, state, or action, e.g., *goodness, beauty, courage, fear, ability*, etc. as in the sentence '*she has the courage to speak in the stage*'.

(4) Collective Nouns

Collective nouns are the names of a group of people, objects, or animals, e.g., *crowd, flock, group, swarm, team, committee*, etc. as in the sentence '*a flock of birds are flying in the sky*'.

B. Verbs

In this category, verbs can be classified as shown below:

1. Lexical Verbs

A lexical verb is the main verb indicating the main action in a sentence. Lexical verbs—also called full verbs—convey the semantic or lexical meaning in a sentence (Nordquist, 2019). Lexical verbs can be grouped

according to three types: transitive and intransitive verbs, linking verbs, as well as regular and irregular verbs.

a. Transitive and Intransitive Verbs

A transitive lexical verb expresses action and needs a direct object to receive that action, e.g., “He *washes* the car,” clearly, *washes* is the lexical verb and is transitive, while *the car* is the direct object because it receives the action of the lexical verb *washes*. Intransitive verbs, by contrast, express action but do not affect a direct object. For example, in “a bird *flies*,” the word *flies* is the lexical verb, but it is intransitive because it does not require a direct object.

b. Linking Verbs

A linking verb is an important lexical verb (such as a form of being or seem) that joins the subject of a sentence to a word or phrase that tells something about the subject. For example, *is* functions as a linking verb in the sentence “they *are* unhappy.” Note that *to be* verbs such as *are* can also serve as auxiliary verbs depending on how the sentence is constructed.

c. Regular and Irregular Verbs

A *regular* verb is one that forms a sentence that follows the past tense and past participle, by adding the conjunctions *-d*, *-ed*, *-ing*, or *-s* to their base form to accept standardized suffixes. An *irregular* verb, meanwhile, does not follow the usual rules for verb forms. Some irregular verbs do not change ‘*put – put – put*’ while others change completely ‘*do – did – done*’.

In the sentence, “A man *buys* a book,” the main verb *buys* is a irregular verb. The past form of *buys* is *bought*; hence, in the past tense, the sentence would be, “A man *bought* a book.”

In comparison, an example of regular verbs in a sentence would be: “My sister *cooked* pasta in the kitchen.” The present tense of the first verb in the sentence is *cook*, but in the past tense, it is *cooked*.

2. Auxiliary Verbs

An auxiliary verb determines the tense, mood, voice, or aspect of another verb in a verb phrase. On the other hand, a helping verb comes before the main (lexical) verb in a sentence. In English, the auxiliary verbs are: *is, am, are, was, were, be, being, been, has, have, had, do, does, did, will, shall, would, should, ought, can, could, may, might, must*. As in the sentence “She *is* helping Alicia with her homework,” *is* serves as the auxiliary verb because it helps the lexical verb helping.

C. Adjectives

An adjective modifies a noun or pronoun by describing, limiting, or in some other way making meaning more nearly exact. From these four features of adjectives, they can be subdivided into eleven types (Khamying, 2007) stated in (Jitpranee, 2017) The following table demonstrates its specific types, functions, and examples.

Table 2. 1 Eleven Types of Adjectives in English (Khamying, 2007)

No.	Types	Functions	Examples
1.	Descriptive Adjective	To attribute or qualify people, animals, things, or places in order to describe its features	An <i>old</i> lady sitting next to me is my grandmother.
2.	Proper Adjective	To describes people, things, and places—a noun in terms of nationality.	I love <i>Indonesian</i> cultures.

3.	Quantitative Adjective	To modify noun for particular details in quantifying	There are <i>many</i> flowers in her house.
4.	Numeral Adjective	To modify noun for particular details in exact quantifying which is divided into three perspectives: cardinal number (exact quantity), ordinal number (hierarchical number), and multiplicative number (double number)	1) Cardinal Numeral Ex. My hand has five fingers. 2) Ordinal Numeral Ex. I am the seventh son of my family. 3) Multiplicative Ex. Some roses are double.
5.	Demonstrative Adjective (this, that, these, those)	To show the noun it modifies is singular or plural and whether the position of the noun is near or far from the person who is speaking or writing	<i>This</i> cake is very sweet.
6.	Interrogative Adjective	To modify noun used in an interrogative sentence	<i>What</i> is your favorite movie?
7.	Possessive Adjective	To express possession of a noun by someone or something	He borrows <i>her</i> book.
8.	Distributive Adjective	To modify a noun by dividing or separating into different parts	<i>Every</i> soldier is punctually in his place.
9.	Emphasizing Adjective	To modify a noun by using interjection words	This is not your <i>own</i> business
10.	Exclamatory Adjective	To modify a noun by using interjection words	<i>What</i> a lovely eyes!

11.	Relative Adjective	To modify a noun and combine sentences that are related between the first and second sentences	Give me <i>what</i> money you have.
-----	-----------------------	--	-------------------------------------

D. Adverbs

Harmer (2004) states that an adverb is a word (or group of words) that describes or adds to the meaning of a verb, an adjective, another adverb, or a whole sentence. It provides information about the way, place, time, frequency, certainty, or other activity circumstances represented by the verb. According to Thomson and Martinet (1986), the categorize of adverbs are:

(1) Adverb of manner

To tell how and how something happened, like *bravely, fast, happily, hard, quickly, well*. For example: “*He runs fast*”, “*She works hard*”.

