

THE EFFECT OF USING HERRINGBONE TECHNIQUE ON THE ELEVENTH GRADE STUDENTS' READING COMPREHENSION ACHIEVEMENT AT SMAN 1 PESANGGARAN

THESIS

Composed to fulfill one of the requirements to obtain S1 Degree at the English Education Program, Language and Arts Education Department The Faculty of Teacher Training and Education

Jember University

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DEDICATION

I proudly dedicate this thesis to:

- 1. My beloved parents, Gatot Suparno and Sugati.
- 2. My lovely sister, Intan Sari Nastiti.
- 3. All my teachers and lecturers from kindergarten to university.

MOTTO

"Read, read, read. Read everything -- trash, classics, good and bad, and see how they do it. Just like a carpenter who works as an apprentice and studies the master. Read! You will absorb it."

"William Faulkner"

"I read for my pleasure and that is the moment I learn the most."

"Margaret Atwood"

LETTER OF STATEMENT

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THE EFFECT OF USING HERRINGBONE TECHNIQUE ON

THE ELEVENTH GRADE STUDENTS' READING

COMPREHENSION ACHIEVEMENT AT

SMAN 1 PESANGGARAN

THESIS

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Jember, 2015

The Writer

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SUMMARY

The Effect of Using Herringbone Technique on the Eleventh Grade Students' Reading Comprehension Achievement at SMAN 1 Pesanggaran; Ratri Handayani, 100210401110; 2015; 47 pages; English Language Education Study Program, Language and Arts Department, The Faculty of Teacher Training and Education, Jember University.

Reading becomes an activity that cannot be separated from our daily live. As stated in Gillet ad Temple (1990:4), reading is the first of all language abilities. Reading is one of the important skills to be mastered in learning. It is a key to find new information either in social life or education areas. It means that reading can bring us information whether it is regarded to education areas or entertainment purpose as long as it can enhance new information to the reader. In order to gain new information from reading text, a students or reader must be able to comprehend reading text. Comprehension is necessary to get the main information from a text. That is why reading comprehension is important for students during teaching learning process. In order to make students interested in reading comprehension, the teacher should use an appropriate and interesting technique in teaching learning process. Interesting technique will make students more enthusiastic in learning reading comprehension so that the students will get better reading comprehension achievement.

One of the techniques that can be used is graphic organizer. McKnight (2010:1) states that graphic organizers are important and effective educational tools for organizing content and ideas and facilitating learner's comprehension of newly acquired information. It helps students internalize what they are learning. Herringbone Technique itself is a part of graphic organizers. It is proposed to help students comprehend written form/text. According to McKnight (2010:50), Herringbone Technique is used to establish supporting details for a main idea. The form of Herringbone Technique consists of boxes and line. The boxes are filled by 5WH1H which were the basic questions of any text. The function of the questions is

to know the specific and general information in every paragraph within the text. Meanwhile the line is used for writing the answer or information. Then, the main idea of the paragraph can be found by connecting all of the information state in the diagram or graphic. The use of Herringbone Technique gain students focus in comprehending the text. They become more enthusiastic because of the form of Herringbone Technique is new for them and make them want to know more. In addition, this technique will affect their reading comprehension achievement.

This research was a quasi-experimental research. The objective of the research was to know whether or not there was a significant effect of using Herringbone Technique on the eleventh grade students' reading comprehension achievement at SMAN 1 Pesanggaran. The area of this research was SMAN 1 Pesanggaran. This school was chosen purposively because the use of Herringbone Technique had never been applied in the teaching learning process on this school. The population of this research was the eleventh grade students of IPA class at SMAN 1 Pesanggaran. The research respondents of this research were chosen by using cluster random sampling by lottery since the population was homogeneous based on the students' previous score of reading comprehension. The total number of the respondents was 72 students. There were 36 students of IPA 4 as the experimental class and 36 students of IPA 5 as control class.

The data of this research were collected from students' previous score of reading test, interview, and documentation. The reading comprehension achievement test was collected from the post test score. Then, it was analysed statistically by using t-test formula to find the significant difference between the experimental and control class. The result of t-test formula analysis showed that the value of t-test was higher than t-table (2.44 > 1.995). It means that there was a significant effect of using Herringbone Technique on the eleventh grade students' reading comprehension achievement at SMAN 1 Pesanggaran.

CHAPTER 1. INTRODUCTION

This chapter presents some aspects dealing with the topic of the research. It is divided into five parts: the background of the research, the problem of the research, the objectives of the research, the significance of the research and the limitation of the research.

1.1 The Background of the Research

Language plays an important role as communication in our lives. There are so many languages in the world and one of them is English. English is used as an international language whether it is in oral form or in written form. English is also considered as the first international language which is used in all fields such as politics, technology, economy, formal conferences, industry, commerce, tourism, journalism and education (Udaini:2011). It means that English has some special places in every important aspect of communication and has been recognized by people in the world. This is in line with Crystal (2003:2) that "English is a global language". However every country treats status of English differently. Some countries consider English as their first language such as New Zealand, and some others consider it as their foreign language (EFL) for example Indonesia.

