THE EFFECTIVENESS OF JIGSAW TECHNIQUE TO IMPROVE STUDENTS’ READING ABILITY IN NARRATIVE TEXT
(An Experimental Research at the Eleventh Grade of MAN Kendal in the Academic Year of 2010/2011)

A Thesis Project

Submitted in Partial Fulfillment of the Requirement for the Degree of Bachelor of Education in English Language Education

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"Allah does not change a people’s lot unless they change what is in their hearts.”
(QS. Ar-Ra’du:11)∗

DEDICATION

This thesis is dedicated to:

❖ Beloved mother, Siti Subaidah and beloved father Moh. Supri, You are the best supporter for the researcher.

❖ All the researcher’s big family, young brothers, M. Khoirul Umam and Imam Tantowi. Thank you so much for your praying during the researcher’s study.
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All the praises belongs to the king of life Allah SWT, the most merciful and the most graceful until this thesis can be completely finished. The Effectiveness of Jigsaw Technique to Improve Students’ Reading Narrative Text Ability (An Experimental Research at the Eleventh Grade Students of Madrasah Aliyah Negeri Kendal 2010/2011 Academic Year) is a thesis for readers who want to know the effectiveness of jigsaw technique to improve students’ reading narrative text ability. Jigsaw is one of technique that can be used in teaching learning process especially in the teaching of reading narrative text. For teachers, the effectiveness of jigsaw can help the students comprehend some narrative texts effectively.

The researcher realizes that he can not complete this thesis without support, cooperation, help and encouragement from a lot of people. Therefore, the researcher would like to extend her appreciation to all of them, especially to:

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ABSTRACT

Muhammad Yusuf Mauludi (Student Number: 063411007). The Effectiveness of Jigsaw Technique to Improve Students’ Reading Narrative Text Ability (An Experimental Research with the Eleventh Grade of MAN Kendal in Academic Year of 2010/2011). Thesis. Semarang: Bachelor Program of English Language Education of Tarbiyah Faculty of Walisongo State Institute for Islamic Studies, 2011.

Key words: Jigsaw technique, reading narrative text ability, experimental research.

This study is based on the importance of reading comprehension but in fact the students’ ability in comprehending reading text at MAN Kendal is low. Especially for reading narrative text.

The problem of this research can be stated as follow: How is the effectiveness of Jigsaw technique to improve students’ reading narrative text ability?

Its purpose is to find out the effectiveness of Jigsaw technique to improve students’ reading narrative text ability.

To achieve the objectives of the study, the writer conducted experimental research. This experimental research was held at MAN Kendal. The population in this research is all students of grade eleventh of MAN Kendal in academic year of 2010/2011. The number of the entire students is 387. The researcher used purposive sampling technique to determine class of research. The subject of the study was the grade XI IPS-1 and XI IPS-2. There were 43 students each class.

The writer conducted research in two classes. The first class (XI IPS-1) was as experimental class and the second class (XI IPS-2) was as control class. The experimental class was taught reading narrative text using Jigsaw technique, whereas the control class was taught reading narrative text without using Jigsaw technique.

In analyzing the data, the writer used a quantitative measurement to find the result. The analysis of the data showed that there was a significant difference of the students’ achievement between experimental class and control class. The average of the students’ achievement before conducted treatment 47.91 for experimental class and 47.79 for control class. The average of the students’ achievement after conducted treatment in experimental class was 78.14 and in control class was 74.42.

Based on this finding, it is suggested that Jigsaw technique can be used by the teachers to improve students’ ability in reading narrative text.
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CHAPTER I
INTRODUCTION

A. BACKGROUND OF THE STUDY

People use language to express their mind, wishes and ideas. Language is a means of communication, people use it to share ideas with others and exactly language predicts attitude and wishes of the users.

Language is not only used for daily conversation but also used in education, research and science both spoken and written. Considering those function of language, people study language both formal or in class and informal or outside the class.

It is important for us to learn language especially English since it is used as a means of communication among nation in the world. Although English is not the largest number of native or 'first' language speakers, it is widely used by many people all over the world as their 'second' language.¹

In this globalization era, Indonesian people in their daily life will frequently use English. Besides they can communicate with many people from others countries, they can use English to cover the limitation vocabulary in Indonesian language. Actually, Indonesian people have learned some English words subconsciously. There are some words that sound weird and less appropriate if it is translated in Indonesian language but they are familiar with the words such as: bank, chocolate, computer, hamburger, hotel, piano, restaurant, taxi, telephone, television, university and so on.² Indonesian has borrowed many of those words because they do not originally come from Indonesian language. So if we have mastered English well, we will have accustomed to those words and we can apply them appropriately.

Other advantages of learning English are that we will know the development of knowledge, science and technology because most of books, articles, journals of science are written in English. Because those advantages,

Indonesian government involves English into the competence-based curriculum. English has been taught formally since Junior High School and as a local content English has been taught in Elementary School starting from grade four.

Realizing these facts, Indonesia has tried many endeavors such as charging and making the curriculum perfect and also introducing new technique of teaching to English teachers in order to improve the qualities of the teaching of English in Indonesia. The success of the teaching-learning process depends on several factors. And the most important things in the actualization of the teaching and learning process are the teacher and learner. Therefore one of the ways, in order to make the teaching learning process effective, the teacher has to have a good classroom management which can stimulate the students to be active in following the system of the teaching learning process. And one way to realize it is by making the teacher know and understand the technique of teaching English. The teacher should be able to choose the appropriate technique of teaching English for students.

The class atmosphere must be planned so that students get the opportunity to interact each other. In this interaction students will enjoy learning process. If the class atmosphere is full of the competition, negative attitude and relationship will be formed and disturb students' support. This atmosphere will disturb the knowledge form actively. That is why, a teacher must create the class atmosphere in such a way that the students cooperate with each other.

Thus, in this study the writer chooses Jigsaw technique as an alternative way to create an active teaching learning process. Jigsaw is one kind of cooperative learning techniques in which students work in small group without paying attention of gender, ethnicity, religion, and ability then in this team work format every student is forced to be active.
Reading, the one of cooperative skill is important so that students need to further develop, refine, extend, and apply their reading strategies to a variety of different text.

Reading is very important for Indonesian students because it helps them to understand many books written English, either to obtain information and message for scientific purpose or just for relaxation. Success in reading is very important for students, both for academic and vocational achievement.

Usually there are some reasons why someone reads. First, they often have reading as one of their most important goals. They want to be able to read for information and pleasure, for their career, and for study purpose. Second, written texts serve various pedagogical purposes. Good reading texts also provide good models for writing, and provide opportunities to introduce new topics, to stimulate discussion, and to study language.

One of text on reading is narrative text. Narrative text helps students in develop the students' reading ability. So students will be motivated in learning process.

B. REASON FOR CHOOSING THE TOPIC

There are some techniques in Cooperative Learning, such as STAD (Student Teams Achievement Division), Jigsaw, Think-Pair-Share, and Two-Stay Two-Stray.3

In this research, the writer chooses Jigsaw technique in the topic because:

1. Jigsaw technique is the interesting technique of English learning to activate the students in learning process.
2. Jigsaw technique can improve the students' responsibility in the teaching learning process.
3. Jigsaw technique gives the opportunity for the students in cooperating with the other students.
4. Jigsaw technique gives a chance to contribute meaningfully to a discussion for the students, something that is difficult to achieve in large-group

4 discussion. Each student develops their skill and has something important to contribute.

5. *Jigsaw* technique can create the class atmosphere in such a way that the students cooperate with each other.

**C. RESEARCH QUESTION**

How is the effectiveness of *Jigsaw* technique to teach students' reading narrative text at the eleventh graders of MAN Kendal in the academic year of 2010/2011?

**D. OBJECTIVES OF THE STUDY**

The objective of this study is:
To find out the effectiveness of *Jigsaw* technique to improve students' reading narrative text at the eleventh graders of MAN Kendal in the academic year of 2010/2011.

**E. PEDAGOGICAL SIGNIFICANCE**

The result of the study is expected to be able to give the following benefits for:

1. **English Teacher**
   The teacher will find a new effective teaching process in using *Jigsaw* technique for her students especially in reading narrative text.

2. **Students**
   After the teacher finds out the effectiveness of using *Jigsaw* technique to teach reading, students are hoped to be easier in learning and mastering reading especially in narrative text.

3. **The writer**
   The writer can use this technique to improve his skill in reading mastery.

4. **English Language Teaching**
   English language teaching will soon recognize the suitable and effective teaching reading using *Jigsaw* technique further. Even the institution where the English language held, it will get a better result in its graduations.
F. DEFINITION OF KEY TERMS

There are some key terms of this study, as follows:

1. Effectiveness

   Effectiveness refers to that which is able to produce a (desired) effect. Effectiveness is applied to that which has the power to, or which actually does, produce an (often lasting) effect.⁴

2. Jigsaw technique

   Jigsaw technique is the specific cooperative learning technique which the group is divided into four-six persons in a group.⁵ It makes students focus in the learning material and they have to cooperate one another.

3. Reading

   Reading is the ability to draw meaning from the printed page and interpret this information appropriately.⁶

4. Narrative text

   Narrative text is a literary text that tells a story to entertain or give view of live.⁷

5. Experimental study

   Experimental study is an act or operation for the purpose of discovering something unknown or of testing a principle, supposition, etc.⁸

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CHAPTER II

A. THEORITICAL REVIEW

This sub-chapter discusses about Jigsaw technique, reading skill and narrative text as the basic theory of the research.

1. Jigsaw Technique

Jigsaw technique is the way have been used by researcher in his research. This section discusses about Jigsaw among other: definition, history, steps, and using Jigsaw technique in teaching reading.

1.1. Definition of Jigsaw Technique

Jigsaw is a usually power-driven saw with a narrow vertical blade, used to cut sharp curves.\(^1\) In Webster’s Encyclopedic Unabridged Dictionary of the English Language Jigsaw is a narrow saw, mounted vertically in a frame, for cutting cuves or other difficult lines.\(^2\)

Jigsaw can be used whenever the material, for example; in the written narrative form. “It is most appropriate in such subjects as social studies, literature, some part of science and related areas in which concepts rather than skills are the learning goals”.\(^3\)

As conclusion, Jigsaw is a remarkably efficient way to learn the material. However, even more important, the Jigsaw process encourages listening, engagement, and empathy by giving each member of the group an essential part to play in the academic activity.

1.2. The History of Jigsaw Technique

The Jigsaw is a teaching technique that is applied in the classroom. It was first applied in 1971 in Austin City, Texas. According to Aronson the Jigsaw was implemented by him in the

\(^2\)Op Cit., Webster’s Encyclopedic Unabridged Dictionary of the English Language, p.767.
school to help teaching material. It was used by collaborating students’ Austin, African and American.

*Jigsaw* is an efficient way to facilitate learning. In this technique, students learn a lot of material quickly, share information with other groups, minimize listening time, and be individually accountable for their learning. Since each group needs its members to do well in order for the whole group to do well, *Jigsaw* maximizes interaction and establishes an atmosphere of cooperation and respect for other students.

In the classroom, students worked individually and competed against each other for grades. It was on the context that they invented the *Jigsaw* strategy. First, they helped several teachers devise a cooperative *Jigsaw* structure for the students to learn about the life of Eleanor Roosevelt. They divided the students into small groups, diversified in terms of race, ethnicity and gender, making each student responsible for a specific part of Roosevelt’s biography. Needless to say, at least one or two of the students in each group were already viewed as “losers” by their classmates.4

The *Jigsaw* technique is developed by Elliot Aronson and his friends in 1978 as cooperative learning method.5 This technique can be used to learn reading, writing, listening, or speaking. The students cooperate with their friends and have many opportunities to improve their communication ability.

In *Jigsaw* technique, the students have the opportunity to improve their responsibility to their learning and they can cooperate with the other students to learn the material.

*Jigsaw* technique is used to improve students' responsibility to their learning. The students not only study the given material, but also

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they must give and teach the material to the other members. So the students will depend on the other students. They must cooperate to learn the given material.\textsuperscript{6}

\textit{Jigsaw} technique is a specific cooperative learning. Each student is essential for the completion and full understanding of the final product.

\textit{Jigsaw} is a teaching technique used in small group instruction. Students of a normal sized (26-33 students) class will be divided into competency groups. Each group will be given a list of subtopics to research, with individual members of the group breaking off to work with the "experts" of other groups, then returning to their starting body in the role of instructor for their subcategory.

The \textit{Jigsaw} technique is a cooperative learning technique appropriate for students between 3rd and 12th grade. This technique is an efficient way of teaching material that also encourages listening, engagement, interaction, teaching, and cooperation by giving each member of the group an essential part to play in the academic activity. The technique involves breaking the classroom into small groups; each group consists of five to six students. Each group is responsible for a specific piece of knowledge that they will discuss with other classmates.

\subsection*{1.3. The Steps of Jigsaw Technique}

The \textit{Jigsaw} technique is very simple to use. The students are divided into five or six members in a group. Each member is responsible to learn the given material.

The teaching procedures in English classroom by \textit{Jigsaw} might be sequenced as follows:\textsuperscript{7}

1. Students are divided into 5 or 6 persons of a \textit{Jigsaw} group. The

\textsuperscript{6}Op cit., Anita Lie, p.68.
group should be diverse in terms of ethnicity, gender, ability, and race.

2. One student should be appointed as the group leader. This person should initially be the most mature student in the group.

3. The day’s lesson is divided into 5-6 segments (one for each member). For example, if you want history students to learn about Eleanor Roosevelt, you might divide a short biography of her into stand-alone segments on: (a) Her childhood, (b) Her family life with Franklin and their children, (c) Her life after Franklin contracted polio, (d) Her work in the White House as First Lady, and (e) Her life and work after Franklin’s death.

4. Each student is assigned one segment to learn. Students should only have direct access to only their own segment.

5. Students should be given time to read over their segment at least twice to become familiar with it. Students do not need to memorize it.

6. Temporary experts groups should be formed in which one student from each Jigsaw group joins other students assigned to the same segment. Students in this expert group should be given time to discuss the main points of their segment and rehearse the presentation which they are going to make to their Jigsaw group.

7. Students come back to their Jigsaw group.

8. Students present his or her segment to the group. Other members are encouraged to ask question for clarification.

9. The teacher needs to observe the process from group to group. Intervene if any group is having trouble such as a member being dominating or disruptive. There will come a point that the group leader should handle this task. Teacher can whisper to the group leader as to how to intervene until the group leader can effectively do it themselves.

10. A quiz on the material should be given at the end so students
realize that the sessions are not just for fun and games, but that they really count.

\textit{Table 1}

\textit{The correlation between Jigsaw groups and expert groups}

\begin{center}
\begin{tabular}{|c|c|}
\hline
Jigsaw Groups & Expert Groups \\
\hline
\end{tabular}
\end{center}

1.4. Using \textit{Jigsaw} Technique in Teaching Reading

\textit{Jigsaw} is one of some cooperative learning techniques. It is a way to teach students to be a master in learning materials. In this study, \textit{Jigsaw} technique is used to teach English reading. Although there are many techniques in teaching learning English, the researcher chooses \textit{Jigsaw} technique to improve the students’ reading skill because the \textit{Jigsaw} technique can help students to communicate one another if they have problems in reading text. Therefore the application of using reading text is usually have many problems which got by students. For example: difficult words, comprehension of sentences, how to read the word or sentence correctly, etc.

From those problems, when the English teaching learning process uses \textit{Jigsaw} technique, the students can be helped by others so the students who get the problems can comprehend the reading text favourably. \textit{Jigsaw} technique can be a way for students to communicate their problems when they acquire reading text.
2. General Concept of Reading Skill

Reading is one of the language skills. The researcher used it as the skill to know and measure the students’ ability. This part discusses about definition of reading, reading skill, purpose of reading, types of reading and improving the reading.

2.1. Definition of Reading

Reading skill is important in language skills. Every students must study and become master on it. Reading is a basic tool of learning. Reading is an accurate tool in promoting life-long learning. By mastering reading skill, learners have a technique to explore "world" and a chance to achieve their goals in life.  

There are many definitions of reading. Reading is the cognitive process of understanding a written message. Reading is a process of retrieving and comprehending from of stored information or ideas are usually some sort of representation of language, such as symbols to be examined by sign or by touch. Reading is approached as thinking – a process of infracting with textual material and sorting, evaluating and reacting to its organization and context. Reading is the ability to draw meaning from the printed page and interpret this information appropriately. Reading is a receptive language process. It is psycholinguistic process in that it starts with a linguistic surface representation encoded by a writer and ends with meaning which the readers construct. There is thus as essential interaction between

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language and thought reading. The writer encodes thought as language and the reader decodes language to thought.\textsuperscript{13}

To summarize, reading is an ability of cognitive process or interaction between the graphic symbols and the language skills of a reader. Reading is also a process of communication between a writer and a reader. A writer has message in his/her mind, such as teaching, fasts, ideas and argument that he/she wants to share the writer puts the message into word or printed verbal symbols. When the messages enter the reader's mind, it means that communication goes on. In comprehending the content of the text, reader not only uses eyes but also their mind concentration to catch the writer's idea.

2.2. Reading Skill

Reading in language learning plays an important role. In English language learning, mainly in secondary school, reading is one of the four language skills. Students have to learn it. The aim of the English learning is to develop English communicative competence, which involves listening, speaking, reading, and writing in their appropriate balance. Although reading is only about 25\% of the whole portion for the four skills (listening, speaking, reading, and writing), people who are learning a new language need to learn reading more. Mikulecky states some reasons why reading is important:

1. Reading helps you learn to think in the new language.
2. Reading helps you build a better vocabulary.
3. Reading makes you more comfortable with written English. You can write better English if you feel comfortable with the language.
4. Reading may be the only way for you to use English if you live in non English speaking country.

5. Reading can help if you plan to study in an English speaking country.¹⁴

The students are mostly those who study English in school. They have to learn a new language. One of the skills to be learned is reading. As they live in Indonesia, where English is not daily used, reading is the most practical way of getting exposed to using the language. The students, who regard English as a foreign language, need to read authentic text of English in their daily life, such as medical brochures, instruction manual on electronic devices, pop song texts, or even letters from their pen friends. As they grow up, they will learn knowledge from various books, some of which may be written in English.

The purpose of teaching reading are:
1. They develop students’ awareness of the reading process and reading strategies by asking students to think and talk about how they read.
2. They allow students to practice the full repertoire of reading strategies by using authentic reading tasks.
3. When working with reading tasks in class, they show students the strategies that will work best for the reading purpose and the type of text.
4. They have students practice reading strategies in class and ask them to practice outside of class in their reading assignments.
5. They encourage students to evaluate their comprehension and self-report their use of strategies.
6. They encourage the development of reading skills and the use of reading strategies to convey instructions and course-related information in written form.

7. They explicitly mention how a particular strategy can be used in a different type of reading task or with another skill.

The importance of reading is stated in the Holy Qur'an Surah Al-'Alaq 1-5:

آَقِرْ ۚ أَعْلَمْ بِالْقَلْبِ ۚ عَلِيمُ الْعِلَّامِ ۚ عَلِيمُ الْإِنسَانِ ۖ مَا لَمْ يُعْلَمَ

"Read! In the Name of your Lord who created, created man from clots congealed blood. Read! Your Lord is the Most Bountiful One, who thought by the pen, man what he did not know."