(2) Adverb of place

To tell where something happened., like *by, down, here, near, there, up*. For example: “*I school is near the hospital*”, “*She will come there*”.

(3) Adverb of time

To tell when something happened, such as *now, soon, still, then, today, yet*. For example: “*I meet him today*”, “*A teacher asks the student to go home now*”.

(4) Adverb of frequency

To tell how often something is done or happens, such as *always, never, occasionally, often, twice*. For example: “*I never go to school late*”, “*He always looks at her*”.

(5) Adverb of degree

To tell the degree or extent to which something is done or happened, such as *fairly, hardly, rather, quite, too, very*. For example: “The tea is *too* hot”, “The house is *very* expensive”.

2.3. Vocabulary Achievement

As mentioned before, achievement is defined as the amount or level of learning that a student has required. Achievement represents performance outcomes that indicate the extent to which a person has accomplished specific goals that were the focus of activities in instructional environment, specifically in school, college, and university. It is supported by Huges (2003 cited in Wijayanti, 2016) says that achievement is related to the test that has done to discover how successful students have been in achieving the objective of a course.

In order to know the success of obtaining the student's vocabulary is by seeing how the students already achieve it through the process and treatment given. In this research, vocabulary achievement indicates the level or amount of vocabulary that the students have mastered after the treatment is given.

2.4. Teaching Vocabulary

Teaching vocabulary is not only a matter of allowing the students to know and then memorize a stock of words but also providing the students with the knowledge to comprehend and apply the words in a real context (Ismawati, Sutarsyah, & Nurweni, 2016). It is often assumed that when students do not learn new vocabulary words, they simply need to practice the word some more. Students can acquire vocabulary incidentally by engaging in rich oral-language experiences at home and at school, listening to books read aloud to them, and reading widely on their own. To develop

vocabulary intentionally, students should be explicitly taught both specific words and word-learning strategies (Gutlohn & Diamond, 2006).

It is necessary to teach vocabulary to increase students' knowledge about vocabulary in learning English as a foreign language. Teaching vocabulary needs a more teacher-entered and curriculum-structured approach to foster vocabulary and language growth. If education is going to have a serious "compensatory" function, we must do more to promote vocabulary (Biemiller & Andrew, 2001).

Based on the statement, teaching vocabulary is giving someone a knowledge about vocabulary to understand and have no difficulty in using it. The very first step in learning vocabulary is by deriving new words from some sources. In addition, vocabulary should be taught in the pronunciation of the vocabulary too, because most students sometimes have difficult pronounce the vocabulary. Therefore, guidance and repetition are needed so that students get used to it and easily pronounce it. Teachers must be creative in choosing materials and able to stimulate the students' interest to make them feel confident when they speak in the English language.

2.5. Aspect of Vocabulary

In learning vocabulary, there is some aspect that should be learned by the learners. According to Lado, stated in Khotimah (2014), the aspects of vocabulary that can be learned by the learners are as follows:

(1) Meaning

In learning a foreign language, students should know the meaning of the word. Knowing the meaning of the word it will make easier for students to use it for written or oral communication.

(2) Spelling

Spelling is very important since it can help in the reading activities. It can tighten the connection between sound and letters. In learning English vocabulary, students can not spell the word well because there are some words that have different from what is written, for example the letter (I) is not always pronounced /I/.

(3) Pronunciation

Pronunciation is the what to words or letters, pronunciation is difficult to learn because there is no connection between word spelling and pronunciation. Some words have only one pronunciation and sometimes a word has two pronunciation or more than two pronunciations.

(4) Word classes

Word classes are categories of words such as nouns, verbs, adjectives, and prepositions.

(5) Word use

Word use refers to how a word, phrase, or concept is used in a language. Word use can also involve grammar and thus be the subject of in-depth examination.

Based on the above 5 aspects of vocabulary, the researcher focuses in the meaning.

2.6. Short stories

Short stories are prose fiction that tells an event, but the short stories are simpler and shorter than a novel. Short stories surface in the comparative definition of other prose such as the novel or its shorter variants, the novella and novelette (Klarer, 2004). Short stories are a work of fiction usually written in prose and narrative format and are shorter in length than a novel (Nazara, 2019).

For enriching students' vocabulary, there are several kinds of teaching techniques provided by the teacher that will help for enriching students' vocabulary achievement. One of the teaching techniques that can improve students' motivation learning English as a foreign language is by using short stories. Short stories can be used to provide different activities for reading, listening, writing, and speaking classes. The results of Lao and Krashen's (2000) stated in Pardede (2010), study which compared the reading achievement between a group of students that read literary texts and a second group that read non-literary texts at a university in Hong Kong revealed that the group who read literary texts made better improvement in vocabulary and reading.

2.6.1 Teaching Vocabulary by Using Short stories

Due to lack of vocabulary there is a communication problem that people cannot express themselves in English, therefore most words need to be taught in teaching vocabulary. According to Tarina (2023) In teaching vocabulary by using short stories, story selection is indeed one of the most important roles of the teacher. Since the lengths of short-stories quite vary, choose a story short enough to handle within course hours. The shortness of the text is important for the students because they will see that they can read, and it will give the students a feeling of achievement and self-confidence. Consequently, teachers must be able to choose the right short stories to teach related to the material. If the text is interesting, the student will be interested in learning.