English is taught in Indonesia as a compulsory subject at High School Levels and it is considered as a foreign language. English has been introduced to the students since elementary level, at least at the fourth grade. This is in line with Institutional Level Curriculum (2006) stating that English subject is directed to develop language skills so that the graduates are able to communicate in English at a certain level of literacy. English it self has four language skills, covering listening, speaking, writing and reading. English subject is meant to develop students' ability in communicating and mastering English language skills. The

point in here is English as an important subject that needs to be mastered by the students in order to communicate orally and written by in English.

As mentioned before, English has four language skills that can be used. All of them are the key points not only to achieve English as a compulsory subject at school but also as a tool to communicate to other people by using global language. Between those four language skills, reading and listening are considered as receptive skill while writing and speaking are considered as productive skill.

Reading is one of the important skills to be mastered in learning English and it is considered as the basic skill to recognize the small part of language e.g. words, phrases and sentences. It is also an important gateway to personal development, and to social, economic and civic life (Holden, 2004:18). He also states that readers must be able to navigate different sources of knowledge, know where to go looking for what they need, and able to analyse, interpret and synthesise. That is why in EFL class, the purpose of reading is to get the main point or the main idea from the texts or author's intention and also to know how to mark certain information. In order to achieve that purpose, a teacher in Indonesia should choose an appropriate technique which can help EFL students comprehend the English reading texts easier.

Reading cannot be separated from comprehension because reading and comprehension is a package. By combining reading and comprehension, it will be easier for students to understand written texts and author's intention. In line with this, Roebl and Shiue (2013) state that reading comprehension skills allow us to read proficiently, to learn effectively and to conceptualize a text or reading materials. It means that, people/students who read a text while comprehend it will get a lot of benefits in gathering, learning and conceptualizing the information from the text. Another opinion says that a competent reader will quickly reject the irrelevant information and find what he is looking for and it is not enough to understand the gist of the text (Grellet, 1999:3). Thus, reading comprehension is

necessary. Moreover, students with a good reading ability will have good quality in comprehending a text.

Dealing with students' reading comprehension skill, a teacher should use some techniques and certain methods to achieve the reading comprehension skill. The role of the teacher is very important to find an appropriate technique that can help students activate, develop, organize and become aware of their prior knowledge to make prediction about the content of the text. One of the techniques that can be used in teaching reading is by using Graphic Organizer which is called Herringbone Technique. Graphic Organizers are important and effective educational tools for organizing content and ideas, and facilitating learners' comprehension of newly acquired information (McKnight, 2010:1). Herringbone technique itself is a technique which can represent the visual information and concept of teaching and learning process. That is why Herringbone Technique is proposed to help students comprehend written form/text. McKnight (2010:50) states that Herringbone Technique is used to establish supporting details for a main idea. In addition, Herringbone Technique helps students to understand the connection of supporting details and main idea. It can be said that Herringbone Technique can also help students in finding general and specific information of a text.

Some previous researches had been conducted related to Herringbone Technique. Mardiyani (2013) conducted a classroom action research entitled "Improving Students' Reading Comprehension on Narrative Text through Herringbone Technique". The finding showed that the students' reading comprehension improved as indicated by the improvement of the score 66 on the first cycle. On the second cycle, the students scored 76 and finally at the third cycle the students scored 85. The research also showed that the students could pass the standard or good level of reading mastery. The effectiveness of using Herringbone Techniques had been proven by the following research done by Anggraeni (2013) entitled "The Effectiveness of Herringbone Technique in

Teaching Reading Narrative Text: an Experimental Research at the Eighth Grade Students at SMP Negeri 1 Grobogan in The Academic Year of 2012/2013". Anggraeni conducted a research using Herringbone Technique in teaching the experimental group. Meanwhile, the control group was given Direct Instruction in the teaching and learning process.

From the research above, it was found that there was a significant effect of students' reading comprehension achievement after having treatment compared to the students who were taught reading comprehension without using Herringbone Technique. The result of t-test analysis showed that t-test was higher than t-table with significant level 5% (6,746>1,667). It could be concluded that there is a significant effect of teaching reading by using Herringbone Technique. Meanwhile the present research focused on the use of Herringbone Technique on the students' reading comprehension achievement. The experimental group was taught by using Herringbone Technique and the control group was taught by using Reading Aloud Technique. It also focuses in identifying general information and specific information. This is in line with McKnight (2010:50), who notes that Herringbone Technique is used to establish supporting details for a main idea.

Based on the informal interview with the eleventh grade English teacher at SMAN 1 Pesanggaran, the researcher found some informations. The teacher used a reading aloud technique in reading comprehension class. Papalia in Rivers (1987:75) defines reading aloud technique as a technique in which the teacher or student reads orally the text. In addition, he explains that the text may be read orally by the teacher while the students follow the text silently, read silently by the students, or read orally by the students after a silent reading, or after an oral reading by the teacher. The purpose of reading aloud is to know how good the students do in understanding the whole text while listening to their friend and how good they pronounce the words within the text. In this school, the English teacher usually asks the students to read the text after a silent reading.

Meanwhile, in the teaching and learning process, the teacher explained the material and gave the students some exercises individually or in a group. The narrative text which was given by the teacher consisted of three up to five paragraphs. The curriculum which is used in the school was 2006 Institutional Level Curriculum (*KTSP 2006*). The teacher used English Textbook entitled *Look Ahead*. Reading aloud technique was good enough in gaining students' attention. Unfortunately, this technique made the students struggle in finding main idea and supporting details because they had to read the text silently whilst listening to other student reading the text. In other words, the students could not get enough concentration in the teaching learning process when the teacher applied the reading aloud technique. The teacher also said that he never applied Herringbone Technique before. Therefore, it was very possible good to see whether Herringbone Technique was an effective technique to be applied in teaching reading comprehension, especially in finding general and specific information during the teaching learning process.