This verse show that Islam gives high attention to reading. It explains about how reading can be a first step of teaching learning process. Reading in Islamic perspective is not only dealing with the understanding, but also interpreting and extracting. The information from the text than relate it to the real phenomenon readers have.

We can read the creation from God in the world. It can be formed in written such as holy Qur'an. By reading holy Qur'an we know the knowledges of world. Holy Qur'an teaches us to communicate to other people by using good language in appropriate with language structure. Because of reading is important, so human being needs to learn how to read correctly. They can learn it in school or other educational institutions.

The skill of reading have been developed in the Indonesian schools that is the students are able to read a text in the form of narration, description, hortatory and the other texts. The aspects of reading skill are:

a. Scanning

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Scanning or quickly searching for some particular piece or pieces of information in a text. Scanning exercises may ask students to look for names of dates, to find a definition of a key concept or to list a certain number of supporting details. The purpose of scanning is to extract specific information without reading through the whole text.\(^{17}\)

So, when the students scan a passage they only try to locate specific information needed as fast as possible. The faster they find the information the better. They don’t need to read the whole lines of the passage to transfer over the text until they find what they are looking for.

b. Skimming

Skimming consists of quickly running one’s eyes across a whole text for its gist. It gives readers the advantages of being able to predict the purpose of the passage, the main topic or massage and possibly some of developing or supporting ideas.\(^ {18}\) When the students skim, they are looking for the idea, the most of central part of what the writer wants to say without a lot of details. They just preview or overview of the material. They don’t need to read the whole words in the passage closely. They can omit unnecessary words, phrases or sentences. They just select key words and phrases in order to cover the passage rapidly and conclude the main ideas whether they are clearly or implicity stated in the text.

2.3. The Purpose of Reading Skill

Reading is an activity with a purpose. A person reads because of many purposes, for example, for getting information, expanding knowledge, and even for enjoyment. The reading text may include newspapers, letters, booklets, advertisements, magazines, etc. Nunan


adds newspapers on the www, email messages, academic texts and some poems written by a colleague. William classifies three purposes for reading namely getting general information from the text, getting specific information from the text and for pleasure or for interest. Rivers and Temperly list some of the reasons that L2 students may need or want to read:

1) to obtain information for some purposes or because learners are curious about some topic.
2) to obtain instruction on how to perform some task for work or daily life.
3) to keep in touch with friends by correspondence or to understand business letters.
4) to know when or where something will take place or what is available.
5) to know what is happening or has happened (as reported in newspapers)
6) for enjoyment or excitement.

Reading for academic purposes is a multifaceted subject. However, there is one fundamental aspect which can be starting point for other considerations. When students read, it is a purpose. Clearly, students can have different purposes in their reading; these will include:

1) to obtain information (fact, data, etc).
2) to understand ideas or theories, etc.
3) to discover authors' viewpoints.
4) to seek evidence for their own point of view (and to quote) all of which may be needed for writing their essays, etc.

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The essential purpose of all reading generally is to get new information and/or for pleasure, not to go over what is known already or what is inconsequential to the reader in the first place.\textsuperscript{22}

L2 readers in academic settings most often need to develop reading for understanding and to learn. Based on both reading purposes, reading is the process of receiving and interpreting information encoded in language form via the medium of print.\textsuperscript{23}

Basically, the purpose of learning to read in a language has been to have access to the literature written in that language.\textsuperscript{24} It means that reading is an activity with a purpose. The readers may read in order to gain information or verify existing knowledge, to critique a writer’s ideas or writing style, read for enjoyment, or to enhance knowledge of the language being read.

2.4. Types of Reading

There are two types of reading that are usually applied in reading class, extensive and intensive reading.

1.) Extensive reading

Extensive reading is carried out to achieve a general understanding of a usually somewhat longer text (book, long article, or essays, etc). Extensive reading is also to obtain a general understanding of a subject and include reading longer text for pleasure; use extensive reading is to improve general knowledge.\textsuperscript{25}

It is reading activity that in teacher encourages students to choose for themselves what they like to read and to do so for pleasure and general language improvement.

\textsuperscript{22}Jo Mc Donough and Christopher Shaw, \textit{Materials and Methods in ELT: A Teacher's Guide}, (United Kingdom: Blackwell Publishing Ltd, 2003), 2\textsuperscript{nd} ed, p.91-92


\textsuperscript{25}Op Cit., Jeremy Harmer, p.210
2.) Intensive reading

Intensive reading is usually a classroom-oriented activity in which students focus on the linguistic or semantic details of a passage. Intensive reading calls students attention to grammatical form, discourse markers, and other surface structure details for the purpose of understanding literal meaning, implication, rhetorical relationships, and the like.

For this reading activity, the teacher chooses and directed what the students read and it is designed to develop specific receptive skill.

Intensive reading as an activity to take a text, study it line, referring at every moment to our dictionary and our grammar, comparing, analizing, translating and retaining every expression that it contains.

2.5. Improving the Reading Skill

Reading is a process to extract meaning from printed pages. Meanwhile, the essential unit of meaning is the idea, the concept, the thought, the image and the statement. Thus, it is impossible for the reader to extract the meaning of a word. In this study offer three activities; this can be used by an English teacher to help the students improve their reading skills.26

1. Building Vocabulary

This activity includes:
   a. Provide many direct and indirect experiences
   b. Encouraging wide reading
   c. Teach vocabulary directly

2. Improving Comprehension

Devices that will help students improve comprehension include:

---

a. Provide background experiences  
b. Give fully developed assignment  
c. Teach how use their textbooks  
d. Use directed reading lesson  

3. Developing flexibility in reading

The word flexibility refers to the students’ skills in understanding the same words in different contexts. It is necessary to be improved because it helps the students comprehending the various reading materials.

3. Narrative Text

Narrative is one of the genre text form. It is the material which have been used by researcher in the teaching reading text. The researcher measured the students’ reading narrative text ability. Therefore the writer discusses some points which relates with narrative among other; definition, the social function, types, generic structure and language features of narrative.

3.1. Definition of Narrative Text

Narrative is kind of text which tells about events, or accuracies, which can make the reader feels that it is real. A narrative tells about something that happened in the past.

A narrative is a piece of writing that tells a story. The story can be imaginary or based on a real incident.27

A narrative tells about something that happened in the past.28

Signal words and time expressions make the order of narrative clear. It means that every story, which is ordered in the past, is a narrative.

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Narrative is a text which contents about a story like a story of citizen (folktale), the story of animals (fable), legend, etc. that a narrative text contains story by presenting the sequence of events and actors which are characterized as heroes or cowards.

It can be concluded that narrative text is a spoken or written text to communicate a massage, which is used to interpret its meaning in the story.

3.2. The Social Function of Narrative Text

Narrative is kind of genre which has social function to amuse, entertain and to deal with actual or vicarious experience in different ways. Narrative deals with problematic events which lead to a crisis or a turning point of some kinds, which in turn finds a resolution. Based on competency-based curriculum 2004, the aim of narrative is to entertain and amuse the listeners and readers with the real experience or fancy.\(^{29}\)

In the other opinion, Ken Hyland said that narrative is kind of genre which social purpose to entertain and instruct via reflection on experience, like novels, short stories, etc.\(^{30}\)

It means that the purpose of narrative is to give entertainment and to deal with actual or vicarious experience indifferent ways, which is the evaluation shows now the problem starts. Then, there will be complication in which the problem arises. The resolution comes to solve the problem.

Therefore the students hoped able to understand, response and identify the narrative texts which taught by teacher agree with standard competency in the curriculum 2006 (KTSP).

3.3. Types of Narrative Text

There are many type of narrative text, including:


a. Humor, the aims to make the audience laugh as part of retelling story.
b. Romance, typically tells of two lovers who overcome difficulties to end up together.
c. Science function, use a setting involving science and technology.
d. Diary – novels, the text presented like diary entries.
e. Adventure, typically tells of exciting dangerous journey of experience.31

3.4. The Generic Structure of Narrative Text

One way in understanding narrative text is by identifying the generic structure of that text. The simple generic structure that is taught in senior high school is divided into the following three elements, namely orientation, complication, resolution and re-orientation.

a. Orientation

Normally, in the introduction or orientation the writer or narrator explains where the story happened. In this level the writer also used to produce atmosphere so that make the readers are persuaded to follow the story. In other words, it also has a function as the stimulus to the readers the narrator's literature. By reading the introduction of the text readers will understand first the contents of the text before they read it.

b. Complication

In this part, the crisis arises. It is the climax of the narrative. In the middle of the story, generally, the narrator shows the complication. Complication makes the story more interesting because the main character is prevented to reach his or her wanted.

31 Op Cit., Mark Anderson and Kathy Anderson, p.28
In this part, narrator brings up the issues occurred in the story. Complications are the description of real life and tell the readers that every issues or problems can be solved.

c. Resolution

After spelling many issues in the climax of the narrative, the narrator then tells to the readers about the resolution of issues or the problems.

Resolution is the crisis which is resolved, for better or worse. A satisfying narration will give the readers the resolution of the problem or complication. Generally, the resolution is placed in the end of narration, but sometimes the narrator will place other issues or complication after he or she presents the resolution of the problem. It is used to make the story does not come to the end. In short, resolution is the ending of the story.

d. Re-orientation

Re-orientation is optional of generic structure of narrative. So re-orientation is sometimes there and sometimes it isn’t there in narrative text. It is usually in ending of story or closure of events.

3.5. The Language Features of Narrative Text

The language features of narrative text, they are:

a. Using nouns and pronouns to identify people, animal or things involved. For example: king, princess, he, she, etc.

b. Specific participant is special characteristics object. For example: Cinderella, Aladdin, etc.

c. Using adjectives are useful to shape noun phrase. For example: beautiful white skinned lady, etc.

d. Using time connective and conjunctions to sequence the events. For example: then, when, suddenly, etc.

e. Using adverbs and adverbial phrases to indicate place and time. For example: here, there, at home, etc.
f. Using action verb in past form. For example: lived, drank, etc.
g. Using saying verbs which sign to pronounce something. For example: said, told, promised, etc.

B. PREVIOUS RESEARCH

In this research, the writer summarizes the relevant previous researches to prove the originality of the research.

1. The first research has been conducted by Anggraeni (A320030029) English Department of Muhammadiyah University of Surakarta (2007). In her thesis *Analysis of Reading Comprehension of English Narration* she concludes that the students comprehend literary work especially narration text. She also states that although reading comprehension of literary work especially narration text is quite difficult. The students can solve some main areas of comprehension gaps of Murby. It means that they have good comprehension.

2. The second is Mariyah (A320030203) English Department of Muhammadiyah University of Surakarta (2008) in *Teaching English Vocabulary Using Cooperative Learning Method with Jigsaw* through pre-experiment research. She concludes that the student’s motivation improves and maintains their skill in teaching learning process of vocabulary.

The difference between this research with both of them research before is that in this research, the writer will investigate about the effectiveness of *Jigsaw* technique to improve students’ reading narrative text. Whereas the previous research has done by Mariyah, she used *Jigsaw* technique to investigate students’ achievement in the vocabulary teaching. Then Anggraeni investigated about students’ comprehension in narrative reading. So, this research differs with previous research on the material.

C. HYPOTHESIS

A hypothesis is the statement or estimation of identifying feature in temporary of research problem which has weak correctness so that it needs
empirical experiment. The word of hypothesis is from the word “hypo” that has meaning under and “thesa” that has meaning correctness.32

Based on the result of those literature review and previous research, the writer conclude that there will be significant difference (Ha) of the student’s reading narrative text skill between the students who taught by using Jigsaw technique and the students who taught without using Jigsaw technique. The students who taught by using Jigsaw technique will get the better score. It means that “the use of Jigsaw technique to improve students’ reading narrative text skill” is effective.

CHAPTER III
METHODS OF INVESTIGATION

This chapter discusses sources of data, subject and setting of research, research design, research variable, instruments, and procedures of experimentation, scoring technique, and method of data analysis.

A. RESEARCH DESIGN

Research design plays an important role in a research because the quality of research greatly depends on the design. In this research, the writer uses the form of quantitative approach to analyze the data. According to Michael J Wallace, “Quantitative is broadly used to describe what can be counted or measured and can therefore be considered objective”.¹

Quantitative approach stresses the analysis to the numerical data that was processed by statistical method.² It explains the result of pre-test and post-test.

1. Experimental Research

Experimental research is one of the most powerful research methodologies that researchers can use. Of many types of research that might be used, the experiment is the best way to establish cause-and-effect relationships among variables. Yet experiments are not always easy to conduct.³

An experimental research involved two groups: experimental group and control group. The experimental and control group are consisting of eleven grade students of MAN Negeri Kendal. An experimental group received a new treatment while control group received a usual treatment. According to Nunan, experiment is designed to collect

data in such a way that threats to the reliability and validity of the research are ministered. This study used pre-test and post-test.

The design of the experiment could be described as follows:

\[
\begin{align*}
\text{E} & \quad 01 \quad X \quad 02 \\
\text{C} & \quad 03 \quad Y \quad 04
\end{align*}
\]

Adopted from Arikunto.  

Where:

- \( E \) = experimental group
- \( C \) = control group
- \( 01 \) = pre-test for experimental group
- \( 02 \) = post test for experimental group
- \( 03 \) = pre-test for control group
- \( 04 \) = post test for control group
- \( X \) = treatment by using Jigsaw
- \( Y \) = treatment without using Jigsaw

From the design above, subjects of research were grouped into an experimental group (top line) and a control group (bottom line). The quality of subjects was first checked by pre-testing them (01 and 03). Then, the experimental treatment (taught by using Jigsaw) was applied to the experimental group, while the control group was taught without Jigsaw. The test was held in the form of conversation. The results of post-test (02 and 04) were then computed statistically.

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2. **The Activities of Experimental Group**

a) **Pre-test**

Pre-test was given before the treatments. First, the writer came to the class. Then, he explained to the students what they had to do. Finally, he distributed the instruments and asked them to do the test.

b) **Activities in Experimental Group**

There were some activities in experimental group (Class XI IPS-1) as follows:

<table>
<thead>
<tr>
<th>No</th>
<th>Activities</th>
<th>Time Allotment</th>
</tr>
</thead>
</table>
| 1  | 1) Teacher explains about definition of narrative text and generic structure of narrative text, and then gives example of narrative text.  
2) Teacher asks students to make eight groups to apply *Jigsaw* technique then they gave narrative text to identify generic structure of narrative text. (Under teacher controlled). | 3x45’ |
| 2  | 1) Teacher explains about language features of narrative and the examples in the text.  
2) Teacher asks students to make eight groups to apply *Jigsaw* technique then they gave narrative text to identify language features of narrative text. (Under teacher controlled). | 3x45’ |
c) Post-test

Post-test was held after all treatments were conducted. This test was used to measure students’ achievement after they were given treatments. The result of test was analyzed statistically.

3. The Activities of Control Group

a) Pre-test

Pre-test was given before the treatment. First, the writer came to the class. Then, he explained to the students what they had to do. Finally, he distributed the instruments and asked them to do the test.

b) Activities for control group

There were some activities in control group (class XI IPS-2) as follows:

<table>
<thead>
<tr>
<th>No</th>
<th>Activities</th>
<th>Time Allotment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1) Teacher explains about definition of narrative and generic structure of narrative text. 2) Teacher gives some narrative texts to students to identify the generic structure of narrative individually and look for the difficult words. 3) Teacher invites students to write down their result in the white-board.</td>
<td>3x45’</td>
</tr>
<tr>
<td>2</td>
<td>1) Teacher explains the language features of narrative text. 2) Teacher gives some narrative texts to students to identify the generic structure of narrative individually and look for the difficult words. 3) Teacher invites students to write down their result in the white board.</td>
<td>3x45’</td>
</tr>
</tbody>
</table>
c) Post-test

Post-test was held after all treatments were conducted. This test was used to measure students’ ability after they were given treatments. The result of test was analyzed statistically.

B. SUBJECT OF THE RESEARCH

MAN Kendal located in Kompleks Islamic Center Bugangin Kendal is purposively selected as the research setting because of two major reasons. Firstly, its location is reachable for researcher to conduct the research. The second reason why it is selected to be the research setting is its students’ variety. They are from different regions in Central Java those are Kendal, Batang, Pekalongan, Semarang, and etc. Therefore, there are great possibility of students’ heterogeneity of intelligences and competences, social background and students’ characteristics. The location of MAN Kendal is in two pieces, those are north and south part.

1. Population

Population is all of the research of subject. The population in this research is all students of grade eleventh of MAN Kendal in academic year of 2010/2011. The number of the entire students is 387. The population of the research was distributed as follow:
   a. Class XI-IPA 1 with the number of 40 students.
   b. Class XI-IPA 2 with the number of 39 students.
   c. Class XI-IPA 3 with the number of 35 students.
   d. Class XI-IPA 4 with the number of 34 students.
   e. Class XI-IPA 5 with the number of 40 students.
   f. Class XI-IPS 1 with the number of 43 students.
   g. Class XI-IPS 2 with the number of 43 students.
   h. Class XI-IPS 3 with the number of 43 students.
   i. Class XI-IPS 4 with the number of 42 students.
   j. Class XI-Language with the number of 28 students.

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6Suharsimi Arikunto, Op cit, p.130.
2. **Sample**

Sample is some of chosen population using certain procedure so that can be expected to represent its population. Sampling is the process done to choose and take sample correctly from population so that it can be used as valid representative to the population.\(^7\)

In selecting the sample, the writer used random sampling. Arikunto state if the population is more than 100 persons, the writer may take 10-15% or 20-25% or more from population.\(^8\) Therefore, the writer take 20.5% out of 389 students as the sample from this study or equal 80 students.

The research is an experimental research, so the researcher needs to take two classes that will be an experimental and control class as the sample from ten classes of the population. To determine the two classes, the researcher used purposive sampling technique. This technique was done by taking the subject/sample which is not based on strata, random or area but it is based on the consideration of a certain purpose.\(^9\) The consideration that the researcher tried to complete in preliminary research was the sample that will be chosen has to be homogeny, so that the research will be a good and valid research. Because we know that something that can be compared is something that has the similar characteristic. The researcher took class XI IPS-1 and XI IPS-2, because based on the result of the summative test of the first semester, these two classes gained similar average achievements and considered as homogeneous class. Each class consisted of 43 students. Students in class XI IPS-1 was taught by using *Jigsaw* technique and considered as experimental group. While students in class XI IPS-2 was taught without using *Jigsaw* technique and considered as control group.

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\(^9\)*Ibid.*, p. 139
C. RESEARCH VARIABLE

According to Fred D. Kerlinger as cited by Arikunto, that all experiments have one fundamental idea behind them; to test the effect of one or more independent variables on a dependent variable (it is possible to have more than one dependent variable in experiments).10

This research, that used Jigsaw as technique in teaching reading narrative text, had two variables. Those variables were:

1. The Independent Variable

   Independent variable is the variable that the experimenter changes within a defined range; it is the variable in whose effect the experimenter is interested.11 The independent variable of this research was the use of Jigsaw in teaching reading narrative text.