Reading short stories are an important process of enhancing a learner's learning capacity and personal growth. Besides that, providing learners with a variety of texts that interest them can enhance their enjoyment in learning and acts as sufficient motivation to encourage learners to share their personal responses, help in developing learner's capability to use English and respond or give expression to real and imaginative experience in their daily life (Nazara, 2019).

2.6.2 Advantages and Disadvantages of Short stories

The advantages of using storytelling for vocabulary achievement (Ellis, 1991; Lazar, 1993 cited in Rahmasiah, 2021):

1. Short stories are motivating, and fun. It can be help to develop positive attitudes towards the foreign language, and language learning. They can create a desire to continue learning.
2. Short stories exercise the imagination. Children can become personally involved in a story as they identify the characters, and try to interpret the narrative, and illustrations. This imaginative experience helps them develop their own creativity,
3. Listening to stories in class is a shared social experience. Storytelling provokes a shared response of laughter, sadness, excitement, which not only enjoyable, but also build the students' confidence, and encourage social, and emotional development.
4. The basics of learning English are covered in fairy tales. In terms of learning basic language function, and structures, vocabulary, and language learning skills, learning English though fairy tales will the lay foundation for secondary school (Brewster, Ellis, Girard, 2003 cited in Rahmasiah, 2021).

Meanwhile, short stories also have disadvantages:

1. If there is mistake in choosing short stories, it will be difficult to understand the meaning.
2. The length of short stories must be considered, because student will get bored if the short stories is too long (Brewster, Ellis, Girard, 2003).

2.7. Cooperative Learning

According to Slavin (1995), cooperative learning is a variety of teaching method in which students work in small groups to get helps from one student to another in learning academic content. In cooperative classroom, students are expected to help each other, to discuss and argue with each other, to assess each other's current knowledge and fill in gaps in each other's understanding.

Cooperative learning model is one of the learning models that support contextual learning. Cooperative learning system can be defined as a system of work / study groups were structured. Cooperative learning is a successful teaching strategy in which small teams, each with students of different levels of ability, use a variety of learning activities to improve their understanding of a subject. Each member of a team is responsible not only for learning what is taught but also for helping teammates learn, thus creating an atmosphere of achievement. Cooperative learning is a learning strategy with a number of students as members of small groups of different ability levels. In completing the group assignment, each student member of the group must work together and help each other to understand the subject matter. In cooperative learning, learning is not yet finished when one of the friends in the group have not mastered the lesson material.

2.8. Jigsaw Technique in Cooperative Learning

Jigsaw is one of the activities in the cooperative learning. Slavin (1995) states that Jigsaw includes a procedure whereby students share information they have gathered with their group mates and with the other group mate in the class. Students are quizzed on all topics and the quiz scores are averaged to form team scores. So, if the team wants to be successful, the team members must not only accomplish their subtasks but also do a good job of sharing information with their teammates.

Jigsaw is a group work method for learning and participating in the following group learning activities.

1. Listening - Students must listen actively in order to learn the required material and be able to teach it to others in their original groups.
2. Speaking - Students will be responsible for taking the knowledge gained from one group and repeating it to new listeners in their original groups.
3. Cooperation - All members of a group are responsible for the success of others in the group.
4. Reflective thinking - To successfully complete the activity in the original group, there must be reflective thinking at several levels about what was learned in the expert group.
5. Creative thinking - Groups must devise new ways of approaching, teaching and presenting material.

(<http://www.jigsaw.org>)

2.9. Procedure of Teaching Narrative Short stories by Using Jigsaw

Teaching English vocabulary is an important area worthy of effort and investigation. Vocabulary is needed for expressing meaning and in using the receptive (listening and reading) and the productive (speaking and writing skills). Here is the procedure for teaching short stories by using jigsaw to improve students' vocabulary achievement.

(1) Pre-activity

In the pre-activity, the teacher comes to the classroom and does a greeting and then prays together with the students, after that the teacher checks the students' attendance list. Previous material is asked by the teacher; then, the teacher gives a question to students randomly regarding the material to be taught.

(2) While-activity

1. The teacher gives the introduction about the technique and the topic to be learned

2. The teacher divides the students into group consist of 5-6 member each group
3. The teacher divides the material or become sub topic then given to the members of group according to their skill to be discussed with the same expert from the other groups
4. After becoming an expert in sub-topic students back to their groups to give some important information and the sub-topic to their own group, so all the students mastering the topic
5. In the exercise sheet, the students are asked to write the unfamiliar vocabulary with the correct spelling
6. The students discuss the exercises together with the teacher and other groups

(Fauziah, 2013)

(3) Post-activity

In the post-activity, the students are asked to outline what they got from the while-activity. The teacher gives the evaluation to the students and give appreciations. The appreciation is given for the highest score from a group in the class

2.10. Theoretical Assumption

In line with the theories above, the researcher assumes that vocabulary is crucial to communicate or express their feeling to others in language learning especially in foreign language. Most students avoid learning English as they do not have sufficient vocabulary and do not know how to enhance their vocabulary. Therefore, there should be appropriate media, technic, or strategies for teaching vocabulary to improve vocabulary achievement easier. Narrative short stories can be used in this research as a material because short stories contain a part that makes students interested to read it.