Based on the reason above, the researcher conducted an experimental research entitled "The Effect of Using Herringbone Technique on the Eleventh Grade Students' Reading Comprehension Achievement at SMA Negeri 1 Pesanggaran".

1.2 The Problem of the Research

Based on the background of the research, the problem investigated in this research was formulated as follow: "Is there any significant effect of using Herringbone Technique on the eleventh grade students' reading comprehension achievement at SMAN 1 Pesanggaran, Banyuwangi in academic year 2014/2015?"

1.3 The Objectives of the Research

Considering the problem of the research, the objective of the research was to know whether or not there is a significant effect of using Herringbone Technique on the eleventh grade students' reading comprehension achievement at SMAN 1 Pesanggaran, Banyuwangi in academic year 2014/2015.

1.4 The Significance of the Research

The results of this research were expected to give significant contributions to these following people.

1.4.1 The English Teacher

The result of this research was expected to be useful for the English teacher to teach reading comprehension by using Herringbone Technique as a teaching technique in order to give variation in the teaching learning process in reading comprehension.

1.4.2 The Students

The result of this research was expected to be useful for the students to make them interested in reading comprehension. Furthermore, they can experience a new learning technique in their reading comprehension by using Herringbone Technique.

1.4.3 The Future Researcher

The result of this research was expected to be useful for the future researchers who are interested in Herringbone Technique. It could be used as reference and source of information to conduct a further research in other school to develop the quality of teaching and learning process of reading comprehension. For example "Improving Students' Reading Comprehension Achievement by Using Herringbone Technique at Senior High School".

CHAPTER 2. LITERATURE REVIEW

This chapter discusses the theoretical concept of teaching reading by using Herringbone Technique covering reading comprehension, reading comprehension achievement, type of reading text, Herringbone Technique, the advantages and disadvantages of Herringbone Technique, the practice of teaching reading comprehension and it also presents the hypothesis of the research. Each part will be discussed in the following sections.

2.1 Reading Comprehension

Reading becomes an activity that cannot be separated in our daily lives. As stated in Gillet and Temple (1990:4), reading is the first of all language abilities. Reading is a key to find new information either in social life or education areas. Every person in the world can do reading everywhere, anytime in any situation. A person may read in order to gain some information or read for enjoyment. This in line with Patel and Jain (2008:114), who state that reading is not only a source of information and pleasure activity but also as a means of consolidating and extending one's knowledge of the language.

There are so many definitions of reading comprehension proposed by some experts. Snow (2002:xiii), defines the term reading comprehension as the process simultaneously extracting and constructing meaning through interaction and involvement with written language and it consists of three elements: the reader, the text and the activity or purpose of reading. In addition, Bos and Vaughn (1991:92) state that reading comprehension is a process of constructing meaning by integrating the information which is provided by the writer with the reader's prior knowledge. According to Graham and Hebert (2010:13), comprehending a

text involves actively creating meaning by building relationships among ideas in text, and between the text and one's knowledge, beliefs, and experiences. It means that, if the readers can combine the points above, they will comprehend a reading material easily.

Reading and written language are a whole package that cannot be separated. It is the same as reading and comprehension. Written language is a medium which is used to develop students' ability. Meanwhile comprehension is the final goal of reading to understand reading material dealing with the text to find general and specific information. In line with this Grellet (1996:3) notes that reading is a process to understand written text.

It can be inferred that reading comprehension is a unit or package which is made of the interaction of the reader, with reading material or written language, and the author in order to construct the meaning of the text.

2.2 Reading Comprehension Achievement

Reading comprehension achievement dealt with the students' result of reading activity in a test in the form of score. A reading achievement test is given in order to know the students' ability in comprehending a text. This is in line with Hughes (2003:13) that "Achievement tests are directly related to language courses, their purpose being to establish how successful individual students, groups of students, or the courses themselves have been achieving objectives". In conclusion, an achievement test is administered to know how successful the students have achieved objectives after joining teaching learning process of reading comprehension.

In order to know the students' reading comprehension achievement, reading test is administered. In relation with this, Langan (2011:642) confirms that reading comprehension questions help the students measure their understanding

of material. The questions involve several reading skill: comprehending vocabulary in context, recognizing a subject or topic, determining a thesis or main idea, identifying key supporting points, and making inferences. Those points are usually called as general information and specific information.

2.2.1 Identifying General Information

General information in this research dealt with the general ideas stated in a text as the main idea of each paragraph, the topic of a text and the title of the text. Wood (1996:189) notes that main idea is what most of a paragraph or longer section of material is about. It means that within main idea the reader can find the content or the topic of each paragraph that tells about the whole paragraph. She also notes that main idea is sometimes directly stated and sometimes it is not. The main idea is often stated in a topic sentence. According to Wong (1999:366) topic sentence is the sentence in a paragraph that states main idea and provides the information about the author's intention about the subject. In addition, McWhorter (1989:106) argues that there are some tips to find the main idea within a paragraph.