2. The Dependent Variable

   Dependent variable is variable that measures the influence of the independent variable.12 The dependent variable of this study was the students’ achievement in the written test score in reading narrative text.

D. TIME AND SETTING

This research was conducted on the second semester in the academic year of 2010/2011 for about 1 month beginning from January up to February 2011. It was conducted in MAN Kendal, which was located in Kompleks Islamic Center Bugangin Kendal.

E. METHOD OF DATA COLLECTION AND ANALYSIS

1. Source of Data

   The data of this research were gathered from the written test of students’ in pre-test and post-test through ‘Jigsaw technique in teaching reading narrative text’ and the documentation of students’ previous summative test score.

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10Suharsimi Arikunto, op.cit., p. 119.
11Larry B. Christensen, Experimental Methodology, (Massachusetts:University of South Alabama,2001), 8th Ed, p. 145.
12Ibid., p. 145.
2. Success Indicators

   The indicators of reading teaching learning are as follow:
   a. The improvement of students’ reading skill through the use of ‘Jigsaw technique’.
   b. Students’ reading achievement with the minimum standard of score (KKM) 6.5.

3. Methods of Collecting Data

   1. Test

      Test is a set of questions and exercises used to measure the achievement or capacity of the individual or group. In order to discover how students are thinking and using the target language (English). The researcher was conduct written test in Jigsaw technique. The form of the test was written test which is used to measure skill, intelligeht, knowledge, or ability that are owned by individually or personality. The writer analyzed the result of the test and gave score. The test will be conducted to both control class and experimental class which consist of 43 students of control class and 43 students of experiment class before and after the treatment.

      Test is used to measure the person’s competence and to achieve the objective. The data was collected by giving written test. Written test was conducted twice, there are pre-test and post-test.

      This technique is applied by researcher to know the students’ achievements that have done in learning English, especially in teaching narrative text on the reading class.

   2. Documentation

      Another data is needed to help the researcher run the research. In addition to do that, data will be collected through documentation of the students' previous examination score from the school. It will be used to validate the sample.

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Documentation of students’ written test recording is used to evaluate students’ reading skill.

3. Observation

It refers to the activity of giving total concern to research object of the sense. In this research, the concern of research focused on the students’ observable behaviour pertaining to their understanding on reading narrative text. It used to know the condition of class and the obstacles appeared during teaching learning process and it also used to saw students’ difficulties, problems and understanding about material given.

4. Method of Data Analysis

There are three kinds of test that will be held in experimental research, they are pre-requisite test, try-out test, and hypothesis test. So there must be three process of analyzing the data collected from test.

1. Pre-requisite Test

Before the writer determines the sample, the writer should conduct a homogeneity test by choosing 2 classes with cluster random sampling. This test conducted to determine whether the data are homogenous or not. After conducted the test, data analysis was carried out to find out the homogeneity of the sample. It was meant to check if the research result met the requirement of good research or not.

It was meant to get the assumption that sample of research came from a same condition or homogenous. The writer used the formula as follows:

\[ F = \frac{\text{Biggest Variance}}{\text{Smallest Variance}} \]

Cited from Sugiono.\(^{14}\)

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2. Try out Test

According to Mouly in Tiowati, a try out test is necessary since the result will be used to make sure that the measuring instrument has such characteristics as validity and reliability. The instrument to be tried out was the composition test. The result of test was used to find out the validity and reliability.

1. Validity

Heaton states that validity is the extent to which it measures what is supposed to measure and nothing else. The result was consulted to critical score for r-product moment. If the obtained coefficient of correlation was higher than the critical score for r-product moment, it meant that a paragraph was valid at 5% alpha level significance.

To calculate the validity, the writer used the formula as follows:

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

Cited from Arikunto.

Where:

- \(r_{xy}\) = the correlation of the scores on two halves of the test
- \(N\) = the number of the students in each group
- \(X\) = the score of each component of speaking scoring
- \(Y\) = the sum of all dialogue’s score
- \(\sum X\) = the sum of total X score in each group
- \(\sum Y\) = the sum of total score from each student

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15 Husni Mubarok, The Effectiveness of Animated Film as Media in the Teaching of Narrative Writing (An Experimental Research at the Tenth Grade Students of MA Futuhiyyah 2 Demak in 2009/2010 Academic Year). (Semarang: IAIN WALISongo, 2009), p. 32.
17 Suharsimi Arikunto, op. cit., p. 170.
\[\sum XY = \text{the sum of multiple score from each student with the total score}\]
\[\sum X^2 = \text{the sum of the square score in each component of reading}\]
\[\sum Y^2 = \text{the sum of all dialogue’s score square}\]

2. Reliability

Reliability refers to the stability or the consistency of the test scores. Heaton states that reliability is a necessary characteristic of any good test; for it to be valid at all, a test must first be reliable as a measuring instrument.\(^\text{18}\) In this study, the reliability of the test was measured by comparing the obtained score with r-score product moment. Thus, if the obtained score was higher than the table r-score, it could be said that the test was reliable.

To calculate the reliability of the test, the writer used the formula as follows:

\[
r_{11} = \left(\frac{k}{k-1}\right) \Bigg(1 - \frac{\sum \sigma_{b^2}}{\sigma^2}\Bigg)
\]

Cited from Arikunto.\(^\text{19}\)

Where:

- \(r_{11}\) = index reliability
- \(k\) = number of items
- \(\sum \sigma_{b^2}\) = items variance
- \(\sigma^2\) = total variance

To find out the variance of each item, the formula was:

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\(^\text{18}\)J. B. Heaton, *op.cit.*, p.155.

\(^\text{19}\)Suharsimi Arikunto, *op.cit.*, p. 196.
To find out the total variance, the formula was:

$$\sigma_t^2 = \frac{\sum Y^2 - (\frac{\sum Y}{N})^2}{N}$$

3. Item Analysis

After scoring the try-out test, item analysis was carried out to find out the effectiveness of the items. It was meant to check whether each item met the requirement of good test item or not. Item analysis discussed two main things:

1) Difficulty Level

Heaton states that “the index of difficulty of an item simply shows how easy or difficult the particular item proved in the test”. If a teacher knows deeply about item difficulty in making a test, he can make his test easy, medium, or difficult.

To know the item difficulty, the writer used the formula:

$$P = \frac{B}{JS}$$

Where:

\[ P \] = index of difficulty
\[ B \] = the number of students who answer an item correctly
\[ JS \] = the total number of students

---

The index of difficulty level can be classified as follows:

- $0.00 \leq P < 0.30$ is difficult
- $0.30 \leq P < 0.70$ is medium
- $0.70 \leq P < 1.00$ is easy

Cited from Sukestiyarno and Wardono.\textsuperscript{21}

2) Discriminating Power

Item of discrimination power tells how well the item performs in separating the better students from the poorer students. If the good students tend to do well on an item and the poor students do badly on the same item, then the item is a good one because it distinguishes the good students from the bad students. Heaton states, “The discrimination index of an item indicated the extent to which the item discriminated between the testee, separating the more able testee from the less able. The index of discriminating power told us if students who perform well on the whole test tended to do well or badly on each item in the test.”\textsuperscript{22}

To calculate the index of discriminating power, the writer used the formula:

$$D = \frac{B_A}{J_A} - \frac{B_B}{J_B} = P_A - P_B$$

Taken from Arikunto.\textsuperscript{23}

Where:

- $J_A =$ Number of all students in the upper group
- $J_B =$ Number of all students in the lower group
- $B_A =$ Number of students in the upper group who answered the item correctly

\textsuperscript{21}Sukestiyarno and Wardono, Statistika, (Semarang: UNNES Press, 2009), p. 63..
\textsuperscript{22}J. B. Heaton, op. cit., p.173.
$B_B = \text{Number of students in the lower group who answered the item correctly}$

$P_A = \text{The proportion of the upper group who answered the item correctly}$

$P_B = \text{The proportion of the upper group who answered the item correctly}$

The criteria of determining the index of discriminating are below:

$D = 0.00 - 0.20 : \text{Poor}$

$D = 0.21 - 0.40 : \text{Satisfactory}$

$D = 0.41 - 0.70 : \text{Good}$

$D = 0.71 - 1.00 : \text{Excellent}$

3. **Hypothesis Test**

Firstly, the test was done in both groups, experimental and control group. Secondly, the result of the test was scored by using analytic scale. Thirdly, the means score of the two groups were determined. Finally, the two means were compared by applying t-test formula. T-test was used to differentiate if the students’ result of students’ reading skill in narrative text by using *Jigsaw* and without using *Jigsaw* was significant or not.

$$t = \frac{x_1 - x_2}{\sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

Where:

$$s = \sqrt{\frac{(n_1 - 1)s_1^2 + (n_2 - 1)s_2^2}{n_1 + n_2 - 2}}$$

Cited from Sudjana.²⁴

---

Where:

\[ \bar{x}_1 = \text{the mean score of the experimental group} \]
\[ \bar{x}_2 = \text{the mean score of control group} \]
\[ n_1 = \text{the number of the experimental group} \]
\[ n_2 = \text{the number of the control group} \]
\[ s = \text{standard deviation} \]
\[ s^2 = \text{variance} \]

If the obtained score was higher than t-table score by using 5% alpha of significance, Ho was rejected. It meant that Ha was accepted: “There was a significant difference in reading achievement between the experimental and control group.”
CHAPTER IV
FINDINGS AND DISCUSSION

This chapter presents the data that was collected during the experimental research. First analysis focuses on the homogeneity of the sample; the second analysis focuses on the validity, reliability, index difficulty, and discriminating power of instruments. And the third analysis represents the result of pre-test and post-test that was done both in experimental and control group.

A. First Analysis

The first analysis was homogeneity test of the sample. That was previous summative score of students of XI-IPS 1 as experimental group and students of XI-IPS 2 as control group. The analysis was meant to get the homogeneous class of XI-IPS 1 and XI-IPS 2. In this study, the homogeneity of the test was measured by comparing the obtained score \( F_{\text{score}} \) with \( F_{\text{table}} \). Thus, if the obtained score \( F_{\text{score}} \) was lower than the \( F_{\text{table}} \) or equal, it could be said that the Ho was accepted. It means those classes were homogeneous. The analysis of homogeneity test could be seen in table I.

<table>
<thead>
<tr>
<th>Variant Sources</th>
<th>Experimental G</th>
<th>Control G</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sum</td>
<td>3285.00</td>
<td>3230.00</td>
</tr>
<tr>
<td>N</td>
<td>43</td>
<td>43</td>
</tr>
<tr>
<td>X</td>
<td>76.40</td>
<td>75.12</td>
</tr>
<tr>
<td>Variants (s2)</td>
<td>32.53</td>
<td>24.39</td>
</tr>
<tr>
<td>Standart deviation (s)</td>
<td>5.70</td>
<td>4.94</td>
</tr>
</tbody>
</table>

By knowing the mean and the variance, the researcher was able to test the similarity of the two variants with the homogeneity test from students’ previous score between XI-IPS 1 and XI-IPS 2. The computation of the test of homogeneity is as follows:
\[
F = \frac{\text{Biggest Variance}}{\text{Smallest Variance}} \\
= \frac{32,53}{24,39} \\
= 1.334
\]

On a 5\% with df numerator (nb - 1) = 43 – 1 = 42 and df denominator (nk – 1) = 43 – 1 = 42, it was found \( F_{\text{table}} = 1.70 \). Because of \( F_{\text{score}} \leq F_{\text{table}}/1.334 \leq 1.70 \), so it could be concluded that both XI IPS-1 and XI IPS-2 had no differences. The result showed that both groups had similar variants (homogenous).

**B. Second Analysis**

The second analysis was meant to get a valid and reliable instrument for investigation. Try out tests were conducted for XI IPS-3 of MAN Kendal. Class XI IPS-3 consisted of 43 respondents. They were given a try out using the instrument that will be used in control and experiment class. The following is the interpretation of the try out test to find out the validity and reliability of the instrument.

**1. Validity of Try Out Test**

The reading test consists of twenty item numbers. From the try out test that was conducted, it was obtained that all reading item numbers were valid. For example, the item analysis of relevance was obtained \( r_{xy} \) 0.54 for \( \alpha = 5 \% \) with \( N = 43 \). It would be obtained 0.3008. Since the result of the instruments validity was higher than the critical score, it was considered that the instruments were valid. The complete computation and the sample of computation are as below.

**The Computation of Item Validity Using Jigsaw**

Formula:

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

Criteria:

The item is valid if \( r_{xy} > r_{\text{table}} \)

Calculation:
Below is the example of the item validity of number 1.

<table>
<thead>
<tr>
<th>NO</th>
<th>CODE</th>
<th>X</th>
<th>Y</th>
<th>X²</th>
<th>Y²</th>
<th>XY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>T-9</td>
<td>1</td>
<td>20</td>
<td>1</td>
<td>400</td>
<td>20</td>
</tr>
<tr>
<td>2</td>
<td>T-20</td>
<td>1</td>
<td>20</td>
<td>1</td>
<td>400</td>
<td>20</td>
</tr>
<tr>
<td>3</td>
<td>T-11</td>
<td>1</td>
<td>20</td>
<td>1</td>
<td>400</td>
<td>20</td>
</tr>
<tr>
<td>4</td>
<td>T-10</td>
<td>1</td>
<td>20</td>
<td>1</td>
<td>400</td>
<td>20</td>
</tr>
<tr>
<td>5</td>
<td>T-2</td>
<td>1</td>
<td>20</td>
<td>1</td>
<td>400</td>
<td>20</td>
</tr>
<tr>
<td>6</td>
<td>T-30</td>
<td>1</td>
<td>19</td>
<td>1</td>
<td>361</td>
<td>19</td>
</tr>
<tr>
<td>7</td>
<td>T-19</td>
<td>1</td>
<td>19</td>
<td>1</td>
<td>361</td>
<td>19</td>
</tr>
<tr>
<td>8</td>
<td>T-25</td>
<td>1</td>
<td>19</td>
<td>1</td>
<td>361</td>
<td>19</td>
</tr>
<tr>
<td>9</td>
<td>T-40</td>
<td>1</td>
<td>19</td>
<td>1</td>
<td>361</td>
<td>19</td>
</tr>
<tr>
<td>10</td>
<td>T-36</td>
<td>1</td>
<td>19</td>
<td>1</td>
<td>361</td>
<td>19</td>
</tr>
<tr>
<td>11</td>
<td>T-1</td>
<td>1</td>
<td>19</td>
<td>1</td>
<td>361</td>
<td>19</td>
</tr>
<tr>
<td>12</td>
<td>T-13</td>
<td>1</td>
<td>19</td>
<td>1</td>
<td>361</td>
<td>19</td>
</tr>
<tr>
<td>13</td>
<td>T-24</td>
<td>1</td>
<td>19</td>
<td>1</td>
<td>361</td>
<td>19</td>
</tr>
<tr>
<td>14</td>
<td>T-4</td>
<td>1</td>
<td>19</td>
<td>1</td>
<td>361</td>
<td>19</td>
</tr>
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<td>15</td>
<td>T-17</td>
<td>1</td>
<td>18</td>
<td>1</td>
<td>324</td>
<td>18</td>
</tr>
<tr>
<td>16</td>
<td>T-6</td>
<td>1</td>
<td>18</td>
<td>1</td>
<td>324</td>
<td>18</td>
</tr>
<tr>
<td>17</td>
<td>T-3</td>
<td>1</td>
<td>17</td>
<td>1</td>
<td>289</td>
<td>17</td>
</tr>
<tr>
<td>18</td>
<td>T-22</td>
<td>1</td>
<td>17</td>
<td>1</td>
<td>289</td>
<td>17</td>
</tr>
<tr>
<td>19</td>
<td>T-39</td>
<td>1</td>
<td>16</td>
<td>1</td>
<td>256</td>
<td>16</td>
</tr>
<tr>
<td>20</td>
<td>T-26</td>
<td>1</td>
<td>16</td>
<td>1</td>
<td>256</td>
<td>16</td>
</tr>
<tr>
<td>21</td>
<td>T-32</td>
<td>1</td>
<td>16</td>
<td>1</td>
<td>256</td>
<td>16</td>
</tr>
<tr>
<td>22</td>
<td>T-7</td>
<td>1</td>
<td>16</td>
<td>1</td>
<td>256</td>
<td>16</td>
</tr>
<tr>
<td>23</td>
<td>T-18</td>
<td>1</td>
<td>15</td>
<td>1</td>
<td>225</td>
<td>15</td>
</tr>
<tr>
<td>24</td>
<td>T-35</td>
<td>1</td>
<td>15</td>
<td>1</td>
<td>225</td>
<td>15</td>
</tr>
<tr>
<td>25</td>
<td>T-42</td>
<td>1</td>
<td>15</td>
<td>1</td>
<td>225</td>
<td>15</td>
</tr>
<tr>
<td>26</td>
<td>T-41</td>
<td>0</td>
<td>15</td>
<td>0</td>
<td>225</td>
<td>0</td>
</tr>
<tr>
<td>27</td>
<td>T-23</td>
<td>0</td>
<td>15</td>
<td>0</td>
<td>225</td>
<td>0</td>
</tr>
<tr>
<td>28</td>
<td>T-5</td>
<td>1</td>
<td>13</td>
<td>1</td>
<td>169</td>
<td>13</td>
</tr>
<tr>
<td>29</td>
<td>T-43</td>
<td>1</td>
<td>13</td>
<td>1</td>
<td>169</td>
<td>13</td>
</tr>
<tr>
<td>30</td>
<td>T-38</td>
<td>1</td>
<td>12</td>
<td>1</td>
<td>144</td>
<td>12</td>
</tr>
<tr>
<td>31</td>
<td>T-31</td>
<td>1</td>
<td>12</td>
<td>1</td>
<td>144</td>
<td>12</td>
</tr>
<tr>
<td>32</td>
<td>T-27</td>
<td>1</td>
<td>12</td>
<td>1</td>
<td>144</td>
<td>12</td>
</tr>
<tr>
<td>33</td>
<td>T-12</td>
<td>1</td>
<td>11</td>
<td>1</td>
<td>121</td>
<td>11</td>
</tr>
<tr>
<td>34</td>
<td>T-29</td>
<td>1</td>
<td>11</td>
<td>1</td>
<td>121</td>
<td>11</td>
</tr>
<tr>
<td>35</td>
<td>T-33</td>
<td>0</td>
<td>11</td>
<td>0</td>
<td>121</td>
<td>0</td>
</tr>
<tr>
<td>36</td>
<td>T-15</td>
<td>1</td>
<td>10</td>
<td>1</td>
<td>100</td>
<td>10</td>
</tr>
<tr>
<td>37</td>
<td>T-8</td>
<td>1</td>
<td>9</td>
<td>1</td>
<td>81</td>
<td>9</td>
</tr>
<tr>
<td>38</td>
<td>T-37</td>
<td>0</td>
<td>9</td>
<td>0</td>
<td>81</td>
<td>0</td>
</tr>
<tr>
<td>39</td>
<td>T-14</td>
<td>0</td>
<td>9</td>
<td>0</td>
<td>81</td>
<td>0</td>
</tr>
<tr>
<td>40</td>
<td>T-34</td>
<td>0</td>
<td>8</td>
<td>0</td>
<td>64</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>T-16</td>
<td>0</td>
<td>8</td>
<td>0</td>
<td>64</td>
<td>0</td>
</tr>
<tr>
<td>---</td>
<td>------</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>41</td>
<td>T-21</td>
<td>1</td>
<td>6</td>
<td>1</td>
<td>36</td>
<td>6</td>
</tr>
<tr>
<td>42</td>
<td>T-28</td>
<td>0</td>
<td>5</td>
<td>0</td>
<td>25</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Sum</td>
<td>35</td>
<td>639</td>
<td>35</td>
<td>10289</td>
<td>559</td>
</tr>
</tbody>
</table>

Where: \(N = 43\)

\[X^2 = 35\]

\[Y = 639\]

\[\Sigma XY = 559\]

\[
T_{xy} = \frac{43(639) - (35)(639)}{\sqrt{(43(2E) - (2E)^2)(43(10289) - (639)^2)}}
\]

\[= 0.54\]

Because of \(r_{xy} > r_{table}\), so item number 1 is valid.