Besides that, short stories are easy to read and contains so many vocabularies that can be remembered by students when they like the story. To make the students get easily to learn in English, the teacher should prepare the teaching technique. One of the teaching techniques that will be used is by using the jigsaw technique. By using this technique, jigsaw is an alternative way to teach English easily and effective. Jigsaw helps students learn cooperation as group members share responsibility for each other's learning by using critical thinking and social skills to complete an assignment.

2.11. Hypothesis

Based on the research questions, theories, and theoretical assumptions that have been discussed earlier, the researcher proposes the hypothesis as below:

1. There is a significant improvement in students' vocabulary achievement after the students are taught narrative short stories by using jigsaw technique.

III. RESEARCH METHODOLOGY

This chapter explains about research design, population and sample, variable, data collecting technique, research instrument, research procedure, data analysis, and hypothesis testing.

3.1 Research Design

This research used a quantitative method to see the improvement of students' vocabulary achievement. This research used a one-group pre-test and post-test design. The researcher chooses one class as the sample of this research. The researcher conducted to see whether there was a significant improvement in students' vocabulary achievement after the students were taught narrative short stories using the jigsaw. In this research, the pre-test was given to the students to measure their vocabulary achievement before the treatment, and the post-test was given after the treatment to find out whether there was an improvement in tenth-grade student vocabulary achievement after being taught narrative short stories by using the jigsaw to improve students' vocabulary achievement. The illustration of the research design is as follows:

T1 X T2

Notes:

T1 : Pre-test (Before treatment is given)

T2 : Post-test (After treatment is given)

X : Treatment (Teaching vocabulary through short stories)

(Setiyadi, 2018)

The researcher interviewed after the students had the treatment of learning vocabulary. Using the jigsaw technique, the researcher used interviews to know the student's difficulties in learning vocabulary.

3.2 Population and Sample

The population of this research is X class at SMAN 7 Bandar Lampung. The sample is X.2, with 32 students. The researcher took one class as the sample of this research. The technique sampling that was used in this study was a random sampling taken by the teacher.

3.3 Variables of The Research

There were two variables in this research. Those were the independent variable and dependent variables. In this research, the researcher focused on the independent and dependent variables.

3.3.1 Independent Variable

The independent variable is the variable that causes or changes the dependent variable. This variable affects another variable. Therefore, teaching narrative short stories through jigsaw is an independent variable.

3.3.2 Dependent Variable

According to Kaur (2013), the dependent variable is the variable that is affected by the independent variable. The dependent variable of this research is student's vocabulary achievement. Therefore, the students' vocabulary achievement is the dependent variable of this research.

3.4 Data Collecting Technique

This research used techniques of collecting quantitative data. The researcher applied two techniques of collecting data in this research: pre-test and post-test.

1) Pre-test

A pre-test was given before the treatment. It was used to measure students' vocabulary achievement first. The researcher gave the test on the vocabulary aspect based on short stories. The number of question tested consists of 40 items in multiple choices with four options (A, B, C, and D).

2) Post-test

A post-test was given after the treatment has done. The number of question tested consists of 40 items in multiple choices with four options (A, B, C, and D). The purpose of the post-test is to find out the result of the treatment to measure whether there is an improvement in the student's vocabulary achievement after the treatments.

3) Interview

The researcher interviewed after the treatments had been done. In this study, the researcher used a semi-structured interview, in which a list of questions was prepared and ensured the expert asked the English teacher at SMAN 7 Bandar Lampung.

3.5 Research Instrument

Instruments refer to the measuring tools that the researcher used to measure the variable items in the data collection process.

1) Vocabulary test

Vocabulary tests (pre-test and post-test) were used to find the answer to the first research question. Vocabulary tests used multiple-choice tests with fifty questions containing the content words. The vocabulary test aims to measure

the students' achievement of English vocabulary before and after the students are taught using the jigsaw technique.

Table 3. 2 Specification of the try-out test

No.	Content Words	Item Number	Total	Percent of Stage
1	Noun	12, 17, 22, 24, 25, 26, 27, 31, 32, 33, 42	11	22%
2	Verb	4, 7, 8, 16, 18, 19, 21, 34, 35, 37, 38, 40, 43, 49	14	28%
3	Adjective	1, 2, 5, 6, 9, 10, 11, 13, 20, 23, 28, 29, 36, 39, 41, 48, 50	17	34%
4	Adverb	3, 14, 15, 30, 44, 45, 46, 47	8	16%
Total			50	100%

2) Interview

The type of interview used in this research was a semi-structured interview. The researcher used a semi-structured interview in this research to answer the second research question. A semi-structured interview was a type of interview in which the researcher prepared a list of questions and the questions from the first advisor, known as the English teacher. The sample taken by using random sampling.

3.6 Research Procedure

In finding out whether there was an improvement in students' vocabulary achievement and what difficulties were faced by students in the process of learning vocabulary by using the jigsaw technique, the researcher conducted the research using the following steps:

1. Determining The Problem

This research originates from several problems that occurred in the teaching-learning process, teaching and learning English as a foreign language. Some

students need help understanding and producing English words due to their lack of vocabulary.