- 1. The first sentence of a paragraph. First, the writer states his/her main point and then explains it.
- 2. The last sentence of a paragraph. The writer leads up to the main point and then directly states it at the end.
- 3. The middle of a paragraph. The writer begins with the example or explanation, then states his/her main point and continues with the explanation.
- 4. The first and the last sentence. The writer states the main point at the beginning of a paragraph and again in the end.

The example of identifying general information:

Patty The Milkmaid

Patty the Milkmaid was going to market carrying her milk in a pail on her head. As she went along she began calculating what she would do with the money she would get for the milk. "I'll buy some fowls from Farmer Brown," said she, "And they will lay eggs each morning, which I will sell to the person's wife. With the money that I get from the sale of these eggs I'll buy myself a new dimity frock and a chip hat; and when I go to market, won't all the young men come up and speak to me! Polly Shaw will be that jealous; but I don't care. I shall just look at her and toss my head like this". As she spoke she tossed her head back, the pail fell of it and all the milk was split. So she had to go home and tell her mother what had occurred.

"Ah, my child," said the mother, "Do not count your chickens before they hatched".

(Taken from Progress: 98, an English Text book)

Question:

What is the main idea of the text?

- a. Patty was going to the market to sell milk.
- b. Patty daydreaming about her money from selling milk.
- c. Patty's mother was so upset to her.
- d. Patty bought some fowls from Farmer Brown.

Answer: b. Patty daydreaming about her money from selling milk.

2.2.2 Identifying Specific Information

Specific information dealt with the supporting detail in the paragraph or a text. Supporting details are used by authors or writer to make main ideas clear, interesting, and memorable (Wood, 1996:196). In addition, Wong (1999:366) states that supporting details provide additional information or explanation such as facts, examples, explanations, definitions and any other kind of details that develop or support main idea. Further, Elder (2007) notes there are two kinds of supporting details.

1. Major (primary) details: details which are essential for understanding the main idea completely.

2. Minor (secondary) details: less important details that explain other details.

Supporting details are easy to be found within a paragraph or a text because it is interesting and familiar to be read. This is the list of types of supporting detail to easily recognize supporting detail.

- 1. Example or specific instances or examples may be long brief, made up, or real. Examples are concrete and usually easy to understand, visualize, or relate what you know. They help make ideas clear, interesting, and easy to remember.
- 2. Comparisons show how one thing is like another.
- 3. Contrasts show how one thing differs from another. Comparisons and contrasts help you understand unique or unfamiliar qualities by comparing or contrasting them with the more familiar.
- 4. Statistics and other factual materials. Statistics and facts are believable. They also clarify.
- 5. Graphs condense a lot of information in a small space and allow you to see the relationship among data. Studying them carefully can make the points clearer and often more believable.
- 6. Quotations from authorities are usually used to prove and clarify a point.
- 7. Description is used to make ideas clear and memorable.
- 8. Definitions are used primarily to clarify ideas.

(Adapted from: Wood, 1996:196)

In this study, reading comprehension in finding specific information covered, how to identify certain word and certain sentence in a text. Word here means specific or certain word that appears in the text and it has meaning, synonym or antonym that can be mentioned during the exercise. Meanwhile, sentence means specific or certain sentence that support main idea and consists of factual information about a paragraph.

The example of identifying specific information:

The Hungry Mouse

A mouse was having a very bad time. She could find no food at all. She looked here and there, but there was no food, and she grew very thin. At last the mouse found a basket full of corn. There was a small hole in the basket, and she crept in. She could just get through the hole. Then she began to eat the corn.

.....

(Adapted from www.kidsgen.com)

Question: There was a small hole in the basket...(line 3)

What is the synonym of word **small**?

- a. big
- b. large
- c. tiny
- d. heavy

Answer: c. tiny

Question: What is the TRUE statement about paragraph 1?

- a. There was a big hole in the basket
- b. A mouse could find no food at all
- c. A mouse was having a good day
- d. There was a basketful of wheat

Answer: b. A mouse could find no food at all

2.3 Type of Reading Text

Based on Institutional Level Curriculum (*KTSP* 2006), learning English in Senior High School is essential in order to develop students' mastery of language skills. One of them is about how to comprehend or to understand a text contents. As mentioned at *KTSP* 2006, English subject has several text genres. They are procedure, descriptive, recount, narrative, report, news item, analytical

exposition, hortatory exposition, spoof, explanation, discussion, review, and public speaking. All of them are taught and divided into some levels. For eleventh grade students, they learn narrative, report, and analytical exposition for the odd semester. As for the even semester they learn narrative, spoof and hortatory exposition. Furthermore, narrative text was chosen in this research because it is taught in the two semesters. It is also the most popular text which is commonly read. The more explanation about narrative text will be presented as follow.

2.3.1 The Definition of Narrative Text

Narrative is a text which tells a story or sequence events and it will end with the problem-solving of the story. In line with this, Chatman (1993:8) defines that a narrative text tells a story. In other words, it presents a unified sequence of events that add up to something. Usually it also has moral value within the story. According to Rebecca in Teaching English 4 All, a narrative text is a text which relates a series of logically and chronologically related events that are caused or experienced by some factors.