2. Reliability of Try Out Test

After validity items had been done, the next analysis was to test the reliability of instrument. It was done to find out whether a test had higher critical score and gave the stability or consistency of the test scores or not. From the computation of reliability of the try out instruments using Jigsaw, it was obtained 0.83, for \(\alpha = 5\%\) with \(N = 43\). It was obtained 0.3008. It could be concluded that the instruments that were used in this research was reliable. The complete analysis and the computation as follow:

The Computation of Reliability Using Jigsaw

Formula:

\[
r_{11} = \left(\frac{k}{k-1}\right) \left(1 - \frac{\sum \sigma_i^2}{\sigma_{xy}^2}\right)
\]

Criteria:
The try out is reliable if \(r_{11} > r_{table}\)

Calculation:

\[
\sigma_i^2 = \frac{\sum Y^2 - \frac{(Y)^2}{N}}{N}
\]

\[
= \frac{10289 - \frac{639^2}{43}}{43}
\]
\[ P = \frac{f_B}{f_A} = \frac{35}{43} = 0.8 \]

\[ q = \frac{f_S}{f_A} = \frac{8}{43} = 0.2 \]

\[ \sum pq = 3.129 \]

Index Reliability

\[ r_{II} = \left( \frac{21}{21 - 1} \right) \left[ 1 - \frac{3.129}{18.447} \right] \]

\[ = 0.83 \]

The result shows that 0.83 is more than 0.3008; it meant that the items of instrument were valid.

3. **Discriminating Power of Try Out Test**

The discriminating power of the twenty items analysis of reading was satisfied. It showed that all speaking items had strong discrimination. The complete analysis and the sample of computation as follow.

**The Computation of Discriminating Power**

Formula:

\[ D = \frac{B_A}{f_A} - \frac{B_B}{f_B} = P_A - P_B \]

Criteria:

\[ D = 0.00 - 0.20 \quad : \text{Poor} \]

\[ D = 0.21 - 0.40 \quad : \text{Satisfactory} \]

\[ D = 0.41 - 0.70 \quad : \text{Good} \]

\[ D = 0.71 - 1.00 \quad : \text{Excellent} \]

Calculation:
Below is the example of the computation of discriminating power on item number 1.

\begin{align*}
B_A &= 21 \\
J_A &= 21 \\
B_B &= 14 \\
J_B &= 22 \\

P_A &= \frac{B_A}{J_A} = \frac{21}{21} = 1 \\

P_B &= \frac{B_B}{J_B} = \frac{14}{22} = 0.64 \\

D &= P_A - P_B = 1 - 0.64 = 0.36
\end{align*}

The result obtained D = 0.36
Because of the result is between 0.21 – 0.40. So the item number 1 is satisfactory.

4. Difficulty Level of Try Out Test

From the computation of difficulty level of the twenty items analysis of reading, it was found that the difficulty level is easy. So, it could be concluded that the final total items analysis for the instruments were categorized satisfactory. The sample of computation is as follow.

The Computation of Difficulty Index

Formula:

\[ P = \frac{B}{JS} \]

Criteria:

- 0.00 ≤ P < 0.30 is difficult
- 0.30 ≤ P < 0.70 is medium
- 0.70 ≤ P < 1.00 is easy

Calculation:

Below is the example of the computation of difficulty level on item number 3.

\[ B = 35 \]
\[ JS = 43 \]

So:
P = \frac{35}{43} = 0.8

The result obtained P = 0.8

Because of the result is between 0.70 – 100, so the item number 1 is easy.

C. Third Analysis

The second analysis represents the result of pre-test and post-test that was done both in experimental and control group. This analysis will answer the research question “Is Jigsaw effective to improve students’ reading skill in narrative text?”. We can conclude Jigsaw is effective when the result of post test of the experimental class (using Jigsaw technique) and control class (using conventional technique) has significant differences or the assumption that those classes is equal is not fulfilled.

Before the researcher tested the hypothesis that had been mentioned in the chapter two, the researcher analyzed and tested hypothesis prerequisites which contained of normality test and homogeneity test. Second analysis dealt with normality test, homogeneity test, and t-test (test of difference two variants) in pre-test and post-test.

1. Analysis of Pre-test

The experimental group (XI IPS-1) was given a pre-test on February 8, 2011 and control group (XI IPS-2) was given a pre-test on February 7, 2011. They were asked to answer multiple-choice test that were given to them.

a. Test of Normality

Test of normality was used to find out whether data of control and experimental group which had been collected from the research come from normal distribution normal or not. The result computation of Chi-square \(X^2\) then was compared with table of Chi-square
(\(X^2_{\text{table}}\)) by using 5% alpha of significance. If \(X^2_{\text{score}} < X^2_{\text{table}}\) means that the data spread of research result distributed normally.

Based on the research result of XI IPS-2 students in the control group before they were taught reading narrative text without Jigsaw, they reached the maximum score 70 and minimum score 30. The stretches of score were 40. So, there were 7 classes with length of classes 6. From the computation of frequency distribution, it was found \((\Sigma f_i x_i) = 2051.5\), and \((\Sigma f_i x_i^2) = 102797\). So, the average score (\(\bar{X}\)) was 47.709 and the standard deviation (S) was 10.824. After counting the average score and standard deviation, table of observation frequency was needed to measure Chi-square (\(X^2_{\text{score}}\)).

**Table IV. 1 Table of the Observation Frequency of Control Group**

<table>
<thead>
<tr>
<th>Class</th>
<th>Bk</th>
<th>Z</th>
<th>P(Z)</th>
<th>Ld</th>
<th>Ei</th>
<th>Oi</th>
<th>(\frac{(O_i - E_i)^2}{E_i})</th>
</tr>
</thead>
<tbody>
<tr>
<td>29,5</td>
<td>-1,68</td>
<td>-0,4537</td>
<td>0,0834</td>
<td>3,8</td>
<td>5</td>
<td>0,5569</td>
<td></td>
</tr>
<tr>
<td>30 – 35</td>
<td>35,5</td>
<td>-1,13</td>
<td>-0,3703</td>
<td>0,1534</td>
<td>6,6</td>
<td>9</td>
<td>0,8748</td>
</tr>
<tr>
<td>36 – 41</td>
<td>41,5</td>
<td>-0,57</td>
<td>-0,2169</td>
<td>0,2092</td>
<td>9,0</td>
<td>11</td>
<td>0,4471</td>
</tr>
<tr>
<td>42 – 47</td>
<td>47,5</td>
<td>-0,02</td>
<td>-0,0077</td>
<td>0,2114</td>
<td>9,1</td>
<td>6</td>
<td>1,0499</td>
</tr>
<tr>
<td>48 – 53</td>
<td>53,5</td>
<td>0,53</td>
<td>0,2037</td>
<td>0,1583</td>
<td>6,8</td>
<td>3</td>
<td>2,1297</td>
</tr>
<tr>
<td>54 – 59</td>
<td>59,5</td>
<td>1,09</td>
<td>0,3620</td>
<td>0,0879</td>
<td>3,8</td>
<td>6</td>
<td>1,3052</td>
</tr>
<tr>
<td>60 – 65</td>
<td>65,5</td>
<td>1,64</td>
<td>0,4499</td>
<td>0,0362</td>
<td>1,55462</td>
<td>3</td>
<td>1,3438</td>
</tr>
<tr>
<td>66 – 71</td>
<td>71,5</td>
<td>2,20</td>
<td>0,4860</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**\(X^2 = 7,7074\)**

Based on the Chi-square table (\(X^2_{\text{table}}\)) for 5% alpha of significance with df 7 – 3 = 4, it was found \(X^2_{\text{table}} = 9.49\). Because of \(X^2_{\text{score}} < X^2_{\text{table}}\), so the initial data of control group distributed normally.
While from the result of XI IPS’2 students in experimental group, before they were taught reading narrative text by using role play, was found that the maximum score was 75 and minimal score was 35. The stretches of score were 40. So, there were 7 classes with length of classes 6. From the computation of frequency distribution, it was found $(\Sigma f_i x_i) = 2224.5$, and $(\Sigma f_i x_i^2) = 119689$. So, the average score $(\bar{X})$ was 51.733 and the standard deviation ($S$) was 10.476. After counting the average score and standard deviation, table of observation frequency was needed to measure Chi-square ($X^2$).

Table IV. 2 Table of the Observation Frequency of Experimental Group

<table>
<thead>
<tr>
<th>Class</th>
<th>Bk</th>
<th>$Z_i$</th>
<th>$P(Z_i)$</th>
<th>Ld</th>
<th>Ei</th>
<th>Oi</th>
<th>$(O_i - E_i)^2 \over E_i$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>34,5</td>
<td>-1,64</td>
<td>0.0918</td>
<td>3,9</td>
<td>8</td>
<td>4,1574</td>
<td></td>
</tr>
<tr>
<td>35 – 40</td>
<td>40,5</td>
<td>-1,07</td>
<td>0,1669</td>
<td>7,2</td>
<td>8</td>
<td>0,0944</td>
<td></td>
</tr>
<tr>
<td>41 – 46</td>
<td>46,5</td>
<td>-0,50</td>
<td>0,2205</td>
<td>9,5</td>
<td>6</td>
<td>1,2776</td>
<td></td>
</tr>
<tr>
<td>47 – 52</td>
<td>52,5</td>
<td>0,07</td>
<td>0,2117</td>
<td>9,1</td>
<td>9</td>
<td>0,0011</td>
<td></td>
</tr>
<tr>
<td>53 – 58</td>
<td>58,5</td>
<td>0,65</td>
<td>0,1477</td>
<td>6,3</td>
<td>6</td>
<td>0,0193</td>
<td></td>
</tr>
<tr>
<td>59 – 64</td>
<td>64,5</td>
<td>1,22</td>
<td>0,0749</td>
<td>3,2</td>
<td>5</td>
<td>0,9850</td>
<td></td>
</tr>
<tr>
<td>65 – 70</td>
<td>70,5</td>
<td>1,79</td>
<td>0,0276</td>
<td>1,2</td>
<td>1</td>
<td>0,0291</td>
<td></td>
</tr>
<tr>
<td>71 – 76</td>
<td>76,5</td>
<td>2,36</td>
<td>0,4910</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$X^2 = 6.5348$

Based on the Chi-square table ($X^2_{table}$) for 5% alpha of significance with df $7 - 3 = 4$, it was found $X^2_{table} = 9.49$. Because of $X^2_{score} < X^2_{table}$, so the initial data of experimental group distributed normally.

b. Test of Homogeneity

Test of homogeneity was done to know whether sample in the research come from population that had same variance or not. In this
study, the homogeneity of the test was measured by comparing the obtained score ($F_{\text{score}}$) with $F_{\text{table}}$. Thus, if the obtained score ($F_{\text{score}}$) was lower than the $F_{\text{table}}$ or equal, it could be said that the $H_0$ was accepted. It meant that the variance was homogeneous. The analysis of homogeneity test could be seen in table IV. 3.

**Table. IV. 3 Test of Homogeneity (Pre-test)**

<table>
<thead>
<tr>
<th>Variant Sources</th>
<th>Experimental G</th>
<th>Control G</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sum</td>
<td>2060,00</td>
<td>2055,00</td>
</tr>
<tr>
<td>$n$</td>
<td>43</td>
<td>43</td>
</tr>
<tr>
<td>$\bar{x}$</td>
<td>47,91</td>
<td>47,79</td>
</tr>
<tr>
<td>Variants ($s^2$)</td>
<td>101,4673</td>
<td>102,7409</td>
</tr>
<tr>
<td>Standard deviation ($s$)</td>
<td>10,07</td>
<td>10,14</td>
</tr>
</tbody>
</table>

By knowing the mean and the variance, the writer was able to test the similarity of the two variants in the pre-test between experimental and control group. The computation of the test of homogeneity as follows:

$$F = \frac{\text{Biggest Variance}}{\text{Smallest Variance}}$$

$$= \frac{102,7409}{101,4673}$$

$$= 1,013$$

On a 5% with df numerator ($nb - 1$) = 43 – 1 = 42 and df denominator ($nk – 1$) = 43 – 1 = 42, it was found $F_{\text{table}} = 1.67$. Because of $F_{\text{score}} \leq F_{\text{table}}$, so it could be concluded that both experimental and control group had no differences. The result showed both groups had similar variants (homogenous).

c. **Test of difference two variants in pre-test between experiment and control group**

After counting standard deviation and variance, it could be concluded that both groups have no differences in the test of similarity between two variances in pre-test score. So, to differentiate whether the students’ results of reading narrative text in experimental and
control group were significant or not, the writer used t-test to test the hypothesis that had been mentioned in the chapter two. The writer used formula:

\[ t = \frac{x_1 - x_2}{s \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}} \]

Where:

\[ S = \sqrt{\frac{(n_1 - 1)s_1^2 + (n_2 - 1)s_2^2}{n_1 + n_2 - 2}} \]

Based on table IV. 3, first the writer had to find out S by using the formula above:

\[ S = \sqrt{\frac{(43 - 1)101,4673 + (43 - 1)102,7409}{43 + 43 - 2}} \]

\[ = 10,1047 \]

After S was found, the next step was to measure t-test:

\[ t = \frac{47.91 - 47.79}{10.1047 \sqrt{\frac{1}{43} + \frac{1}{43}}} \]

\[ = 0.053 \]

After getting t-test result, then it would be consulted to the critical score of \( t_{table} \) to check whether the difference is significant or not. For \( a = 5\% \) with \( df = 43 + 43 - 2 = 84 \), it was found \( t_{table(0.95)(84)} = 1.99 \). Because of \( t_{score} < t_{table} \), so it could be concluded that there was no significance of difference between the experimental and control group. It means that both experimental and control groups had same condition before getting treatments.

2. Analysis of Post-test

The experimental group was given post test on February 18, 2011 and control group was given a post test on February 12, 2011.
Post-test was conducted after all treatments were done. *Jigsaw* was used as technique in the teaching of reading narrative text to students in experimental group. While for students in control group, they were given treatments without *Jigsaw*. Post-test was aimed at measuring students’ ability after they got treatments. They were asked to answer multiple-choice test that were given to them.

**a. Test of Normality**

Test of normality was used to find out whether data of control and experimental group, which had been collected after they got treatments, come from normal distribution normal or not. The formula, that was used, was Chi-square. The computation result of Chi-square ($X^2_{\text{score}}$) then was compared with table of Chi-square ($X^2_{\text{table}}$) by using 5% alpha of significance. If $X^2_{\text{score}} < X^2_{\text{table}}$ meant that the data spread of research result distributed normally.

Based on the research result of XI IPS-2 students in the control group after they got usual treatments in the teaching of reading narrative text, they reached the maximum score 95 and minimum score 65. The stretches of score were 30. So, there were 7 classes with length of classes 5. From the computation of frequency distribution, it was found \( \sum f_i x_i = 3286 \) and \( \sum f_i x_i^2 = 253122 \). So, the average score (\( \bar{X} \)) was 76.4186 and the standard deviation (S) was 6.91869. It meant that there was an improvement of students’ score after they got treatments. After counting the average score and standard deviation, table of observation frequency was needed to measure Chi-square ($X^2_{\text{score}}$).
Table IV. 4 Table of the Observation Frequency of Control Group

<table>
<thead>
<tr>
<th>Kelas</th>
<th>Bk</th>
<th>Z_i</th>
<th>P(Z_i)</th>
<th>Luas Daerah</th>
<th>Ei</th>
<th>Oi</th>
<th>( \frac{(O_i - E_i)^2}{E_i} )</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>65 – 69</td>
<td>64,5</td>
<td>-1,72</td>
<td>-0,4575</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>70</td>
<td>69,5</td>
<td>-1,00</td>
<td>-0,3413</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>65 – 69</td>
<td>74,5</td>
<td>-0,28</td>
<td>-0,1092</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>79</td>
<td>79,5</td>
<td>0,45</td>
<td>0,1720</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>84,5</td>
<td>84,5</td>
<td>1,17</td>
<td>0,3786</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>89</td>
<td>89,5</td>
<td>1,89</td>
<td>0,4707</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>94,5</td>
<td>94,5</td>
<td>2,61</td>
<td>0,4955</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>99,5</td>
<td>99,5</td>
<td>3,34</td>
<td>0,4996</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\[ X^2 = 4.7212 \]

Based on the Chi-square table \( X^2_{\text{table}} \) for 5% alpha of significance with \( dk \ 7 - 3 = 4 \), it was found \( X^2_{\text{table}} = 9.49 \). Because of \( X^2_{\text{score}} < X^2_{\text{table}} \), so the data of control group after getting treatments distributed normally.