2. Determining The Population and The Sample

The students of first grade at SMAN 7, consisting of 32 students, are chosen as the population and the sample of this research.

3. Selecting The Instrument and Material

The researcher searched and modified the teaching materials from several internet sources, including students' English textbooks.

4. Trying-Out The instrument

The researcher carried out the try-out test to determine the quality of the test before being used to obtain the research data. The multiple-choice test consisted of 50 items related to the content words, which have four alternative options (A, B, C, and D). The try-out is administered for about 30 minutes.

5. Conducting The Pre-test

The pre-test was conducted before the treatment. The test was multiple choice with 40 items and four options (A, B, C, and D). The pre-test was administered for 30 minutes to determine the students' vocabulary achievement before the treatment.

6. Conducting The Treatment

The treatment was conducted after the pre-test. The teacher introduced the technique and the topic to be learned. The teacher divided the students into groups of 5-6 members, and each group called a home group. The students were given short stories by the teacher in each home group. Then, in the home

groups, the students were asked to divide the paragraph to each member in the home group.

In the expert group, the students were asked to know the contents of the paragraph, find nouns, adjectives, verbs, and adverbs from the paragraph, make a list of the unfamiliar words from the narrative short stories and categorize them into one of the content words, and identify the meaning of the unfamiliar words by reread the paragraph into Indonesian.

Each student returned to the home group after a discussion in the expert group. In the home group, each student returned to the home group and took turns giving information about the contents of the paragraph, the content words, and the meaning of the unfamiliar words to group members about the paragraphs they had mastered in the expert group. The students were asked to analyze the generic structure of the narrative text and find out the moral message that exists. After that, the students were asked to fill in the blank sentences with provided vocabulary on the worksheet.

7. Conducting The Post-test

The post-test was conducted after the students were given the treatment. This test was designed to know the increase in students' vocabulary achievement. After the treatment, the post-test was administered for about 30 minutes to determine the students' vocabulary achievement. The students were given a multiple-choice vocabulary test which consisted of 40 items with four options (A, B, C, and D).

8. Interview

The researcher interviewed after the treatment. It was aimed to determine the difficulties faced by the students in learning vocabulary by using the jigsaw technique.

3.7 Validity and Reliability

To ensure whether the instruments were eligible for use in this research, the researcher tested the validity and reliability of the instruments.

3.7.1 Validity

There are two basic types of validity: content and construct (Hatch & Farhadi, 1982). The two kinds of validity are analyzed to measure whether the test has good validity,

1. Content Validity

According to Setiyadi (2018), if the test has represented all the ideas of the material which would be measured, the test has fulfilled the content validity. To fulfill the content validity, the researcher considers the items or questions and analyses whether the test has represented the whole material that will be measured. The vocabulary test is made based on the Senior High School English curriculum.

2. Construct Validity

According to Setiyadi (2013), construct validity is needed for the test instrument, which has some indicators in measuring one aspect or construct. In a vocabulary test, the researcher takes some items that can be used to measure students' vocabulary achievement based on some criteria of vocabulary aspects. A test can be valid if the test items measure each aspect corresponding to the instruction's specific purpose. In this test, each item is designed based on the word classes of vocabulary. The test has fulfilled the construct validity if the questions or items measure vocabulary. In this

research, the researcher made the test items related to the type of vocabulary, i.e., content words—noun, verb, adjective, and adverb.

3.7.2 Reliability

Reliability to measure the coefficient of the reliability between the pre-test and post-test. Hatch and Farhadi (1982) mentioned that reliability refers to the extent to which the test is consistent in its score and indicates how accurate the test score was. Setiyadi (2018) said that reliability was a consistency of measurements or the extent to which a test could be trusted to produce a stable score, relatively unchanged even though it was tested in different situations. The research used the Split-Half method (odd-even), and the Pearson Product-Moment formula was used to measure the reliability coefficient between odd and even groups. The formula is as follows:

$$r_{xy} = \frac{N(\sum xy) - (\sum x)(\sum y)}{\sqrt{\{N\sum x^2 - (\sum x)^2\}\{N\sum y^2 - (\sum y)^2\}}}$$

Notes:

r_{xy} : reliability coefficient between odd and even number items

N : the number of samples

x : the odd number items

y : the even number items

$\sum x$: total score of odd number items

$\sum y$: total score of even number items

$\sum xy$: total score of odd and even number items

After the half-test reliability had been determined, the researcher used Spearman-Brown's Prophecy formula to determine the reliability of the whole test.

$$r_k = \frac{2r_{xy}}{1+r_{xy}}$$

Notes:

r_k : the reliability of the whole test

r_{xy} : the reliability of the half test

The criteria of reliability are as follows:

0.00-0.20 = very low

0.21-0.39 = low

0.40-0.59 = average

0.60-0.79 = high

0.80-1.00 = very high

(Hatch and Farhady, 1982)