Related to the statement above, narrative story is being popular universally and it is written far from natural (Knapp and Watkins, 2002:220). In addition, Buscemi (2002:341) states that narrative can be divided into two types: fiction and nonfiction. Further, Buscemi says that in fiction sometimes the story is based on real life experiences of the author's imagination and do not re-create exactly as they happened. Buscemi also confirms that, nonfiction stories are written to inform people about chronological events or developments of events to entertain them. In addition, Barr *et al.* in Syahputra (2013) states the main focus of narrative text is to tell a story, so the reader will be entertained. Richardson (1990:20) also confirms that narrative can be found everywhere. It presents in myth, fable, short story, epic, history, fairy tales, novels, etc. In conclusion,

narrative text is a popular text, consisting of imaginary or fiction story and nonfiction story. It is focused on entertaining or amusing the reader and gives moral value to the reader.

a. Generic Structure of Narrative Text

- Orientation: this paragraph consists of the beginning of the story, it discusses the opening characters, time, setting, and where the story took place.
- 2. Complication: this paragraph tells the problem of the story that appears before the characters.
- Resolution: this paragraph tells how the problem solved by the characters. Usually the moral values of the story come out at this paragraph.

b. Language Features of Narrative Text

1. Using simple past tense

Regular verb: walked, played, kicked, etc.

Irregular verb: ate, read, drank, etc.

2. Using action verbs

Example: ran, talked, hit, etc.

3. Using time conjunction and temporal circumstances

Example: before, suddenly, when, etc.

The example of narrative text entitled The Mouse Deer and The Crocodiles.

Once upon a time, there lived a Mouse Deer in the jungle. One day, the Mouse Deer saw Orientation fruits on the other side of the river. Mouse Deer wanted to cross the river. He wanted to eat the tasty fruits but there are many crocodiles in the river. The bridge was not available on the river. Mouse Deer was afraid that he would be eaten by the crocodiles if he crossed the river. Fortunately, he got a smart idea. He called out, Complication "Hey, Crocodiles! The king wants to know the number of the crocodiles in this river", cried he, "You must line up from this side of the river to the other side!" So, all of the crocodiles lined up in a row. Meanwhile the Mouse Deer counted them. He jumped from one to another crocodile and counted the number loudly, "One, two, three", Resolution up to the last crocodile. Finally, the Mouse Deer reached the other side of the river safely. The crocodiles felt angry because the Mouse Deer deceived them.

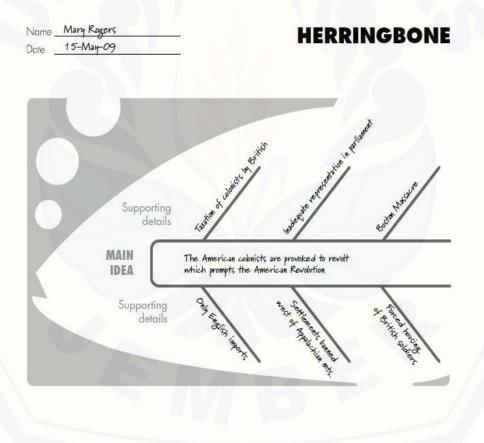
2.4 Herringbone Technique

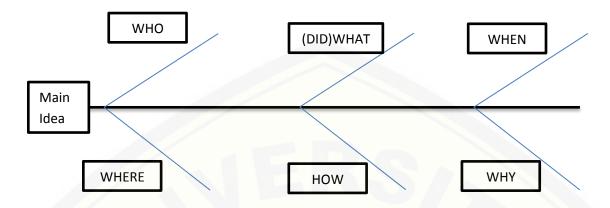
A special technique is certainly needed in teaching language skills. One of the various techniques usually used in the teaching learning process of reading comprehension is graphic organizer. Graphic organizers are important and effective educational tools for organizing content and ideas and facilitating learner's comprehension of newly acquired information (Mcknight, 2010:1). She also confirms that graphic organizers present material through the visual and spatial modalities (and reinforce what is taught in the classroom). The use of graphic organizers helps students internalize what they are learning. It means that graphic organizers help students retrieve information in detail with the help of graphic organizers.

(Adapted from: www.slideshare.net)

Herringbone Technique itself is a part of graphic organizers. This graphic organizer is used to establish supporting details for main idea. It can be used to organize information for all content areas (McKnight, 2010:50). In line with this, Deegan (2006) states that Herringbone Technique develops comprehension of the main idea by plotting *who*, *what*, *when*, *where*, *how*, and *why* questions on a visual diagram of a fish skeleton. It is called fish skeleton because this diagram or graphic exactly looks like a skeleton of herring fish. It helps students learn how to classify and organize information which refers to supporting details and main idea of a paragraph. It is very useful in comprehending a reading text.

McKnight's Herringbone Diagram (2010:50).





: The place where the main idea should be written

(Adapted from McKnight, 2010:50)

The form of Herringbone Technique that is used in this research adapted from McKnight (2010). McKnight's form of Herringbone Technique consists of single box that used for stating main idea and lines are used to put the supporting or specific information. In this study, the researcher decides to put some boxes in each line for stating general and specific information. Boxes make the information written neat and well-organized.

2.4.1 The Steps of Herringbone Technique

In order to use Herringbone Technique in teaching reading comprehension, there are some steps suggested by Deegan (2006).

- 1. The teacher selects a text at the appropriate reading level.
- 2. The teacher constructs a visual diagram of the Herringbone.
- 3. The teacher tells the students to record the answer to the question on the diagram, such as about *wh* questions.
- 4. The students read to find the answers and record the answers on the diagram.