While from the result of XI IPS-1 students in experimental group, after they were taught by using Jigsaw, was found that the maximum score was 95 and minimal score was 65. The stretches of score were 30. So, there were 7 classes with length of classes 5. From the computation of frequency distribution, it was found \( (\sum f_i x_i) = 3446 \), and \( (\sum f_i x_i^2) = 278362 \). So, the average score \( (\bar{X}) \) was 80.1395 and the standard deviation \( (S) \) was 7.23938. By seeing the average score of students in experimental group, it could be concluded that there was an improvement of students’ score after they got treatments by using Jigsaw. After counting the average score and standard deviation, table of observation frequency was needed to measure Chi-square \( X^2_{\text{score}} \).
Table IV. 5 Table of the Observation Frequency of Experimental Group

<table>
<thead>
<tr>
<th>Class</th>
<th>Bk</th>
<th>Z\text{i}</th>
<th>P(Z\text{i})</th>
<th>Luas Daerah</th>
<th>Ei</th>
<th>Oi</th>
<th>\frac{(O_i - E_i)^2}{E_i}</th>
</tr>
</thead>
<tbody>
<tr>
<td>65 – 69</td>
<td>64,5</td>
<td>-2,16</td>
<td>-0,4846</td>
<td>0,0555</td>
<td>2,4</td>
<td>5</td>
<td>2,8691</td>
</tr>
<tr>
<td>70 – 74</td>
<td>69,5</td>
<td>-1,47</td>
<td>-0,4292</td>
<td>0,1472</td>
<td>6,3</td>
<td>11</td>
<td>3,4494</td>
</tr>
<tr>
<td>75 – 79</td>
<td>74,5</td>
<td>-0,78</td>
<td>-0,2820</td>
<td>0,2468</td>
<td>10,6</td>
<td>10</td>
<td>0,0354</td>
</tr>
<tr>
<td>80 – 84</td>
<td>79,5</td>
<td>-0,09</td>
<td>-0,0352</td>
<td>0,2617</td>
<td>11,3</td>
<td>9</td>
<td>0,4514</td>
</tr>
<tr>
<td>85 – 89</td>
<td>84,5</td>
<td>0,60</td>
<td>0,2265</td>
<td>0,1755</td>
<td>7,5</td>
<td>5</td>
<td>0,8586</td>
</tr>
<tr>
<td>90 – 94</td>
<td>89,5</td>
<td>1,29</td>
<td>0,4020</td>
<td>0,0744</td>
<td>3,2</td>
<td>2</td>
<td>0,4485</td>
</tr>
<tr>
<td>95 – 99</td>
<td>94,5</td>
<td>1,98</td>
<td>0,4764</td>
<td>0,0199</td>
<td>0,9</td>
<td>1</td>
<td>0,0243</td>
</tr>
<tr>
<td>99,5</td>
<td>2,67</td>
<td>0,4963</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\[ X^2 = 8,1367 \]

Based on the Chi-square table \( X^2_{\text{table}} \) for 5% alpha of significance with df \( 7 - 3 = 4 \), it was found \( X^2_{\text{table}} = 9.49 \). Because of \( X^2_{\text{score}} < X^2_{\text{table}} \), so the data of experimental group after getting treatments distributed normally.

b. Test of Homogeneity

The writer determined the mean and variance of the students’ score either in experimental or control group. By knowing the mean and variance, the writer was able to test the similarity of the two variance in the post-test between experimental and control group.

Table. IV. 6 Test of Homogeneity (Post-test)

<table>
<thead>
<tr>
<th>Variants Sources</th>
<th>Experimental G</th>
<th>Control G</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sum</td>
<td>3360,0</td>
<td>3200,0</td>
</tr>
<tr>
<td>n</td>
<td>43</td>
<td>43</td>
</tr>
<tr>
<td>( \bar{x} )</td>
<td>78,14</td>
<td>74,42</td>
</tr>
<tr>
<td>Variants ( (S^2) )</td>
<td>52,41</td>
<td>47,87</td>
</tr>
<tr>
<td>Standart deviation (S)</td>
<td>7,24</td>
<td>6,92</td>
</tr>
</tbody>
</table>
The computation of the test of homogeneity as follows:

\[ F = \frac{\text{Biggest Variance}}{\text{Smallest Variance}} \]

\[ = \frac{52.41}{47.87} \]

\[ = 1.095 \]

On a 5% with df numerator (nb - 1) = 43 – 1 = 42 and df denominator (nk – 1) = 43 – 1 = 42, it was found \( F_{\text{table}} = 1.85 \). Because of \( F_{\text{score}} \leq F_{\text{table}} \), so it could be concluded that both experimental and control groups had no differences. The result showed both groups had similar variance (homogenous).

c. Test of difference two variants in post-test between experiment and control group

After counting standard deviation and variance, it could be concluded that both groups have no differences in the test of similarity between two variances in post-test score. So, to differentiate if the students’ results of reading narrative text in experimental and control group after getting treatments were significant or not, the writer used t-test to test the hypothesis that had been mentioned in the chapter two. To see the difference between the experimental and control group, the writer used formula:

\[ t = \frac{x_1 - x_2}{s \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}} \]

Where:

\[ s = \sqrt{\frac{(n_1 - 1)s_1^2 + (n_2 - 1)s_2^2}{n_1 + n_2 - 2}} \]
Based on table IV. 6, first the writer had to find out S by using the formula above:

\[ S = \sqrt{\frac{(43-1)52.41 + (43-1)47.87}{43 + 43 - 2}} \]

\[ = 7.08085 \]

After S was found, the next step was to measure t-test:

\[ t = \frac{78.14 - 74.42}{7.08085 \sqrt{\frac{1}{43} + \frac{1}{43}}} \]

\[ = 2.437 \]

After getting t-test result, then it would be consulted to the critical score of \( t_{table} \) to check whether the difference is significant or not. For \( a = 5\% \) with df \( 43 + 43 - 2 = 84 \), it was found \( t_{table(0.05)(84)} = 1.66 \). Because of \( t_{score} > t_{table} \), so it could be concluded that there was significance of difference between the experimental and control group. It meant that experimental group was better than control group after getting treatments.

Since the obtained t-score was higher than the critical score on the table, the difference was statistically significant. Therefore, based on the computation there was a significance difference students’ achievement among these taught using Jigsaw and these taught without using Jigsaw for the eleventh grade students of MAN Kendal. Teaching reading in narrative text using Jigsaw technique seemed to be more effective than teaching reading in narrative text without using Jigsaw. It can be seen from the result of the test where the students taught reading in narrative text by using Jigsaw got higher scores than the students taught reading in narrative text without Jigsaw.
D. Discussions

The data were obtained from the students’ achievement scores of the test of reading narrative text. They were pre-test and post-test scores from the experimental and control group. The average score for experimental group was 47.91 (pre-test) and 78.14 (post-test). The average score for control group was 47.79 (pre-test) and 74.42 (post-test). The following was the simple tables of pre and post-test students’ average score.

<table>
<thead>
<tr>
<th>No</th>
<th>Group</th>
<th>The Average Percentage of Pre-test</th>
<th>The Average Percentage of Post-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Experimental</td>
<td>47.91</td>
<td>78.14</td>
</tr>
<tr>
<td>2</td>
<td>Control</td>
<td>47.79</td>
<td>74.42</td>
</tr>
</tbody>
</table>

Based on the result on the table above, the data shows that result test in experiment class is higher than result of test in control group. It can be concluded that students in experimental class have higher motivation in learning reading, thus, their achievement in post-test is better.

a. Students’ Condition in Control Group

In this study, source of data that become as control group was class XI IPS-2. In the control group, there was not a new treatment in a teaching learning process. They were given a usual treatment. They were taught reading narrative text using conventional method. By identifying some parts and tenses of narrative text in the teaching learning process, teacher had used a contextual teaching learning method that could not increase students’ reading skill in narrative text. Students could not enjoy in practicing their skill in reading because they only identify those text without practice to use it as its function. It was proven with the control group’s average in the post-test (74.42) which was lower than the experimental group (78.14).
b. Students’ Condition in Experimental Group

1) Analysis Students’ Reading Before Treatment (Pre-test)

In the pre-test, students’ ability in reading narrative text was low. Pre-test was conducted before the treatment. From the result of pre-test, it was known that students faced many difficulties in reading narrative text. Vocabulary, which were used in text still strange in their mind. So students had to open the dictionary every they got difficulty. Students’ ability was in low level when they had to translate the sentence to be a good meaning to answer the question. The other than students also got difficulty about how to answer the question efficiently. To minimize the number of students’ mistakes in their reading, the researcher helped students that found trouble about their text.

2) Analysis Students’ Speaking After Treatment (Post-test)

Based on the analysis of students’ ability, it was found that students’ ability after getting treatment was improved. In the treatment, students conducted Jigsaw in learning narrative text which they tried and learned to translate the sentence to be a good meaning. The vocabulary, sentences’ arrangement, and the way they translate the word were good and relevance to the topic so the meaning were easy to be understood.

The finding that shows students’ ability is namely the increasing of students’ average score. There were still some mistakes that students had made like sentences’ meaning arrangement. But it was very human. So, it could be concluded that the implementation of using Jigsaw as technique in the teaching of reading narrative text was effective. It was proven with students’ average score in experimental group was higher than control group. By considering the students’ final score after getting treatment, the teaching of reading narrative text using Jigsaw as technique was better than without Jigsaw.
Based on t-test analysis that was done, it was found that the t-score (2.437) was higher than t-table by using 5% alpha of significance (1.66). Since $t_{score} > t_{table}$, it proved that there was a significant difference between the improvement of students achievement that was given a new treatment (using Jigsaw) and the improvement of students achievement that was given a usual treatment.

c. The Advantages and Disadvantages of Using Jigsaw in the Teaching of Reading Narrative Text

1) The Advantages of Using Jigsaw in the Teaching of Reading Narrative Text

After conducting the research, there were some advantages of using Jigsaw technique in the teaching of reading narrative text:

a. Teacher easy to teach and students easy to learn. They enjoyed teaching learning using Jigsaw technique.

b. Students were active participants in the learning process because Jigsaw demanded students to communicate one another.

c. Jigsaw was efficient way to learn in the classroom. It meant that students could learn some materials in the one time.

2) The Disadvantages of Using Jigsaw in the Teaching of Reading Narrative Text

The disadvantages were described below:

a. It spent a lot of time, because the students’ skill was too low, they can’t directly translate the sentences of text. They need to open the dictionary so it made long time.

b. It was not easy enough to manage the class, because sometime the students will be noisy when they present their material to other. Their voice can disturb another class.
E. Limitation of Research

The writer realized that there were some barriers in doing this research. The barriers occurred not caused by inability of the researcher but by the limitation of the research like time, fund, and equipment of research.
CHAPTER V

CONCLUSION AND SUGGESTION

5.1 Conclusions

Based on the finding and discussion in chapter IV, it could be concluded that the use of Jigsaw as technique in the teaching of reading narrative text was effective. It was proved by the obtained score of t-test. The t-test showed that t-score 2.437 was higher than t-table 1.66. It means that Ha was accepted and Ho was rejected. Since the t-score was higher than the t-table, there was a significance difference in the achievement between students in class XI IPS-1 who were taught reading narrative text using Jigsaw as technique and students in class XI IPS-2 who were taught reading narrative text without using Jigsaw as technique. The average score of experimental group was 78.14 and the average score of control group was 74.42. It meant that the experimental group (class XI IPS-1) was better than the control group (class XI IPS-2).

5.2 Suggestions

In this study, the writer would like to offer some suggestions to improve the students’ ability in reading comprehension in order to get better result.

a. For teacher

1. Teacher should use Jigsaw as a technique in the teaching of reading narrative text, because it can help students to improve reading skill. By doing Jigsaw, students will not bored in English teaching learning process because students can interact and share one another about their material.

2. Since the use of Jigsaw involves movements in it. The teachers should consider about the time. If it is done too long, the learners may get tired and it will certainly influence the process of
transferring knowledge that the target of the study may not be maximally achieved.

3. Teacher is hoped arrange the teaching and learning process well in order to make students more active and gives respond well to the material.

b. For students

1. *Jigsaw* is very useful for the passive students to improve their abilities of communication or the group skill.

2. Students are hoped to study more and respond in learning process.

3. Students are hoped to improve the students' ability in English

c. For the next researcher

1. Hopefully, there will be an improvement for the next study.

2. The writer hopes other researchers can use it as a reference to conduct their research on the same field. It is really possible that there is another more effective way to teach reading comprehension ability.

5.3 Closing

Praise be to Allah SWT, that has been giving protection and guidance so that this thesis can be finished. The writer realized that this paper is far from perfection. Because of that, criticisms and suggestion from the reader are very expected for the perfection of the paper. Hopefully, this paper is useful for all of us. Amin.
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THE SUBJECTS LIST OF CONTROL GROUP (XI IPS-2)

<table>
<thead>
<tr>
<th>NO</th>
<th>CODE</th>
<th>NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>C – 1</td>
<td>Agus Priyanto</td>
</tr>
<tr>
<td>2</td>
<td>C – 2</td>
<td>Aimur Rizqi Kurniawati</td>
</tr>
<tr>
<td>3</td>
<td>C – 3</td>
<td>Chusnul Talata Farida</td>
</tr>
<tr>
<td>4</td>
<td>C – 4</td>
<td>Dawi Zulfa Amalia</td>
</tr>
<tr>
<td>5</td>
<td>C – 5</td>
<td>Fahlianingsih</td>
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<td>6</td>
<td>C – 6</td>
<td>Fitriyanti</td>
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<td>7</td>
<td>C – 7</td>
<td>Ida Royani</td>
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<td>8</td>
<td>C – 8</td>
<td>Inayatus Solekha</td>
</tr>
<tr>
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LESSON PLAN  
(EXPERIMENTAL CLASS)

Subject : English  
Theme  : Narrative  
Grade  : XI  
Semester : II  
Time allotment : 2 x 45 Minutes  

Standard of competence: Expressing the meaning of monolog/essay text that form: narrative, spoof, and hortatory exposition accurately, fluently and acceptability in daily context to access knowledge.

Basic of competence: Responding the meaning of monolog/essay text by using written language accurately, fluently, and acceptability that form: narrative, spoof, and hortatory exposition.

Indicator:  
- Students are able to identify the meaning of text.  
- Students are able to identify rhetorical steps that form of narrative.

Skill focus : Reading  
Teaching method : Discussion  
Teaching technique : Jigsaw

Activities :  
1) Opening (5 minutes):  
- Teacher greets to all of students.  
- Teacher asks students’ condition.  
- Teacher checks attendance list of students.

2) Main activities (55 minutes):  
BKOF (Building Knowledge of the Field)  
- Teacher asks to students about the legend which is their like.  
- Teacher explains that the legend includes into narrative.

MOT (Modeling of Text)  
- Teacher mentions and explains about language features of narrative text.  
- Teacher gives example about language feature in the text.

JCOT (Join Construction of the Text)  
- Teacher divides students into 6 groups, each group consist of 5-6 persons.  
- Teacher gives narrative text to each group with the topic differences for each person.  
- Teacher gives times to students to read and understand of the narrative text which their have.  
- Teacher asks students to make some groups agree with the topic which same (expert groups).  
- Teacher asks students to identify topic, parts of narrative text and language features of narrative text in the expert groups and every students have to write down on the paper as the material for the report in the initial group.  
- Teacher asks students to come back to the initial groups.
Teacher asks students to report each their topic to another student.

**ICOT (Individual Construction of Text)**

- Teacher gives the feedback to students about the material.

3) **Closing (30 minutes):**

- Teacher gives the evaluation sheet to the students.
- Teacher closes the lesson by greeting.

**Media**

- Picture, paper, whiteboard and board marker.

**Sources**


**Assessment**

- **Form**: Written.
- **Technique**: Students are assigned to choose answer from multiple choices and essay test.
- **Instrument**: Test

**Scoring guide**

a. Every correct answer scored 1
b. Maximum score 20 x 5 = 100
c. Maximum Grade 100
d. The students score: Achievement score

**Summary the material**

**Language Features of Narrative:**

1. A narrative focuses on specific participants.
2. There are many action verbs, verbal and mental processes.
3. Direct and indirect speeches are often used.
4. It usually uses Past Tense.
5. Linking words are used, related with time.
6. There are sometimes some dialogs and the tense can change.
7. Descriptive language is used to create listener's or reader's imagination.
8. Temporal conjunctions are also used.

**Some parts of narrative text**

- **Orientation**
  It is about the opening paragraph where the characters of the story are introduced.
- **Complication**
  It is where the problems in the story developed.
- **Resolution**
  It is where the problems in the story are solved.

The example of narrative text:

**The Legend of Karimunjava Island**
Once upon a time in Muria Mountain, there lived the family of Sunan Muria. Amir Hasan or called as Sunan Nyamplungan is the son of Sunan Muria.

He was very spoiled by his mother. Because of that, he became a naughty boy.

Then his father, Sunan Muria asked him to study in Kudus. He studied Islamic religion to his uncle, Sunan Kudus. After some time, he became an obedient young man. Sunan Muria was very proud of him.

One day, Sunan Muria asked Amir Hasan to go to somewhere to spread Islamic religion. His father asked him to go to an Island that could be seen from Muria Mountain. It was on the west - north of Jepara. This Island seemed to be fade (kremun-kremun in javanese). And from that time, people called the island as Karimunjava Island.

Amir Hasan followed by his mate went to Karimunjava Island. They sailed to the Island day and night and finally they reached the Island. Then they did what his father said. Amir Hasan and his people lived in the island ever after.

Adopted from
http://englishsuperx.wordpress.com

Known by:  Researcher
English Teacher,

Dra. Rini Fayati  M. Yusuf Mauludi
NIP. 196612142000032001  063411007
LESSON PLAN
(CONTROL CLASS)

Subject : English
Theme : Narrative
Grade : XI
Semester : II
Time allotment : 2 x 45 Minutes

Standard of competence: Expressing the meaning of monolog/essay text that form: narrative, spoof, and hortatory exposition accurately, fluently and acceptability in daily context to access knowledge.

Basic of competence : Responding the meaning of monolog/essay text by using written language accurately, fluently, and acceptability that form: narrative, spoof, and hortatory exposition.

Indicator :
- Students are able to identify the meaning of text.
- Students are able to identify rhetorical steps that form of narrative.

Skill focus : Reading
Teaching method : Discussion
Activities :

1) Opening (5 minutes):
   - Teacher greets to all of students.
   - Teacher asks students’ condition.
   - Teacher checks attendance list of students.

2) Main activities (55 minutes):
   BKOF (Building Knowledge of the Text)
   - Teacher asks to students about the story which is their like.
   - Teacher looks the pictures about story which will be discussed and students have to guess that pictures.
   - Teacher explains that the story includes into narrative.

   MOT (Modeling of Text)
   - Teacher explains the definition of narrative text and some parts of narrative text.
   - Teacher gives an example of narrative text.
   - Teacher asks students to show parts of narrative text agree with explanation.
   - Teacher gives some narrative texts to the students and students have to identify the narrative texts.

   JCOT (Join Construction of the Text)
   - Teacher asks some students to write down the result on the white board then it discussed together.
   - Teacher gives times to students to ask about the difficult words.

   ICOT (Individual Construction of Text)
   - Teacher gives evaluation about the topic

3) Closing (30 minutes):
   - Teacher gives the evaluation sheet to the students.
   - Teacher closes the lesson by greeting.
Media: Picture, paper, whiteboard and board marker.

Sources:

Assessment:
- Form: Written.
- Technique: Students are assigned to choose answer from multiple choices and essay test.
- Instrument: Test

Scoring guide:
e. Every correct answer scored 1
f. Maximum score 20 x 5 = 100
g. Maximum Grade 100
h. The students score: Achievement score

Summary the material:

Narrative is to amuse, entertain and to deal with an actual or vicarious experience in different ways. Narrative deals with problematic events, which lead to a crisis or turning point of some kind, which in turn finds a resolution.

Some parts of narrative text
- Orientation
  It is about the opening paragraph where the characters of the story are introduced.
- Complication
  It is where the problems in the story developed.
- Resolution
  It is where the problems in the story are solved.

The example of narrative text:

**The Smartest Parrot**

Once upon time, a man had a wonderful parrot. There was no other parrot like it. The parrot could say every word, except one word. The parrot would not say the name of the place where it was born. The name of the place was Catano.

The man felt excited having the smartest parrot but he could not understand why the parrot would not say Catano. The man tried to teach the bird to say Catano however the bird kept not saying the word.

At the first, the man was very nice to the bird but then he got very angry. “You stupid bird!” pointed the man to the parrot. “Why can’t you say the word? Say Catano! Or I will kill you” the man said angrily. Although he tried hard to teach, the parrot would not say it. Then the man got so angry and shouted to the bird over and over; “Say Catano or I’ll kill you”. The
bird kept not to say the word of Catano.