Half Tryout Test Reliability:

$$r_{xy} = \frac{N(\sum xy) - (\sum x)(\sum y)}{\sqrt{\{N\sum x^2 - (\sum x)^2\}\{n\sum y^2 - (\sum y)^2\}}}$$

$$r_{xy} = \frac{32(9.271) - (493)(559)}{\sqrt{\{32(8.479) - (493)^2\}\{32(10.469) - (559)^2\}}}$$

$$r_{xy} = \frac{296.672 - 275.587}{\sqrt{\{271.328 - 243.049\}\{335.008 - 312.481\}}}$$

$$r_{xy} = \frac{21.085}{\sqrt{\{28.279\}\{22.527\}}}$$

$$r_{xy} = \frac{21.085}{\sqrt{637.041.033}}$$

$$r_{xy} = \frac{21.085}{25.240}$$

$$r_{xy} = \mathbf{0,83}$$

Whole Tryout Test Reliability:

$$r_k = \frac{2r_{xy}}{1+r_{xy}}$$

$$r_k = \frac{2(0,83)}{1+0,83}$$

$$r_k = \frac{1,66}{1,83}$$

$$r_k = \mathbf{0,90}$$

The result of this research found that the half try-out test reliability was 0.83; meanwhile, the reliability of the half test is the whole try-out test reliability was 0.90. It could be meant that the criteria of reliability were very high.

3.8 Level of Difficulty

The difficulty level was used to classify the test items into difficult and easy. The research used the following formula to see the difficulty of the test.

$$LD = \frac{U + L}{N}$$

The formula could be described as follows:

LD = level of difficulty

U = refers to the number of upper group students who answer correctly

L = refers to the number of lower group students who answer correctly

N = the total number of students in upper and lower groups

The criteria are as follows:

0.00-0.30 = Difficult

0.31-0.70 = Average

0.71-1.00 = Easy

(Heaton, 1975)

From the result of level of difficulty, it found that there were 27 items included in average criteria which is item number 1, 2, 5, 7, 9, 11, 12, 14, 17, 18, 20, 23, 26, 28, 31, 32, 34, 35, 36, 37, 38, 41, 43, 44, 45, 48, 49, 50, there were items number 3, 4, 6, 8, 10, 12, 13, 15, 16, 19, 21, 22, 24, 27, 42, 46, 47 included in easy criteria, and there were five items included in difficult criteria.

3.9 Discrimination Power

The discrimination power (DP) refers to the extent to which the item differentiates between high and low-level students on the test. In order to know the discrimination power of the test, the researcher used the following formula:

$$DP = \frac{U - L}{1/2 N}$$

Notes:

DP : discrimination power

U : the number of upper group students who answer correctly

L : the number of lower group students who answer correctly

N : the total number of students in upper and lower groups

The criteria are as follows:

DP: 0.00 - 0.19 = Poor

DP: 0.20 - 0.39	= Satisfactory
DP: 0.40 - 0.69	= Good
DP: 0.70 - 1.00	= Excellent
DP: - (Negative)	= Bad items, should be dropped

(Heaton, 1975)

Based on the discrimination power calculation, the researcher found that there were 10 items (item number 4, 12, 16, 23, 25, 31, 33, 38, 39, 40) dropped because some of the items had poor and bad criteria. It can be seen by the remark from the discrimination power. If the remark of discrimination power is poor and bad, the items should be dropped.

3.10 Data Analysis

In analyzing the data, the researcher used quantitative and qualitative approaches to answer each research question. The quantitative data were analyzed using the T-test in Statistical Package for Social Science or SPSS.

$$S = \frac{R}{N} \times 100$$

Notes:

- S : Score of the test
- R : Total of the right answer
- N : Total number of the items

The data were also analyzed using SPSS with the analysis of Repeated Measures T-Test to know whether there was a significant improvement in students' vocabulary achievement after the treatments. To analyze the data, the researcher needed to calculate the average and find the pre-test and post-test mean. The mean was calculated by applying the formula below:

$$\bar{X} = \frac{\sum x}{n}$$

Notes:

\bar{X} : average score / mean

$\sum x$: total score of students

n : the number of students

(Arikunto, 1997)

The results found that the mean of the pre-test was 70.08, and the post-test was 83.20. It can be seen that there was a gain in a score from the pre-test and the post-test in 32 students. The gain score between the pre-test and post-test was 13.1 or 22%. Moreover, to answer the second research question, the interview was applied to determine the student's difficulties in learning vocabulary using the jigsaw technique. The interpretation was used to make a description of the whole result after the implementation of the jigsaw technique.

3.11 Data Treatment

There were two treatments of the data in this research there were normality test and hypotheses test, as follows:

1. Normality Test

A normality test was used to determine if the data were normally distributed or not. The criteria of normal distribution are:

H₁: The data is not distributed normally. (The significant value is <0.05)

H₀: The data is distributed normally. (The significant value is >0.05)

The hypothesis is accepted if the result of the normality test is higher than 0.05 (sign > α). In this case, the researcher used the level of significance of 0.05.

After getting the data, the result of normality test can be seen as follows:

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
PRETEST	.106	32	.200 [*]	.947	31	.125
POSTTEST	.101	32	.200 [*]	.967	31	.442

The data shows the normality test for the pre-test and post test. The significant level of the pre-test is (0.125) and post test is 0.442. Since, the significance level of both tests is more than 0.05 ($0.125 > 0.05$ and $0.442 > 0.05$), it can be concluded that the data was normally distributed.