- 5. After the information is recorded, the teacher shows how each answer fits into a slot in a main idea sentence.
- 6. The students write a main idea, using the information from the herringbone diagram.
- 7. The teacher duplicates sheets with the diagram, meanwhile the students will complete diagram on their own.
- 8. The diagram becomes a tool for story discussion. During the discussion the teacher and students compare their answers and their rationales.

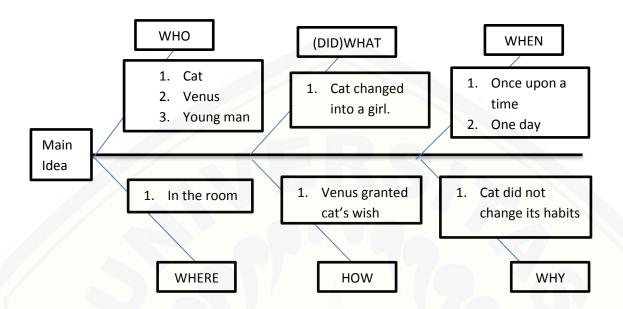
Deegan (2006) also adds some modification in implementing Herringbone Technique in teaching reading. He states that the implementation of Herringbone Technique can be changed from finding the facts first to writing a main idea and then looking for the facts that support this main idea. Thus, the students can read the text more than one time in order to find supporting details and main idea and then put them in the diagram. Further, the researcher will apply those steps in teaching and learning process in reading comprehension by using Herringbone Technique.

The example of using Herringbone Technique

Story of Venus and The Cat

A Cat fell in love with a handsome young man, and begged the goddess Venus to change her into a woman. Venus was very gracious about it, and changed her at once into a beautiful maiden, whom the young man fell in love with at the first sight and shortly afterwards married. One day Venus thought she would like to see whether the Cat had changed her habits as well as her form. So, she let a mouse run loose in the room where they were. Forgetting everything, the young woman had no sooner seen the mouse than up she jumped and was after it like a shot, at which the goddess was so disgusted that she changed her back again into a Cat.

(http://www.englishdirection.com/)



Main idea: A falling in love cat wanted to be a human.

2.5 The Advantages and The Disadvantages of Herringbone Technique

2.5.1 The Advantages of Herringbone Technique

Herringbone Technique provides many advantages for the process of reading. Based on Deegan (2006), Herringbone Technique has some advantages as follows.

- 1. It helps students for encoding the information in a manner that enhances their ability to answer essay questions.
- 2. It helps students to draw relationship between facts and main idea in the text.
- 3. The students can find facts and put them into the diagram.
- 4. The students can construct a main idea from the facts in the paragraph.
- 5. The students are more active in a group discussion after using the Herringbone Diagram.

From those advantages, it can be concluded that Herringbone Technique is an effective graphic organizer that can be easily used by students in constructing main idea, encoding the information and gaining their active participation in a group discussion. Herringbone Technique also gives students the fun reading activity in teaching learning process.

2.5.2 The Disadvantages of Herringbone Technique

According to a website, quizlet.com which explains about teaching and learning technique there are some disadvantages of using Herringbone Technique in teaching learning process, such as the following.

- 1. Students might have different ideas about what the main idea is and make confused their peers with different answers.
- 2. Students may get off the topic while working in group.

To overcome the disadvantages of Herringbone Technique, the researcher will guide the students about how to pick the correct main idea by giving them some tips. If the students get off the topic, the researcher will ask them to focus on their paper work or make a deal with the students who deviated from the topic or paperwork.

2.6 Research Hypothesis

Based on the literature review and the problem of research above, the hypothesis of this research is formulated as follow; "There is a significant effect of using Herringbone Technique on the eleventh grade students' reading comprehension achievement at SMA Negeri 1 Pesanggaran Banyuwangi".

CHAPTER 3. RESEARCH METHODS

This chapter presents about the explanation of research methods used in this research. The research methods used in a research should be suitable with the problem investigated in order to get the best result of validity and reliability of the research instruments, thus the researcher could achieve the objective of the research well.

Research methods in this chapter covered six points. They were research design, research area determination, respondent determination method, operational definition of the key terms, data collection method, and data analysis method. Each point is presented respectively as follows.

3.1 Research Design

A research design is an essential point in conducting a research. Research design is a strategy to arrange the setting of the research to get valid data that match with the variable and the objective of the research (Arikunto, 2006:44). It means that research design takes an important role in arranging the strategy and setting of a research.

The research design used in this research was quasi-experimental research. Quasi-experimental research was chosen because this research was not a true experimental research. It was caused by the populations of this research had been grouped into some classes. This research involved random assignment of whole groups to treatments (Lodico, *et. al*, 2006:185). It was also intended to know whether or not there was a significant effect of Herringbone Technique on the eleventh grade students' reading comprehension achievement at SMAN 1 Pesanggaran Banyuwangi. The research design was Randomized-Groups Post-

test Only Design that involves two groups, an experimental group and a control group. This kind of research design allowed the researcher to give different treatment on both groups. A special or certain treatment was given only to the experimental group which was Herringbone Technique. Meanwhile the control group was given Reading Aloud Technique as commonly used by the teacher. Then, both of the groups were given a post-test.

Two classes used as the research samples came out of the five existing science classes of the 11th grade students of SMAN 1 Pesanggaran, Banyuwangi, basically, by random selection and random assignment using cluster random sampling method after analyzed statistically the students' previous score. Then, each class was determined to be experimental group and control group by using lottery. The design is presented in the following chart.