One day, after he had been trying so many times to make the bird say Catano, the man really got very angry. He could not bear it. He picked the parrot and threw it into the chicken house. There were four old chickens for next dinner “You are as stupid as the chickens. Just stay with them” Said the man angrily. Then he continued to humble; “You know, I will cut the chicken for my meal. Next it will be your turn, I will eat you too, stupid parrot”. After that he left the chicken house.

The next day, the man came back to the chicken house. He opened the door and was very surprised. He could not believe what he saw at the chicken house. There were three death chickens on the floor. At the moment, the parrot was standing proudly and screaming at the last old chicken; “Say Catano or I’ll kill you”.

Adapted From English in focus for grade XI Senior High School

Known by: English Teacher,

Researcher

Dra. Rini Fayati
NIP. 196612142000032001

M. Yusuf Mauludi
063411007
LESSON PLAN
(EXPERIMENTAL CLASS)

Subject : English
Theme : Narrative
Grade : XI
Semester : II
Time allotment : 2 x 45 Minutes

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Skill focus : Reading
Teaching method : Discussion
Teaching technique : Jigsaw
Activities :

1) Opening (5 minutes):
- Teacher greets to all of students.
- Teacher asks students’ condition.
- Teacher checks attendance list of students.

2) Main activities (55 minutes):

   BKOF (Building Knowledge of the Field)
   - Teacher asks to students about the story which is their like.
   - Teacher looks the pictures about story which will be discussed and students have to guess that pictures.
   - Teacher explains that the story includes into narrative.

   MOT (Modeling of Text)
   - Teacher explains the definition of narrative text and some parts of narrative text.
   - Teacher gives an example of narrative text.

   JCOT (Join Construction of the Text)
   - Teacher divides students into 6 groups, each group consist of 5-6 persons.
   - Teacher gives narrative text to each group with the topic differences for each person.
   - Teacher gives times to students to read and understand of the narrative text which their have.
   - Teacher asks students to make some groups agree with the topic which same (expert groups).
   - Teacher asks students to identify topic and parts of narrative text in the expert groups and every student has to write down on the paper as the material for the report in the initial group.
Teacher asks students to come back to the initial groups.
Teacher asks students to report each their topic to another student.
**ICOT (Individual Construction of Text)**
Teacher gives the feedback to students about the material.

### Closing (30 minutes):
- Teacher gives the evaluation sheet to the students.
- Teacher closes the lesson by greeting.

**Media**
- Picture, paper, whiteboard and board marker.

**Sources**

**Assessment**
- **Form**: Written.
- **Technique**: Students are assigned to choose answer from multiple choices and essay test.
- **Instrument**: Test

**Scoring guide**
- i. Every correct answer scored 1
- j. Maximum score 20 x 5 = 100
- k. Maximum Grade 100
- l. The students score: Achievement score

**Summary the material**

**Narrative** is to amuse, entertain and to deal with an actual or vicarious experience in different ways. Narrative deals with problematic events, which lead to a crisis or turning point of some kind, which in turn finds a resolution.

**Some parts of narrative text**

- **Orientation**
  It is about the opening paragraph where the characters of the story are introduced.
- **Complication**
  It is where the problems in the story developed.
- **Resolution**
  It is where the problems in the story are solved.

The example of narrative text:

**The Smartest Parrot**

Once upon a time, a man had a wonderful parrot. There was no other parrot like it. The parrot could say every word, except one word. The parrot would not say the name of the place where it was born. The name of the place was Catano.

The man felt excited having the smartest parrot but he could not
understand why the parrot would not say Catano. The man tried to teach the bird to say Catano however the bird kept not saying the word.

At the first, the man was very nice to the bird but then he got very angry. “You stupid bird!” pointed the man to the parrot. “Why can’t you say the word? Say Catano! Or I will kill you” the man said angrily. Although he tried hard to teach, the parrot would not say it. Then the man got so angry and shouted to the bird over and over; “Say Catano or I’ll kill you”. The bird kept not to say the word of Catano.

One day, after he had been trying so many times to make the bird say Catano, the man really got very angry. He could not bear it. He picked the parrot and threw it into the chicken house. There were four old chickens for next dinner “You are as stupid as the chickens. Just stay with them” Said the man angrily. Then he continued to humble; “You know, I will cut the chicken for my meal. Next it will be your turn, I will eat you too, stupid parrot”. After that he left the chicken house.

The next day, the man came back to the chicken house. He opened the door and was very surprised. He could not believe what he saw at the chicken house. There were three death chickens on the floor. At the moment, the parrot was standing proudly and screaming at the last old chicken; “Say Catano or I’ll kill you”.

Adapted From English in focus for grade XI Senior High School

Known by: English Teacher, Kendal, ..........................

Dra. Rini Fayati
NIP. 196612142000032001

M. Yusuf Mauludi
063411007
A STUPID MAN AND HIS COWS

One day, a stupid man went to market. He bought six cows. After that, he rode one cow home and made the others walk in front of him. One the way he counted them, but he could only see five cows. He counted them again and again. He was certain that he had lost one. He was afraid that he would be scolded by his wife.

His wife was waiting for him in front of their house. As soon as he saw her, he said sadly that he had lost one of their cows. He did not know how it could happen. He was careful.

Then, his wife asked him how many cows he bought. The stupid man answered that he bought six cows. However, he could only see five of them. His wife looked at him and laughed. She said that he was very stupid. There was not one cow less. There was one more.

Adapted from http://www.pitt.edu

Choose the correct answer by crossing a, b, c, d or e!

1. How many cows did the stupid man buy?
   a. One
   b. Four
   c. Five
   d. Six
   e. Seven

2. On his way home, how many cows did he see?
   a. One
   b. Four
   c. Five
   d. Seven
   e. Six

3. Which of the following statements is true according to the text?
   a. The stupid man spent much money on cows
   b. The stupid man was scolded by his wife
   c. The stupid man thought that he had lost one of his cows
   d. The stupid man lost one cow on his way home
   e. The stupid man lost two cows on his way home

4. What does the word “them” in paragraph 1 line 3 refer to?
   a. The other
   b. The cows
   c. The home
   d. The lost cows
   e. One of the cows

5. Which of the following words is the synonym of “stupid”?
   a. Unlucky
   b. Dilligent
   c. Clever
   d. Bright
   e. Dull

6. Which of the following words is the antonym of “certain”?
   a. Sure
   b. Unsure
   c. Of course
   d. Positive
   e. Clear
THE THIRSTY CROW

One hot day, a thirsty crow flew all over the fields looking for water. For a long time, she could not find anything. She felt very weak, almost giving up hope. Suddenly, she saw a water jug below her. She flew straight down to see if there was any water inside. Yes, she could see some water inside the jug!

The crow tried to push her head into the jug. Sadly she found that the neck of the jug was too narrow. Then she tried to push the jug down for the water to flow out. She found that the jug was too heavy.

The crow thought hard for a while. Then looking around her, she saw some pebbles. She suddenly had a good idea. She started picking up the pebbles one by one, dropping each into the jug. As more and more pebbles filled the jug, the water kept rising. Soon it was high enough for the crow to drink. Her plan had worked.

Adapted from kumpulan soal bahasa inggris

7. The thirsty crow flew all over the field because...
   a. She felt very weak   d. She was looking for water
   b. She couldn't find any water   e. She was almost giving up hope
   c. She couldn't find anything

8. She saw some pebbles (last paragraph)
   The underlined word means...
   a. Little animal’s   d. Little stones
   b. Big rocks   e. Pieces of little woods
   c. Little leaves

9. The complications of the text are found in...
   a. Paragraph 1 and 2   d. Paragraph 3 and 4
   b. Paragraph 2 and 3   e. Paragraph 1 and 3
   c. Paragraph 2 and 4

10. What is the moral value of the text above?
    a. If someone has a problem we must try hard to help him
    b. Don't be afraid to do something although it is very dangerous
    c. If you want something you must do it by yourself
    d. If you try hard enough you may soon find the answer to your problem
    e. Never say die when we are into the big problem.

THE RABBIT AND CROCODILE

Once upon a time, a rabbit wanted to cross a river but he could not swim. He had an idea. He saw a boss of crocodile swimming in the river. The rabbit asked the boss of crocodile, "How many crocodiles are there in the river?" The boss of crocodile answered, "We are twenty here." "Where are they?" the rabbit asked for the second time. "All of you are good, nice, gentle and kind, so I want to make a line in order. Later I will know how kind you are," said the rabbit. Then, the boss of the crocodile called all his friends and asked them to make a line in order from one side to the other side of the river. Just then, the rabbit started to count while jumping from one crocodile to another: one ... two ... three ... four ... until twenty, and finally, he thanked all crocodiles because he had crossed the river.

Adapted from http://understandingtext.blogspot.com
11. The story mainly tells us about...
   a. Twenty crocodiles  
   b. The boss of the crocodile  
   c. A rabbit and twenty crocodiles  
   d. A rabbit and the boss of crocodile  
   e. The boss of the crocodile and all his friends

12. We know from the first paragraph that the rabbit actually wanted...
   a. To cross the river  
   b. To swim across the river  
   c. To meet the boss of crocodile  
   d. To know where the crocodiles are  
   e. To know the number of crocodiles there

13. “All of you are good, nice, gentle, and kind ...” (Paragraph 2)
   The underlined word is synonymous with...
   a. Wild  
   b. Diligent  
   c. Cheerful  
   d. Easygoing  
   e. Honourable

THE LION AND THE FOX

One day the lion, king of the jungle, told all the animals in the forest that he was sick and dying. He told them to come visit him to hear his last words.

The goat, the sheep, and the cow went into the lion’s cave to say good bye to their king. The fox which was very smart just waited outside and watched.

None of the animals came out. Finally, after a long time, the lion got up and come out of his cave and saw the fox sitting there. The lion said to him, “why don’t you come visit me, my friend? You know that I am sick and dying”.

The fox answered, “Pardon me, you’re majesty, but I did not wish to crowd you. I saw many animals go into your cave, but none of them have come out. Until some of them come out, I will stay outside in the fresh air”.

Adapted from English for Senior High school

14. The setting of the story is…
   a. Far from the lion’s cave  
   b. In the fox’s cave  
   c. In the lion’s cave  
   d. In the animals cave  
   e. In the jungle

15. The fox was very…
   a. Stupid  
   b. Big that he could not come in  
   c. Smart  
   d. Obedient  
   e. Funny

16. The lion was…
   a. Dying  
   b. Very good to other animals  
   c. Not really dying  
   d. The fox good friend  
   e. Honorable
A FISHERMAN AND A FISH

A long time ago, there lived a fisherman. One day he had been fishing all day, but he did not catch anything. In the evening, he caught a very small fish. The fish said, “Please don’t eat me. Please, I am too small to make you good dinner. Please, throw me back to the water. Later, when I grow bigger, you come back and catch me again.” “No” said the fisherman. “I am to keep you. If you get back into the water, you take very good care, and you will never come near me again.”

Then the fisherman put the poor little fish and his pond at the backyard. When the fish grew bigger, it becomes a good friend of the fisherman. He never wanted to eat the fish.

Adapted from kumpulan soal bahasa inggris

17. What is the purpose of the text?
   a. To tell how to do something step by step
   b. To entertain the readers
   c. To tell past events
   d. To describe a person or place
   e. To presents information about something

18. Below is what the fish asked the fisherman to do, except…
   a. Not to eat him
   b. To throw him back to the water
   c. To come back and catch him again when he grew bigger
   d. To make him a good dinner
   e. The fish is too small to be him food

19. What did the fisherman do to the fish?
   a. He took care of the fish
   b. He ate him
   c. He sold him
   d. He gave him to another person
   e. He cooked him

20. What happened between the fisherman and the fish at last…?
   a. The fisherman eat the fish
   b. The fisherman became a good friend with him
   c. The fish made a good house for the fisherman
   d. The fish gave the fisherman everything he wanted
   e. The fish was tortured by the fisherman
Answer Key of Post-test

1. D
2. C
3. C
4. B
5. E
6. B
7. B
8. D
9. B
10. D
11. C
12. A
13. D
14. E
15. C
16. C
17. C
18. D
19. A
20. B
THE RABBIT AND CROCODILE

Once upon a time, a rabbit wanted to cross a river but he could not swim. He had an idea. He saw a boss of crocodile swimming in the river. The rabbit asked the boss of crocodile, "How many crocodiles are there in the river?" The boss of crocodile answered, "We are twenty here." "Where are they?" the rabbit asked for the second time. "What is it for?" the boss of crocodile asked.

"All of you are good, nice, gentle and kind, so I want to make a line in order. Later I will know how kind you are," said the rabbit. Then, the boss of the crocodile called all his friends and asked them to make a line in order from one side to the other side of the river. Just then, the rabbit started to count while jumping from one crocodile to another: one ... two ... three ... four ... until twenty, and finally, he thanked all crocodiles because he had crossed the river.

"Adapted from http://understandingtext.blogspot.com"

Choose the correct answer by crossing a, b, c, d or e!

1. The story mainly tells us about...
   f. Twenty crocodiles  
g. The boss of the crocodile  
h. A rabbit and twenty crocodiles  
i. A rabbit and the boss of crocodile  
j. The boss of the crocodile and all his friends

2. We know from the first paragraph that the rabbit actually wanted...
   A. To cross the river  
   B. To swim across the river  
   C. To meet the boss of crocodile  
   D. To know where the crocodiles are  
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3. "All of you are good, nice, gentle, and kind ..." (Paragraph 2)
   The underlined word is synonymous with...
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   B. Diligent  
   C. Cheerful  
   D. Easygoing  
   E. Honourable

A FISHERMAN AND A FISH

A long time ago, there lived a fisherman. One day he had been fishing all day, but he did not catch anything. In the evening, he caught a very small fish. The fish said, "Please don’t eat me. Please, I am too small to make you good dinner. Please, throw me back to the water. Later, when I grow bigger, you come back and catch me again." "No" said the fisherman. "I am to keep you. If you get back into the water, you take very good care, and you will never come near me again."
Then the fisherman put the poor little fish and his pond at the backyard. When the fish grew bigger, it becomes a good friend of the fisherman. He never wanted to eat the fish.

Adapted from *kumpulan soal bahasa inggris*

4. What is the purpose of the text?
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   g. To entertain the readers
   h. To tell past events
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   j. To presents information about something

5. Below is what the fish asked the fisherman to do, except…
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   g. To throw him back to the water
   h. To come back and catch him again when he grew bigger
   i. To make him a good dinner
   j. The fish is too small to be him food

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   f. The fisherman eat the fish
   g. The fisherman became a good friend with him
   h. The fish made a good house for the fisherman
   i. The fish gave the fisherman everything he wanted
   j. The fish was tortured by the fisherman

**THE FOX AND THE CAT**

One day a fox was bragging to a cat. “I am so smart. I know a lot of tricks. I know a hundred different ways to escape from my enemies.”

“That’s wonderful!” said the cat. “I only know one trick. Can you teach me some of yours?”

“Well, maybe,” said the fox.

At the moment they heard a pack of wild dogs running toward them. The cat ran up a tree and disappeared. “This is the trick I told you about,” said the cat. “It’s my only one. Which trick are you going to use?”

The fox sat there trying to decide which trick to use. He thought a long time. Then he decides to run. But it was too late. The wild dogs got there before he could run away and ate him up.

Adapted from *kumpulan soal bahasa inggris*

8. One day a fox was bragging to a cat. (Paragraph 1)
   The word ‘**bragging**’ in the text may mean…
   A. Mengejar
   B. Menyombongkan diri
The Wolf and the Goat

A wolf saw a goat grazing at the edge of a high cliff. The wolf smacked his lips at the thought of affine goat dinner.

“My dear friend,” said the wolf in his sweetest voice, “aren’t you afraid you will fall down from that cliff? Come down here and graze on this fine grass beside me on safe, level ground.”

“No, thank you,” said the goat.

“Well then,” said the wolf, “aren’t you cold up there in the wind? You would be warmer grazing down here beside me in this sheltered area.”

“No, thank you,” said the goat.

“But the grass tastes better down here!” said the exasperated wolf, “Why dine alone?”

“My dear wolf,” the goat finally said, “are you quite sure that it is my dinner you are worrying about and not your own?”

Adapted from http://www.pitt.edu

11. What did the wolf ask when he saw the goat grazing at the edge of a high cliff?
   A. To be his friend.
   B. To put of death.
   C. To graze on the level ground.
   D. To climb up higher.
   E. To be his dinner.

12. “Aren’t you cold up there in the wind?”
   The word ‘there’ refers to …
   A. A high cliff
   B. Sheltered area
   C. Goat
   D. Grass
   E. Ground

13. What can we learn from the story above?
   A. Don’t look down other creatures.
B. Don’t easily believe in well behaved creatures.  
C. Don’t judge others by their appearance.  
D. Don’t easily to be a deceiver.  
E. Don’t easily beat other creatures.  

14. From the story we know …  
A. The goat was very hungry  
B. The wolf was a helpful animal  
C. The wolf was very benevolent  
D. The wolf was eager to eat the goat  
E. The goat was going to fight with the wolf  

MALIN KUNDANG  

Long time ago, in west Sumatra, there lived a poor widow named Mande Rubiah. She lived with her son named Malin Kundang. She loved her son very much. When Malin was fifteen years old, he worked as a porter on a merchant ship and went abroad for many years.  

The captain of the ship liked Malin Kundang. When he was older, the captain asked him to marry his daughter. Malin Kundang becomes very rich. But, he becomes too proud and arrogant because of his wealth.  

One day, Malin Kundang’s ship dropped anchor at Batang Arau Harbour, West Sumatra. Malin’s mother heard about this and went to the ship to see her son. But what happened? Malin Kundang did not want to admit his mother. He knew it but he was too arrogant. He even scolded her and asked to guard to send her away. After that, Malin’s mother prayed to God. “Oh God, I know he is my son. But, why has he turned so wicked? Punish him as you wish!”  

Then, when Malin’s ship sailed, the sky turned dark, and a strong wind blew the ship. The ship was drowned and Malin Kundang turned into stone.  

Adapted from www.st.rim.or.jp  

15. From the first sentence of the paragraph one, we know that Mande Rubiah had no…  
   d. Father  
   e. Daughter  
   f. Husband  
   d. Family  
   e. Children  

16. He loved her son very much. (Paragraph 1)  
The opposite of loved is…  
   a. Liked  
   b. Spoiled  
   c. Hated  
   d. Cursed  
   e. Contented  

17. But why she turned so wicked. (Paragraph 3)  
The underlined word has the same meaning as…  
   a. Stubbied  
   b. Wealthy  
   c. Evil  
   d. Proud  
   e. Benevolent  

THE LION AND THE FOX  

One day the lion, king of the jungle, told all the animals in the forest that he was sick and dying. He told them to come visit him to hear his last words.
The goat, the sheep, and the cow went into the lion’s cave to say good bye to their king. The fox which was very smart just waited outside and watched.

None of the animals came out. Finally, after a long time, the lion got up and came out of his cave and saw the fox sitting there. The lion said to him, “why don’t you come visit me, my friend? You know that I am sick and dying”.