2. Hypothesis Testing

After collecting data in scores, the researcher determined whether the hypothesis was accepted or refused. The researcher analyzed the data using Paired Simple T-Test to investigate whether there is a significant improvement in tenth-grade students' vocabulary achievement after being taught short stories through jigsaw in the teaching-learning process. The hypothesis of this research is:

$$H_a = \text{Sig.} < 0.05$$

H_a : There is a significant improvement in students' vocabulary achievement after the students are taught narrative short stories using the jigsaw technique. For the level, significant 0.05, as the t-value is 9.186 and the t-table is 2.144, with a degree of freedom (df) = 31 ($9.186 > 2.144$); therefore, H_0 is rejected, and H_a is accepted. It means there is a significant improvement in tenth-grade students' vocabulary achievement after the students are taught narrative short stories using the jigsaw technique.

V. CONCLUSIONS AND SUGGESTIONS

In this chapter, the researcher draws some conclusions regarding the research results reported and discussed in the previous chapter. The researcher also provides suggestions for parties supporting the teaching and learning process.

5.1 Conclusions

The objectives of the research are to find out whether the teaching and learning process by using jigsaw technique can significantly affect students' vocabulary achievement and to find out the difficulties students face during the learning process. Based on the results and discussion described, the researcher concluded that jigsaw technique could improve students' vocabulary achievement after the students are taught by using jigsaw technique in learning vocabulary with sig. $0.000 < 0.05$.

After giving treatment, the researcher gave a post-test on improving students' vocabulary achievement and gave questions from the interview to know students' difficulties in learning English using jigsaw technique. Jigsaw technique is more effective because the students' post-test score is higher than the pre-test. The pre-test mean is 70.008, while the post-test mean is 83.20. The t-value is 9.186 with a degree of freedom (df) = 31 at the significant level is $0.000 < 0.05$. Therefore, H_0 is rejected, and H_a is accepted. It means there is an improvement in students' vocabulary achievement of the grade-tenth students of SMAN 7 Bandar Lampung.

Therefore, based on the results of the data analysis that has been collected, some students had difficulty in understanding the meaning and pronouncing the words. They also have problems in speaking English when they have to present the material to their

friends. Then, they found it difficult when they got the material obtained. They felt confused about the story text they got because they did not understand English. They lack vocabulary. Moreover, they also felt nervous when explaining the material to their friends using English because they were not good at pronouncing English words.

5.2 Suggestions

It is very useful to give the students a new experience in the teaching-learning process. There are many creative and innovative techniques to increase the student's skill or competence, especially in English.

1. Due to the significant improvement in students' vocabulary achievement after the students are taught narrative short stories using jigsaw technique, English teachers are suggested to use jigsaw technique to solve the problem in the learning process. This is because jigsaw technique is one of the cooperative learning activities that give a relaxed learning atmosphere, enjoyable teaching, and learning activities will help students receive the material more effectively and efficiently. Furthermore, learning by using this jigsaw technique, the students can take the opportunity to express their thoughts or opinions. Last but not least, this technique is highly recommended for low-level or high-level students in the class, as they can share their opinions on different topics.
2. To future researchers, particularly those who have the same problem and are interested in conducting jigsaw techniques in their research, it is suggested that they apply jigsaw technique in the same field or the teaching of other language skills. In this research, the narrative text was employed as the topic for the implementation of jigsaw technique. Further research can try to apply the jigsaw technique with another kind of texts.

REFERENCES

- Arikunto. (1997). *Prosedur Penelitian Suatu Pendekatan Praktek*. . Jakarta: Rineka Cipta.
- Aronson, E. (2011). *Cooperation In The Classroom; The Jigsaw Technique*. Amazon: Pinter & Martin; 3rd edition .
- Beck, I. L., McKeown, M. G., & Kucan, L. (2013). *Bringing Words to Life: Robust Vocabulary Instruction*. New York, London: The Guilford Press.
- Biemiller, & Andrew. (2001). Teaching Vocabulary: Early, Direct and Sequential. *American Educator*. Retrieved from <https://www.aft.org/periodical/american-educator/spring-2001/teaching-vocabulary>
- Cameron, L. (2001). *Teaching English to Young Learners*. UK: Cambridge University Press.
- Coady, J., & Huckin, T. (1997). *Second Language Vocabulary Acquisiton: A Rationale for Pedagogy*. UK: Cambrige University Press.
- Collie, J., & Slater, S. (2010). *Literature In The Language Classroom*. UK: Cambridge University Press.
- Damayanti, I. L. (2017). From Story Telling to Story Writing, The Implementation of Reading to Learn (R2L) Pedagogy to Teach English As A Foreign Language In Indonesia. *Indonesian Journal of Applied Linguistic*, VI.
- Ellis, G., & Denis Girard, J. B. (2002). *The Primary English Teacher's Guide*. Harlow: Penguin English.
- Gutlohn, & Diamond, L. (2006). *Teaching Vocabulary*. Reading Rockets : Gutlohn. Retrieved September 12, 2022
- Hatch, E. M., & Farhady, H. (1982). *Research design and statistics for applied linguistics*. Rowley: MA:Newbury House.
- Heaton, J. B. (1975). *Writing English language tests: a practical guide for teachers of English as a second for foreign language*. Virginia: Longman.
- Hielbert, E. H., & Kamil, M. L. (2005). *Teaching and Learning Vocabulary*. New York: Lawrence Erlbaum Associates.
- Indriani, F. (2013). The Use of Jigsaw To Improve Vocabulary Mastery On The Seventh Grade Students of State Junior High School 2 of Prembun in The