Experimental Group	R	\rightarrow	X	\rightarrow	O_1
Control Group	R	\rightarrow	С	\rightarrow	O_2

(Fraenkel and Wallen, 2006:273)

R: Random assignment

X: Treatment

C: No treatment

O₁: Posttest of experimental group

O₂: Posttest of control group

The procedures of the research design as follows.

- 1. Analyzing the students' reading scores obtained from the teacher by using ANOVA (Analysis of Variance) formula to know the homogeneity of the population.
- 2. Determining the experimental group and control group based on the result of the population homogeneity analysis that had the same or at least the closest mean score difference.
- 3. Determining the two classes as the experimental group and control group randomly by using lottery.
- 4. Choosing the reading materials and constructing lesson plans for the experimental and control groups.
- 5. Administering a try out test to establish the reliability and difficulty index of the teacher-made test. The test items given to the students were 30 test items which should be done in 60 minutes. Then analyzing the result statistically. In addition, the time allocation and the instruction also checked in the try out test.
- 6. Giving treatment to the experimental group by using Herringbone Technique in teaching reading comprehension, while the control group was taught reading by using Reading Aloud Technique.
- 7. Administering the post-test to the experimental and the control groups. The posttest consisted of 25 test items and the time allocation given was 60 minutes.
- 8. Analyzing the collected data by applying t-test formula to know whether or not there is a significant effect of using Herringbone Technique on students' reading comprehension achievement.
- 9. Discussing the result of the research by referring back to the theories and the previous study or research findings.
- 10. Drawing conclusion to answer the research problem.

3.2 Research Area Determination

The area of this research was SMAN 1 Pesanggaran, Banyuwangi. The school was determined by using purposive method. Purposive method means selection of particularly informative or useful subjects based on the researcher's knowledge of population to provide the best information to address the purpose of the research (McMillan, 1992:76). The reason why the researcher chose SMAN 1 Pesanggaran, Banyuwangi was based on consideration that the English teacher in this school had never applied Herringbone Technique in teaching reading comprehension before. Moreover, the research about Herringbone Technique had never been used before at this school. The researcher also had permission from the school Principal for conducting the research about the effect of using Herringbone Technique in SMAN 1 Pesanggaran, Banyuwangi.

3.3 Respondent Determination Method

The respondents of this research were the students of the eleventh grade of SMAN 1 Pesanggaran, Banyuwangi in the 2014/2015 academic year. There were seven classes of the eleventh grade in the school. They were divided into five science classes and two social program classes. The English teacher at SMAN 1 Pesanggaran suggested to take the science classes as the respondents for the research. He explained that the science and social class have different level and portion in English subject. So, it was impossible to teach both of science and social class with the same topic. Furthermore, the population of this research was more than 100 people.

The researcher used the result of the population homogeneity analysis that had the same or at least the closest mean score of difference from the students' previous score. Cluster random sampling was used to determine experimental and control group. Cluster random sampling is the selection of groups or cluster of subjects rather than individuals (Freankel and Wallen, 2006:97). The homogeneity analysis from students' previous score showed that the result of the

analysis were heterogeneous, therefore, it could be determined by choosing the two classes that had the closest mean difference. As the result, the researcher used lottery to determine the experimental group and control group.

3.4 Operational Definition of The Key Terms

The operational definition about some terms related with the topic of the research was needed to avoid misunderstanding between the researcher and the reader. The terms that required in the operational definition were Herringbone Technique, narrative text, and reading comprehension achievement.

3.4.1 Herringbone Technique

Herringbone Technique was an educational tool or teaching technique in the form of lines and boxes. Its form was almost like a fishbone. This technique was intended to find general and specific information within the text by plotting *who*, *what* (*did*), *when*, *where*, *why*, and *how*.

3.4.2 Reading Aloud Technique

Reading Aloud Technique was a technique in which the teacher or students orally read the text. It used to know how good the students do in understanding a whole text while listening to other and how good they pronounce the words correctly.

3.4.3 Narrative Text

The type of texts was used in the teaching and learning process in this research, consist orientation, complication or climax and resolution. In the teaching learning process the researcher used fable and folktales. The purpose of narrative text was to amuse or entertain the readers. The researcher will use fables or fairytales in the teaching and learning process of reading comprehension.

3.4.4 Reading Comprehension Achievement

Reading comprehension achievement in this research dealt with the students' scores of a reading comprehension test after having the treatment. Herringbone Technique for experimental group and Reading Aloud for control group. It was focused on finding general information and finding specific information with the material of narrative text.

3.5 Data Collection Method

The data in this research consisted of two kinds, they were primary data and supporting data. In this case the primary data were collected by administering a reading comprehension test. For the supporting data, the researcher used interview and documentation to collect the data.

3.5.1 Reading Test

According to Djiwandono (1996:1), tests are tools, procedures, or activities which are used to obtain someone's behavior of their ability in particular academic fields. In addition, Arikunto (2006:115) states that test is a set of questions or exercises or other instruments used to measure skill, knowledge, intelligence, and aptitude of an individual group.