The fox answered, “Pardon me, you’re majesty, but I did not wish to crowd you. I saw many animals go into your cave, but none of them have come out. Until some of them come out, I will stay outside in the fresh air”.

*Adapted from* English for Senior High school

18. The main characters of the story are…
   a. The sheep and the goat
d. The fox and the sheep
   b. The lion and the cow
e. The fox and the goat
   c. The lion and the fox

19. What happened to the cow and goat? The lion might have…
   a. Taken care of them well
d. Given them his last words
   b. Asked them to accompany him
e. Stayed with him
   c. Eaten them

20. The moral lesson of the story is…
   a. It is always best to stay in the fresh air
   b. Don’t believe everything people for you
   c. Don’t believe in people who will give her/his last words
   d. Never trust someone who says he is sick
   e. Don’t easy believe to the someone’s majesty
Answer Key of Pre-Test

1. C
2. A
3. D
4. C
5. D
6. A
7. B
8. B
9. A
10. B
11. C
12. A
13. B
14. D
15. C
16. C
17. D
18. C
19. C
20. C
The Little Jackal and the Alligator

The little Jackal was very fond of shell-fish. He used to go down by the river and hunt along the edges for crabs and such things. And once, when he was hunting for crabs, he was so hungry that he put his paw into the water after a crab without looking first, — which you never should do! The minute he put in his paw, snap! — The big Alligator who lives in the mud down there had it in his jaws.

“Oh, dear!” thought the little Jackal; “the big Alligator has my paw in his mouth! In another minute he will pull me down and gobble me up! What shall I do? What shall I do?” Then he thought suddenly, “I’ll deceive him!”

So he put on a very cheerful voice, as if nothing at all was the matter, and he said.

“Ho! Ho! Clever Mr. Alligator! Smart Mr. Alligator, to take that old bulrush root for my paw! I hope you’ll find it very tender!”

The old Alligator was hidden away beneath the mud and bulrush leaves, and he couldn’t see any thing. He thought, “Pshaw! I’ve made a mistake.” So he opened his mouth and let the little Jackal go.

The little Jackal ran away as fast as he could, and as he ran he called out.

“Thank you, Mr. Alligator! Kind Mr. Alligator! So kind of you to let me go!”

The old Alligator lashed with his tail and snapped with his jaws, but it was too late; the little Jackal was out of reach.

After this the little Jackal kept away from the river, out of danger. But after about a week he got such an appetite for crabs that nothing else would do at all; he felt that he must have a crab. So he went down by the river and looked all around, very carefully. He didn’t see the old Alligator, but he thought to himself, “I think I’ll not take any chances.” So he stood still and began to talk out loud to himself. He said.

“When I don’t see any little crabs on the land I most generally see them sticking out of the water, and then I put my paw in and catch them. I wonder if there are any fat little crabs in the water today.”

The old Alligator was hidden down in the mud at the bottom of the river, and when he heard what the little Jackal said, he thought, “Aha! I’ll pretend to be a little crab, and when he puts his paw in, I’ll make my dinner of him.” So he stuck the black end of his snout above the water and waited.

The little Jackal took one look, and then he said, — “Thank you, Mr. Alligator! Kind Mr. Alligator! You are exceedingly kind to show me where you are! I will have dinner elsewhere.” And he ran away like the wind.

Five-Footed Bear

Once upon a time there was a strange bear that lived in a jungle. He had five feet. But all animals who lived with him didn’t feel strange. The five footed
bear liked to help other animals. His home was open for anyone who wanted to stay.

One afternoon, when the five footed bear went home, he found a rabbit under a mahogany tree. The rabbit looked hungry. Then the five footed bear brought him to his home.

The next day, when the five footed bear was looking for meal, the rabbit helped him clean up the house. While the rabbit was working, a monkey and a mouse deer came quietly. They pretended to be robbers. They wanted to disturb the rabbit.

The rabbit was frightened. The monkey and the mouse deer tied up the rabbit’s legs and plugged his mouth. Fortunately the five footed bear came and released him. The rabbit was upset because the bear wasn’t angry with the monkey and the mouse deer. In fact, the five footed bear let them live in his house.

On the next day the monkey and the mouse deer asked the rabbit to forgive them. They helped him clean up the house. In the evening when the bear was coming home, he brought those meals and a new friend. The monkey and the mouse deer were very afraid knowing who the new friend was. He was a tiger. But the rabbit wasn’t afraid. The tiger was one of the rabbit’s best friends. The monkey and the mouse deer didn’t know it. The monkey and the mouse deer were very embarrassed. That was the cleverness of the five footed bear. He wanted to make them aware of their bad habit of frightening the rabbit. Then they sat and enjoyed their dinner together.

Adapted from [http://evasmp6bkt.blogspot.com](http://evasmp6bkt.blogspot.com)

**Answer the following questions in your paper!**

1. Understand the passage above with your partner!
2. Analyze the generic structure of the text above!

**Why the Fox has a Huge Mouth**

One day many years ago, at a time when his mouth was still small and dainty, as in fact it used to be, the fox was out walking and happened to notice a Huaychao singing on a hilltop. Fascinated by the bird’s flute-like bill, he said politely, “What a lovely flute, friend Huaychao, and how well you play it! Could you let me try it? I’ll give it back in a moment, I promise.”

The bird refused. But the fox was so insistent that at last the Huaychao lent him its bill, advising him to sew up his lips except for a tiny opening so that the ‘flute’ would fit just right.

Then the fox began to play. He played on and on without stopping. After a while the Huaychao asked for its bill back, but still the fox kept on. The bird reminded him, “You promised. Besides, I only use it from time to time; you’re playing it constantly.” But the fox paid no attention and kept right on.

Awakened by the sound of the flute, skinks came out of their burrows and climbed up the hill in a bustling throng. When they saw the fox playing, they began to dance.

At the sight of the dancing skunks, the fox burst out laughing. As he laughed, his lips became unstitched. His mouth tore open and kept on tearing until he was grinning from ear to ear. Before the fox could regain his composure, the
Huaychao had picked up his bill and flown away. To this day the fox has a huge mouth - as punishment for breaking his promise.  

Answer the following questions in your paper!
1. Understand the passage above with your partner!
2. Analyze the generic structure of the text above!

The Smartest Parrot

Once upon time, a man had a wonderful parrot. There was no other parrot like it. The parrot could say every word, except one word. The parrot would not say the name of the place where it was born. The name of the place was Catano.

The man felt excited having the smartest parrot but he could not understand why the parrot would not say Catano. The man tried to teach the bird to say Catano however the bird kept not saying the word.

At the first, the man was very nice to the bird but then he got very angry. “You stupid bird!” pointed the man to the parrot. “Why can’t you say the word? Say Catano! Or I will kill you” the man said angrily. Although he tried hard to teach, the parrot would not say it. Then the man got so angry and shouted to the bird over and over; “Say Catano or I’ll kill you”. The bird kept not to say the word of Catano.

One day, after he had been trying so many times to make the bird say Catano, the man really got very angry. He could not bear it. He picked the parrot and threw it into the chicken house. There were four old chickens for next dinner “You are as stupid as the chickens. Just stay with them” Said the man angrily. Then he continued to humble; “You know, I will cut the chicken for my meal. Next it will be your turn, I will eat you too, stupid parrot”. After that he left the chicken house.

The next day, the man came back to the chicken house. He opened the door and was very surprised. He could not believe what he saw at the chicken house. There were three death chickens on the floor. At the moment, the parrot was standing proudly and screaming at the last old chicken; “Say Catano or I’ll kill you”.

Adapted From English in focus for grade XI Senior High School

The Legend of Toba Lake

Once upon time, there was a handsome man. His name was Batara Guru Sahala. He liked fishing. One day, he caught a fish. He was surprised to find out that the fish could talk. The fish begged him to set it free.
Batara Guru could not bear it. He made the fish free. As soon as it was free, the fish changed into a very beautiful woman. She attracted Batara Guru so much. He felt in love with that fish-woman. The woman wanted to marry with him and said that Batara Guru had to keep the secret which she had been a fish. Batara Guru agreed and promised that he would never tell anybody about it.

They were married happily. They had two daughters. One day Batara Guru got very angry with his daughter. He could not control his mad. He shouted angrily and got the word of fish to his daughters. The daughters were crying. They found their mother and talked her about it.

The mother was very annoyed. Batara Guru broke his promise. The mother was shouting angrily. Then the earth began to shake. Volcanoes started to erupt. The earth formed a very big hole. People believed that the big hole became a lake. Then this lake is known as Toba Lake.

Adapted from English for Senior High school

Answer the following questions in your paper!

1. Understand the passage above with your partner!
2. Analyze the generic structure of the text above!
List of Group in Experimental Class

**Group 1**
1. Alif Pandu Sofyana
2. Isyah Nurmillah
3. Muhamad Khairul Ma’arif
4. Nur Aini
5. Puput Fitriyani Romadhon

**Group 2**
1. Gusmawardi
2. M. Nadhif Yahya
3. Widiastuti
4. Arifatul Dessi Rahmawati
5. Fajar Riyansyah

**Group 3**
1. Adi Purnomo
2. Laila Nur Farida
3. Siti Kusrini
4. Nur Hidayat
5. Darussalam Wijaya

**Group 4**
1. Akhmad Khudhori
2. Farira Irawan
3. Lina Hidayah
4. Maesaroh
5. Akrom Arrosyid

**Group 5**
1. Ahmad Azis
2. Desi Ariani
3. Salis Yuniyanti
4. Suci Mardiana
5. Yulistiarso

**Group 6**
1. Nur Tira Aniati
2. Sholihatul Fuadiyah
3. Moh Husni Rahmatika
4. Istianah
5. Lilik Nurul Lailiyah
6. Siti Jarwati

**Group 7**
1. Ahmad Rifai
2. Iqo Utthohirin
3. Nur Kholifah
4. Rif’ayati
5. Mohamad Ridwan
6. Wulan
Setyaningsih

**Group 8**
1. Widy Utomo
2. Erwin Junianto
3. Aini Muflihah
4. Irvan Maulana
5. Muhammad Ihsan
6. Yayuk
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**Validitas**

- $r_{xy}$: 0.54, 0.47, 0.64, 0.53, 0.31, 0.53, 0.56, 0.55, 0.44, 0.48, 0.47, 0.57, 0.44, 0.59, 0.5, 0.4, 0.45, 0.58, 0.392, 0.5
- $F_{tabel}$: 0.31, 0.31, 0.31, 0.31, 0.31, 0.31, 0.31, 0.31, 0.31, 0.31, 0.31, 0.31, 0.31, 0.31, 0.31, 0.31, 0.31, 0.31, 0.31

**Daya Pembelajaran**

- BA: 21, 20, 20, 20, 17, 20, 18, 20, 18, 20, 18, 20, 17, 20, 19, 19, 20, 20, 20, 20
- BB: 14, 13, 12, 13, 12, 13, 10, 11, 11, 13, 11, 14, 11, 10, 12, 13, 16, 14, 13, 14
- JA: 21, 21, 21, 21, 21, 21, 21, 21, 21, 21, 21, 21, 21, 21, 21, 21, 21, 21, 21, 21
- JB: 22, 22, 22, 22, 22, 22, 22, 22, 22, 22, 22, 22, 22, 22, 22, 22, 22, 22, 22, 22
- DP: 0.36, 0.36, 0.41, 0.36, 0.26, 0.36, 0.4, 0.45, 0.36, 0.36, 0.36, 0.36, 0.31, 0.5, 0.36, 0.31, 0.225, 0.36, 0.361, 0.32

**Kriteria Kesukaran**

- Sedan: 0.81, 0.77, 0.74, 0.77, 0.67, 0.77, 0.65, 0.72, 0.67, 0.77, 0.67, 0.81, 0.65, 0.7, 0.72, 0.74, 0.837, 0.81, 0.767, 0.79

**Reliabilitas**

- $p$: 0.81, 0.77, 0.74, 0.77, 0.67, 0.77, 0.65, 0.72, 0.67, 0.77, 0.67, 0.81, 0.65, 0.7, 0.72, 0.74, 0.837, 0.81, 0.767, 0.79
- $q$: 0.19, 0.23, 0.26, 0.23, 0.33, 0.23, 0.35, 0.28, 0.33, 0.23, 0.33, 0.19, 0.35, 0.3, 0.28, 0.26, 0.163, 0.19, 0.233, 0.21
- $pq$: 0.15, 0.18, 0.19, 0.18, 0.22, 0.18, 0.23, 0.2, 0.22, 0.18, 0.22, 0.15, 0.23, 0.21, 0.2, 0.19, 0.136, 0.15, 0.178, 0.17, 0.17, 0.17, 0.17, 0.17, 0.17, 0.17, 0.17
- $V_t$: 18,445, 6

**Kriteria soal**

- Dipakai: 0.836
The Computation of Item Validity

Formula:

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

Criteria:
The item is valid if \( r_{xy} > r_{table} \)

Calculation:
Below is the example of the item validity of number 1.

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<td>35</td>
<td>639</td>
<td>35</td>
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Where: \( N = 43 \)  \( \sum X^2 = 35 \)  \( \sum Y^2 = 10289 \)  \( Y = 639 \)  \( \sum XY = 559 \)

\[
\hat{r}_{xy} = \frac{43(559) - (35)(639)}{\sqrt{[43(35) - (35)^2][43(10289) - (639)^2]}}
\]

\[= 0.54\]

Because of \( r_{xy} > r_{table} \), so item number 1 is valid.
The Computation of Reliability

Formula:
\[ r_{11} = \left( \frac{k}{k-1} \right) \left( 1 - \frac{\sum \sigma_{k^2}}{\sigma^2} \right) \]

Criteria:
The try out is reliable if \( r_{11} > r_{table} \)

Calculation:
\[ \sigma_i^2 = \frac{\sum Y^2 - (\bar{Y})^2}{N} \]
\[ = \frac{10289 - 639^2}{43} \]
\[ = 18,447 \]

\[ p = \frac{JB}{JA} = \frac{35}{43} = 0.8 \]
\[ q = \frac{JS}{JA} = \frac{8}{43} = 0.2 \]

\[ \Sigma pq = 3,129 \]

Index Reliability
\[ r_{11} = \left( \frac{21}{21-1} \right) \left[ 1 - \frac{3,129}{18,447} \right] \]
\[ = 0.83 \]
The Computation of Difficulty Index

Formula:
\[ P = \frac{B}{JS} \]

Criteria:
- \(0.00 \leq P < 0.30\) is difficult
- \(0.30 \leq P < 0.70\) is medium
- \(0.70 \leq P < 1.00\) is easy

Calculation:
Below is the example of the computation of difficulty level on item number 1.

\[ B = 35 \]
\[ JS = 43 \]

So:
\[ P = \frac{35}{43} = 0.8 \]

The result obtained \(P = 0.8\)
Because of the result is between 0.70 – 100, so the item number 1 is easy.
The Computation of Discriminating Power

Formula:

\[ D = \frac{B_A}{J_A} - \frac{B_B}{J_B} = P_A - P_B \]

Criteria:

\begin{align*}
D = 0,00 – 0,20 & : \text{Poor} \\
D = 0,21 – 0,40 & : \text{Satisfactory} \\
D = 0,41 – 0,70 & : \text{Good} \\
D = 0,71 – 1,00 & : \text{Excellent}
\end{align*}

Calculation:

Below is the example of the computation of discriminating power on item number 1.

\[ B_B = 14 \quad J_B = 22 \]

\[ B_A = 21 \quad J_A = 21 \]

\[ P_A = \frac{B_A}{J_A} = \frac{21}{21} = 1 \]

\[ P_B = \frac{B_B}{J_B} = \frac{14}{22} = 0,64 \]

\[ D = P_A - P_B = 1 - 0,64 = 0,36 \]

The result obtained \( D = 0,36 \)

Because of the result is between 0.21 – 0,40. So the item number 1 is satisfactory.
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<td>( S )</td>
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Because of $X$

For $a = 5\%$ with $dk = k-1 = 2-1 = 1$ is obtained $X^2_{\text{table}} = 3.84$

Because of $X^2$ hitung $< X^2$ table so the data is homogeneous
TEST OF SIMILARITY BETWEEN TWO VARIANCES IN PRE TEST OF EXPERIMENTAL AND CONTROL GROUP

Hypothesis

Ho : $\sigma_1^2 = \sigma_2^2$

Ha : $\sigma_1^2 \neq \sigma_2^2$

Test of Hypothesis

To measure the hypothesis using the formula below:

$$F = \frac{\text{Biggest Variant}}{\text{Smallest Variant}}$$

Ho is accepted if $F \leq F_{1/2\alpha (nb-1):(nk-1)}$

Based on the formula, the result was:

<table>
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<tr>
<th>Variant Sources</th>
<th>Experimental G</th>
<th>Control G</th>
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<tr>
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<td>x Variants ($s^2$)</td>
<td>76.40</td>
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<tr>
<td>Standart deviation ($s$)</td>
<td>5.70</td>
<td>4.94</td>
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</tbody>
</table>

Based on the formula, the result was:

$$F = \frac{32.5305}{24.3909} = 1.334$$

On $\alpha = 5\%$ with:

dk pembilang = nb - 1 = 43 - 1 = 42

dk penyebut = nk - 1 = 43 - 1 = 42

$$F_{0.025(42:42)} = 1.67$$
1,3337  1,67

Because of $F$ is in Ho area, it can be concluded that both experiment and control group have no differences.
TEST OF DIFFERENCES BETWEEN TWO VARIANCES IN THE PRE TEST OF EXPERIMENTAL AND CONTROL GROUPS

**Hipotesis**

Ho : \( \mu_1 = \mu_2 \)

Ha : \( \mu_1 \neq \mu_2 \)

**Uji Hipotesis**

To measure the hypothesis using the formula below:

\[
t = \frac{\bar{x}_1 - \bar{x}_2}{s \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}
\]

Where,

\[
s = \sqrt{\frac{(n_1 - 1)s_1^2 + (n_2 - 1)s_2^2}{n_1 + n_2 - 2}}
\]

Ho is accepted if \( -t_{(1-1/2)(\alpha)} \leq t \leq t_{(1-1/2)(\alpha)}(n_1+n_2-2) \)

Dari data diperoleh:

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<th>Variants Sources</th>
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<tr>
<td>Standart deviation ((S))</td>
<td>5,70</td>
<td>4,94</td>
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</table>

Based on the formula, the result was:

\[
s = \sqrt{\frac{\left(\frac{76,40}{43}\right) - \left(\frac{32,5305}{43}\right) + \left(\frac{24,390}{43}\right)}{2}} = 5,33486
\]

\[
t = \frac{76,40}{5,33486} \sqrt{\frac{75,12}{1} + \frac{1}{1}} = 1,112
\]
On $\alpha = 5\%$ with $df = 43 + 43 - 2 = 84$ is obtained $t_{0.975(80)} = 1.98860$ is obtained.