- Academic Year 2012/2013. *Indonesia OneSearch*, 24-27. Retrieved from <http://repository.umpwr.ac.id:8080/bitstream/handle/123456789/2945/092120135-Fauziah%20Indriani.pdf?sequence=1&isAllowed=y>
- Ismawati, L., Sutarsyah, C., & Nurweni, A. (2016). Teaching Vocabulary Using Storytelling. *Core*, 3-10. Retrieved from <https://core.ac.uk/download/pdf/291530519.pdf>
- Jitpranee, J. (2017). A Study of Adjective Types and Functions in Popular Science Articles. *International Journal of Linguistics*, 9. doi:10.5296/ijl.v9i2.1081
- Khotimah, K. (2014). The Effectiveness of Using Game. Retrieved from <https://123dok.com/document/y4xxwn0z-aspects-vocabulary-chapter-ii-khusnul-khotimah.html>
- Klarer, M. (2004). *An Introduction to Literary Studies* (2nd ed.). London: Routledge Taylor & Francis e-Library.
- Nation, I. (1990). *Teaching and Learning Vocabulary*. USA: Heinle & Heinle Publisher.
- Nation, I. S. (2001). *Learning Vocabulary in Another Language*. UK: Cambridge University Press.
- Nazara, P. (2019, Oktober). Learning Vocabularies Using Short stories at Primary School: Students' Perception. *Journal of English Teaching*, 5. doi:: <http://dx.doi.org/10.33541/jet.v5i3.1308>
- Nordquist, R. (2019, June 30). *A Guide to Lexical Verb*. Retrieved September 21, 2022, from <https://www.thoughtco.com/what-is-a-lexical-verb-1691228#toc-regular-and-irregular>
- Pan, Q., & Xu, R. (2011). Vocabulary Teaching in English Language Teaching. *Theory & Practice in Language Studies, Citeseer*.
- Pardede, P. (2011, February). Using Short Stories to Teach Language Skills. *Journal of English Teaching*, 1.
- Pratiwi, D. I., Putri, J., & Suhadi, A. (2020). Short stories As a Media for Motivating Students' Improvemnet in Reading. *Journal of English Education and Applied Linguistics*, 1-6. Retrieved 2022, from <http://www.researchgate.net>
- Puspitasari, C. (2020). Improving Students' Vocabulary Through Short stories at The Tenth Grade of SMAN 2 Palopo. Retrieved September 15, 2022, from

<http://repository.iainpalopo.ac.id/id/eprint/4206/1/CINDY%20PUSPITASARI.pdf>

- Rahmawati, N. M. (2020, September). The Implementation of Short stories in Enhancing Student's Vocabulary. *Jurnal Bahasa dan Sastra, XII*.
- Robert J. Marzano, J. A. (2011). *Vocabulary for the Common Core*. Bloomington: Solution Tree Press.
- Saini, F., Halimah, N., Saud, I. W., & Papatungan, R. A. (2020). Using The Jigsaw Technique To Improve Student Reading Comprehension. Retrieved from file:///C:/Users/User/Downloads/1498-4358-1-PB.pdf
- Schmitt, N. (2000). *Vocabulary in Language Teaching*. UK: Cambridge University Press.
- Setianingrum, D., Sukirlan, M., & Sudirman. (2013). *The Use of Jigsaw Technique In Improving Students' Vocabulary Achievement In Reading Recount Text*. Universitas Lampung. Retrieved from <https://media.neliti.com/media/publications/192311-EN-the-use-of-jigsaw-technique-in-improving.pdf>
- Slavin, R. E. (2001). In *Cooperative Learning: Teori, Riset dan Praktik* (N. Yusron, Trans., Cetakan ke-15 ed., p. 348). Bandung: Nusa Media.
- Suparmin. (2017). Pentingnya Kosakata Pada Ketrampilan Bahasa Inggris. *Widyasari Press*.
- Susanto, A. (2017). The Teaching of Vocabulary: A perspective. *Jurnal Kata: Penelitian Tentang Ilmu Bahasa Dan Sastra*. Retrieved September 13, 2022, from <http://103.111.125.15/index.php/kata/article/view/2136>
- Tarina, M. (2020, January). Developing Students' Vocabulary Thorough Short stories. *Ar Raniry Repository*, 10-20. Retrieved from <https://repository.ar-raniry.ac.id/id/eprint/15986/1/Mimi%20Tarina%20160203064%20FTK%20PBI%20082370251548.pdf>
- Thornbury, S. (2002). *How to Teach Vocabulary*. London: Longman.
- Wijayanti, S. (2016). *Improving The Students' Vocabulary Achievement by Using Pop-up Pictures at SMPN 1 Beji - Pasuruan*. Universitas Jember. Retrieved from <http://repository.unej.ac.id/handle/123456789/76450>
- Zahra, D. N., & Farrah, D. M. (2016). Using Short stories in the EFL Classroom. *IUG Journal of Humanities Research, 1(20)*, 11-24.