Test in this research dealt with a set of instrument to measure the students' reading comprehension. Reading comprehension test was used to collect the data about the students' reading comprehension achievement in finding general and specific information. Further, the researcher decided to give the students an achievement test. Hughes (2003:13) notes that achievement tests are directly related to the language courses, their purpose being to establish how successful individual students, groups of students, or the courses themselves have been achieving objectives. That is why the researcher needed to administer a reading comprehension test in order to know the students' reading comprehension achievement and it was given as a posttest.

A posttest is a test which is given at the end of teaching learning process in order to measure the students' achievement. The posttest given to either experimental or control group/class within 60 minutes, 25 test items would be provided for the posttest. The posttest consisted of 14 items of finding general information and 11 items of finding specific information. Further, each item had the same score that is 4 points, so the total score is 100.

Based on the method of scoring, Hughes (2003:22) divides test into two kinds, objective test and subjective test. A test is called as objective test if there is no judgment at the part of the scorer, meanwhile subjective test involves the scorer's judgment. The test which were given to the students was a teacher-made test in the form of objective test. The researcher chose objective test because it is easy to be scored and easy to be done by the students. Hughes (2006:78) says "The multiple choice technique is best suited to relatively infrequent testing of large numbers of candidates". The researcher provided four options in each test item.

A test is considered as a good test if it has validity and reliability. Hughes (2006:26) notes that a test is said to be valid if it measures what is intended to be measured, while a test could be said reliable if it could give consistent result when the test is administered. The validity which was used to construct the test was content validity based on the curriculum which was Institutional Level Curriculum (*KTSP* 2006) and construct validity regarded to the language skills. To know the validity and reliability of the test and index of difficulty level of the test items, the researcher conducted a try out test. Try out test was administered before the post-test given. Try out test was also conducted in another class which did not belong to experimental or control classes. The try out test consisted of 30 questions with the duration is 60 minutes. The try out test consisted of 15 items of finding general information and 15 items of finding specific information. The test was constructed based on the curriculum and teacher advice in order to ensure the suitability of the material and to establish content validity.

To know the reliability of the test in this research, the result of the try out test was analyzed by using Spearman-Brown Formula (Split Half Odd-Even). Djiwandono (2011:177) states that split half method is a method which is administered to a particular group in order to know the reliability of the test by correlating students' score. The scores were obtained from the odd numbers test items and even numbers test items that had been done by the students. The procedures are as follows.

- 1. Conducting the try out test and giving score to each item.
- 2. Splitting the scores into two parts according to odd-even numbers.
- 3. Giving sign (X) to the odd numbers and (Y) to the even numbers.
- 4. Analyzing the correlation between (X) and (Y) by using Product Moment Correlation Formula.

$$r_{xy} = \frac{N\sum XY - (\sum X)(\sum Y)}{\sqrt{\{N\sum X^2 - (\sum X)^2\}}\{N\sum Y^2 - (\sum Y)^2\}}$$

Notes:

r_{xy}: The reliability coefficient.

N : The total number of respondents (the students).

 $\sum XY$: The total number of the odd and even items.

 $\sum X$: The total number of odd items.

 $\sum Y$: The total number of even items.

(Arikunto, 2006:146)

5. Estimating the reliability of the whole test by using Spearman-Brown Formula.

$$r_{11} = \frac{2_{xy}}{1 + r_{xy}}$$

Notes:

 r_{11} : The reliability coefficient of the whole test items.

 r_{xy} : The correlation coefficient of product moment.

Criteria of Reliability based on Djiwandono (1996:154)

0.90 - 1.00 : Very high

0.70 - 0.89 : High

0.50 - 0.69: Fair

0.30 - 0.49: Low

< 0.30 : Very low

Djiwandono (2011:224) says "A difficulty index test of the test items should be carried out, so that the test items are not too easy or too difficult". Based on his statement, the researcher should measure the difficulty index of test items. It was analyzed by using this following formula.

$$FV = \frac{R}{N}$$

Notes:

FV: Facility of value (index difficulty level).

R: The number of the students who can give correct answer.

N: The number of students taking the test.

(Heaton, 1991:179)

The criteria of the difficulty index by Djiwandono (1996:141).

0.0 - 0.19: Difficult

0.20 - 0.80: Fair

0.81 - 1.00 : Easy

3.5.2 Interview

Structured interview was chosen to collect information from the English teacher about the teaching learning process in SMAN 1 Pesanggaran, especially at the eleventh grade. Based on the Fraenkel and Wallen (2006:137), structured interview consists of series of questions design to elicit the specific information on the part of participants. The data which were obtained during the interview at December 16th 2014 related to the students' problem, the teacher's strategy, the English textbook used, and also the activities in teaching reading comprehension.

3.5.3 Documentation

Documentation could be used to obtain data from the documentation resources to support the primary data (Arikunto, 2006:158). In this research, documentation dealt with the data about the score of the research sample, the English curriculum for senior high school, syllabus and the recent scores of the reading test to support the primary data.

3.6 Data Analysis Method

Data analysis method is a way to analyze the data. The researcher used independent sample t-test to analyze the primary data. Independent sample t-test was used to compare two means of two independent samples. The primary data was obtained from the students' reading comprehension test scores of the posttest given to the experimental and control group. The formula of independent sample t-test is as follow.

$$t = \frac{M_{x} - M_{y}}{\sqrt{\left(\frac{\sum x^{2} + \sum y^{2}}{N_{x + N_{y}} - 2}\right)\left(\frac{1}{N_{x}} + \frac{1}{N_{y}}\right)}}$$