Because of $t$ is in the $H_0$ area, so it can be concluded that there are no differences between experimental and control group.
## Data of Test

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Table of Bartlett Test

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<tr>
<td>Sum</td>
<td>84</td>
<td></td>
<td></td>
<td></td>
<td>168,759</td>
<td>8576,744</td>
</tr>
</tbody>
</table>

\[
S^2 = \frac{\sum (n_i - 1)S_i^2}{\sum (n_i - 1)} = \frac{8576,744}{84} = 102,104097
\]

\[
B = (\log S^2) S(n_i - 1)
\]

\[
B = 2,009043171
\]

\[
B = 168,7596263
\]

\[
X^2 = \frac{\{B - (\log S^2) S(n_i - 1)\}}{S^2} = \frac{168,759626}{3} = 55,919215
\]

\[
X^2 = 2,302585093
\]

\[
X^2 = 0,001633547
\]

For \( a = 5\% \) with \( dk = k-1 = 2-1 = 1 \) is obtained \( X^2_{table} = 3,84 \)

Because of \( X^2 \) hitting < \( X^2 \) table so the data is homogeneous
Table of Post Test Homogeneity

<table>
<thead>
<tr>
<th>Variant Sources</th>
<th>CONTROL</th>
<th>EXPERIMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sum</td>
<td>3200</td>
<td>3360</td>
</tr>
<tr>
<td>n</td>
<td>43</td>
<td>43</td>
</tr>
<tr>
<td>∑X</td>
<td>74,42</td>
<td>78,14</td>
</tr>
<tr>
<td>Variance (S²)</td>
<td>47,87</td>
<td>52,41</td>
</tr>
<tr>
<td>Standard deviation (S)</td>
<td>6,92</td>
<td>7,24</td>
</tr>
</tbody>
</table>

Tabel Uji Bartlett

<table>
<thead>
<tr>
<th>Sample</th>
<th>dk</th>
<th>1/dk</th>
<th>S_i²</th>
<th>Log S_i²</th>
<th>dk*Log S_i²</th>
<th>dk*S_i²</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>42</td>
<td>0,0238</td>
<td>47,868</td>
<td>1,680</td>
<td>70,562</td>
<td>2010,465</td>
</tr>
<tr>
<td>2</td>
<td>42</td>
<td>0,0238</td>
<td>52,409</td>
<td>1,719</td>
<td>72,215</td>
<td>2201,163</td>
</tr>
<tr>
<td>Sum</td>
<td>84</td>
<td></td>
<td>142,777</td>
<td></td>
<td>4211,628</td>
<td></td>
</tr>
</tbody>
</table>

\[ S^2 = \frac{\sum (n_i - 1)S_i^2}{\sum (n_i - 1)} = \frac{4211,628}{84} = \frac{50,1384274}{6} \]

\[ B = (\log S^2)S(n_i - 1) \]

\[ B = 1,700170709 \]

\[ B = 142,8143395 \]

\[ X^2_{value} = \frac{(\text{Ln 10}) \{ B - \frac{S(n_i - 1) \log S_i^2}{S_i^2} \}}{5} = 142,814339 \]

\[ X^2_{value} = 2,302585093 \]

\[ X^2_{value} = 0,086195713 \]

For \( a = 5\% \) with \( dk = k-1 = 2-1 = 1 \) is obtained \( X^2_{table} = 3,84 \)

Because of \( X^2 \) hitung < \( X^2 \) table so the data is homogeneous
TEST OF THE NORMALITY DATA OF PRE TEST CONTROL GROUP (CLASS XI IPS)

Hypothesis
H₀: Data distributes normally
H₁: Data does not distribute normally

Formula

\[ X^2 = \sum \frac{(O_i - E_i)^2}{E_i} \]

Criteria
is accepted if \( H, X^2_{\text{cal}} < X^2_{\text{tab}} \)

Test of Hypothesis
Max. Value = 70
Min. Value = 30
Stretches of Value (R) = 70 - 30 = 40
Classes (k) = \( 1 + 3.3 \log 43 \) = \( 6.390 \) = 7 kelas
Length of classes (P) = 40/7 = \( 5.71429 \) = 6

Distribution Table of the Pre Test of Control Group

<table>
<thead>
<tr>
<th>Class</th>
<th>( f_i )</th>
<th>( X_i )</th>
<th>( X_i^2 )</th>
<th>( f_i \cdot X_i )</th>
<th>( f_i \cdot X_i^2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 - 35</td>
<td>5</td>
<td>32.5</td>
<td>1056.25</td>
<td>162.5</td>
<td>5281.25</td>
</tr>
<tr>
<td>36 - 41</td>
<td>9</td>
<td>38.5</td>
<td>1482.25</td>
<td>346.5</td>
<td>13340.3</td>
</tr>
<tr>
<td>42 - 47</td>
<td>11</td>
<td>44.5</td>
<td>1980.25</td>
<td>489.5</td>
<td>21782.8</td>
</tr>
<tr>
<td>48 - 53</td>
<td>6</td>
<td>50.5</td>
<td>2550.25</td>
<td>303</td>
<td>15301.5</td>
</tr>
<tr>
<td>54 - 59</td>
<td>3</td>
<td>56.5</td>
<td>3192.25</td>
<td>169.5</td>
<td>9576.75</td>
</tr>
<tr>
<td>60 - 65</td>
<td>6</td>
<td>62.5</td>
<td>3906.25</td>
<td>375</td>
<td>23437.5</td>
</tr>
<tr>
<td>66 - 71</td>
<td>3</td>
<td>68.5</td>
<td>4692.25</td>
<td>205.5</td>
<td>14076.8</td>
</tr>
<tr>
<td>Sum</td>
<td>43</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\[ X = \frac{\sum f_i \cdot X_i}{\sum f_i} = \frac{2052}{43} = 47,7093 \]

\[ S^2 = \frac{43 \cdot 102797 - (2051.5)^2}{(43 - 1)} = \frac{117,169}{42} = 2,789.21 \]

\[ S = \sqrt{2,789.21} = 52,8245 \]

List of the Observation Frequency of Control Group

<table>
<thead>
<tr>
<th>Class</th>
<th>( Z_i )</th>
<th>( P(Z_i) )</th>
<th>( Ld )</th>
<th>( Ei )</th>
<th>( Oi )</th>
<th>( E_i )</th>
<th>( (O_i - E_i)^2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>29.5</td>
<td>-1.68</td>
<td>0.4537</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30 – 35</td>
<td></td>
<td>0.0834</td>
<td>3.6</td>
<td>5</td>
<td>0.5569</td>
<td></td>
<td></td>
</tr>
<tr>
<td>35.5</td>
<td>-1.13</td>
<td>0.3703</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>36 – 41</td>
<td></td>
<td>0.1534</td>
<td>6.6</td>
<td>9</td>
<td>0.8748</td>
<td></td>
<td></td>
</tr>
<tr>
<td>41.5</td>
<td>-0.57</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
For $a = 5\%$, with $dk = 7 - 3 = 4$ it is obtained $X^2$ tabel = 9,49

Because of $X^2 < X^2$ tabel, so the data is in the normal distribution
TEST OF THE NORMALITY DATA OF PRE TEST EXPERIMENTAL GROUP (CLASS XI IPS-1)

**Hypothesis**

H<sub>0</sub>: Data distributes normally  
H<sub>1</sub>: Data does not distribute normally

**Formula**

\[ X^2 = \sum \frac{(O_i - E_i)^2}{E_i} \]

**Criteria**

is accepted if  \[ H_0 \quad X^2_{\text{tabel}} < X^2_{\text{hitung}} \]

**Test of Hypothesis**

Max. Value = 75  
Min. Value = 35  
Stretches of Value (R) = 75-35 = 40  
Classes (k) = 1 + 3,3 log 43 = 6,390 = 7 kelas  
Length of classes (P) = 40/7 = 5,71429 = 6

**Distribution Table of the Pre Test of Experimental Group**

<table>
<thead>
<tr>
<th>Class</th>
<th>( f_i )</th>
<th>( X_i )</th>
<th>( X_i^2 )</th>
<th>( f_iX_i )</th>
<th>( f_iX_i^2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>35 - 40</td>
<td>8</td>
<td>37.5</td>
<td>1406.25</td>
<td>300</td>
<td>11250</td>
</tr>
<tr>
<td>41 - 46</td>
<td>8</td>
<td>43.5</td>
<td>1902.25</td>
<td>348</td>
<td>15138</td>
</tr>
<tr>
<td>47 - 52</td>
<td>6</td>
<td>49.5</td>
<td>2450.25</td>
<td>297</td>
<td>14701.5</td>
</tr>
<tr>
<td>53 - 58</td>
<td>9</td>
<td>55.5</td>
<td>3080.25</td>
<td>490.5</td>
<td>27722.3</td>
</tr>
<tr>
<td>59 - 64</td>
<td>6</td>
<td>61.5</td>
<td>3782.25</td>
<td>368</td>
<td>22693.5</td>
</tr>
<tr>
<td>65 - 70</td>
<td>5</td>
<td>67.5</td>
<td>4556.25</td>
<td>337.5</td>
<td>22781.3</td>
</tr>
<tr>
<td>71 - 76</td>
<td>1</td>
<td>73.5</td>
<td>5402.25</td>
<td>73.5</td>
<td>5402</td>
</tr>
<tr>
<td>Sum</td>
<td>43</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\[ X = \frac{\sum f_iX_i}{\sum f_i} = \frac{2225}{43} = 51,7326 \]

\[ S = \frac{43*119689 - (2224.5)^2}{43(43-1)} = 109,754 \]

\[ S^2 = 10,4764 \]

<table>
<thead>
<tr>
<th>Class</th>
<th>Bk</th>
<th>( Z_i )</th>
<th>P(Z, &lt;i&gt;)</th>
<th>Luas Daerah</th>
<th>Ei</th>
<th>Oi</th>
<th>( E_i )</th>
</tr>
</thead>
<tbody>
<tr>
<td>35 - 40</td>
<td>34,5</td>
<td>-1.64</td>
<td>0.4500</td>
<td>0,0918</td>
<td>3,9</td>
<td>8</td>
<td>4,1574</td>
</tr>
<tr>
<td>41 - 46</td>
<td>40,5</td>
<td>-1.07</td>
<td>0.3582</td>
<td>0,1669</td>
<td>7,2</td>
<td>8</td>
<td>0,0944</td>
</tr>
<tr>
<td>47 - 52</td>
<td>46,5</td>
<td>-0.50</td>
<td>0.1913</td>
<td>0,2205</td>
<td>9,5</td>
<td>6</td>
<td>1,2776</td>
</tr>
<tr>
<td></td>
<td></td>
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<td>-----</td>
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</tr>
<tr>
<td>53</td>
<td>58</td>
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</tr>
<tr>
<td>58,5</td>
<td>64</td>
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</tr>
<tr>
<td>64,5</td>
<td>70</td>
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<td></td>
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<tr>
<td>70,5</td>
<td>76</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>76,5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\[ X^2 = 6,5348 \]

For \[ a = 5\% \], with \[ dk = 7 - 3 = 4 \] it is obtained \[ X^2 \] tabel = 9,49

Because of \[ X^2 < X^2 \] tabel, so the data is in the normal distribution.
Hypothesis

H₀: Data distributes normally
H₁: Data does not distribute normally

Formula

\[ X^2 = \frac{\sum (O_i - E_i)^2}{E_i} \]

Criteria
is accepted if \( X^2_{\text{tab}} < X^2_{\text{cal}} \)

Test of Hypothesis

Max. Value = 95
Min. Value = 65
Stretches of Value (R) = 65 - 95 = 30
Classes (k) = 1 + 3,3 log 43 = 6,390 = 7 kelas
Length of classes (P) = 4,28571 = 5

Distribution Table of the Post Test of Control Group

<table>
<thead>
<tr>
<th>Class</th>
<th>f_i</th>
<th>X_i</th>
<th>X_i²</th>
<th>f_i X_i</th>
<th>f_i X_i²</th>
</tr>
</thead>
<tbody>
<tr>
<td>65 – 69</td>
<td>7</td>
<td>67</td>
<td>4489</td>
<td>469</td>
<td>31423</td>
</tr>
<tr>
<td>70 – 74</td>
<td>11</td>
<td>72</td>
<td>5184</td>
<td>792</td>
<td>57024</td>
</tr>
<tr>
<td>75 – 79</td>
<td>12</td>
<td>77</td>
<td>5929</td>
<td>924</td>
<td>71148</td>
</tr>
<tr>
<td>80 – 84</td>
<td>9</td>
<td>82</td>
<td>6724</td>
<td>738</td>
<td>60516</td>
</tr>
<tr>
<td>85 – 89</td>
<td>2</td>
<td>87</td>
<td>7569</td>
<td>174</td>
<td>15138</td>
</tr>
<tr>
<td>90 – 94</td>
<td>1</td>
<td>92</td>
<td>8464</td>
<td>92</td>
<td>8464</td>
</tr>
<tr>
<td>95 – 99</td>
<td>1</td>
<td>97</td>
<td>9409</td>
<td>97</td>
<td>9409</td>
</tr>
<tr>
<td>Sum</td>
<td>43</td>
<td></td>
<td>3286</td>
<td></td>
<td>253122</td>
</tr>
</tbody>
</table>

\[
X = \frac{\sum f_i X_i}{\sum f_i} = \frac{3286}{43} = 76,4186
\]

\[
S' = \frac{43 \times 253122 - (3286)^2}{(3286)^2} = \frac{43(43 - 1)}{47,8682 - 6,91869} = \frac{43(43 - 1)}{47,8682 - 6,91869}
\]

List of the Observation Frequency of Control Group

<table>
<thead>
<tr>
<th>Kelas</th>
<th>Bk</th>
<th>Z_i</th>
<th>P(Z_i)</th>
<th>Luas Daerah</th>
<th>Ei</th>
<th>Oi</th>
<th>(O_i - E_i)²</th>
</tr>
</thead>
<tbody>
<tr>
<td>65 – 69</td>
<td>64,5</td>
<td>-1,72</td>
<td>0,4575</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>70 – 74</td>
<td>69,5</td>
<td>-1,00</td>
<td>0,3413</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>75 – 79</td>
<td>74,5</td>
<td>-0,28</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
For $a = 5\%$, with $dk = 7 - 3 = 4$ it is obtained $X^2$ tabel $= 9.49$

Because of $X^2 < X^2$ tabel, so the data is in the normal distribution
TEST OF THE NORMALITY DATA OF POST TEST EXPERIMENTAL GROUP (CLASS XI IPS-1)

Hypothesis

- $H_0$: Data distributes normally
- $H_1$: Data does not distribute normally

Formula

$$X^2 = \sum \frac{(O_i - E_i)^2}{E_i}$$

Criteria

is accepted if

$$H_0 \quad X^2_{\text{theory}} < X^2_{\text{tablehitung}}$$

Test of Hypothesis

- Max. Value = 95
- Min. Value = 65
- Stretches of Value (R) = 95-65 = 30
- Classes (k) = 1 + 3,3 log 43 = 6,390 = 7 kelas
  - 30/7 = 4,28571 = 5
- Length of classes (P) = 4,28571

Distribution Table of the Pre Test of Experimental Group

<table>
<thead>
<tr>
<th>Class</th>
<th>$f_i$</th>
<th>$X_i$</th>
<th>$X_i^2$</th>
<th>$f_iX_i$</th>
<th>$f_iX_i^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>65 – 69</td>
<td>3</td>
<td>67</td>
<td>4489</td>
<td>201</td>
<td>13467</td>
</tr>
<tr>
<td>70 – 74</td>
<td>6</td>
<td>72</td>
<td>5184</td>
<td>432</td>
<td>31104</td>
</tr>
<tr>
<td>75 – 79</td>
<td>12</td>
<td>77</td>
<td>5929</td>
<td>924</td>
<td>71148</td>
</tr>
<tr>
<td>80 – 84</td>
<td>11</td>
<td>82</td>
<td>6724</td>
<td>902</td>
<td>73964</td>
</tr>
<tr>
<td>85 – 89</td>
<td>6</td>
<td>87</td>
<td>7569</td>
<td>522</td>
<td>45414</td>
</tr>
<tr>
<td>90 – 94</td>
<td>4</td>
<td>92</td>
<td>8464</td>
<td>368</td>
<td>33856</td>
</tr>
<tr>
<td>95 – 99</td>
<td>1</td>
<td>97</td>
<td>9409</td>
<td>97</td>
<td>9409</td>
</tr>
<tr>
<td>Sum</td>
<td>43</td>
<td></td>
<td>3446</td>
<td>278362</td>
<td></td>
</tr>
</tbody>
</table>

$$X = \frac{\sum f_i X_i}{n}$$

$$S^2 = \frac{\sum f_i X_i^2 - (\sum f_i X_i)^2}{n(n-1)}$$

$$S = \sqrt{S^2}$$

$$S^2 = \frac{43 \times 263457 - (3351)^2}{43(43 - 1)}$$

$$S = 52,4086$$

$$S = 7,23938$$

List of the Observation Frequency of Experimental Group

<table>
<thead>
<tr>
<th>Class</th>
<th>Bk</th>
<th>$Z_i$</th>
<th>$P(Z_i)$</th>
<th>Luas Daerah</th>
<th>Ei</th>
<th>Oi</th>
<th>$E_i$</th>
<th>$(O_i - E_i)^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>65</td>
<td>65</td>
<td>-2,16</td>
<td>0,4846</td>
<td>0,0555</td>
<td>2,4</td>
<td>5</td>
<td>2,8691</td>
<td></td>
</tr>
<tr>
<td>70</td>
<td>69</td>
<td>-1,47</td>
<td>0,4292</td>
<td>0,1472</td>
<td>6,3</td>
<td>11</td>
<td>3,4494</td>
<td></td>
</tr>
<tr>
<td>75</td>
<td>79</td>
<td>-0,78</td>
<td>0,2820</td>
<td>0,2468</td>
<td>10,6</td>
<td>10</td>
<td>0,0354</td>
<td></td>
</tr>
<tr>
<td></td>
<td>79,5</td>
<td>-0,09</td>
<td>0,0352</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>80</td>
<td>84</td>
<td>0,2617</td>
<td>11,3</td>
<td>9</td>
<td>0,4514</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>84,5</td>
<td>0,60</td>
<td>0,2265</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>85</td>
<td>89</td>
<td>0,1755</td>
<td>7,5</td>
<td>5</td>
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\[ X^2 \ = \ 8,1367 \]

For \( a = 5\% \), with \( dk = 7 - 3 = 4 \) it is obtained \( X^2 \) tabel = 9,49
Because of \( X^2 \ < X^2 \) tabel, so the data is in the normal distribution
**TEST OF SIMILARITY BETWEEN TWO VARIANCES IN PRE TEST OF EXPERIMENTAL AND CONTROL GROUP**

**Hypothesis**

\[ H_0 : \sigma_1^2 = \sigma_2^2 \]
\[ H_a : \sigma_1^2 \neq \sigma_2^2 \]

**Test of Hypothesis**

To measure the hypothesis using the formula below:

\[ F = \frac{\text{Biggest Variance}}{\text{Smallest Variance}} \]

Ho is accepted if \( F \leq F_{1/2 \alpha (nb-1);(nk-1)} \)

Based on the formula, the result was:

<table>
<thead>
<tr>
<th>Variance Sources</th>
<th>Experimental G</th>
<th>Control G</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sum x</td>
<td>2060,00</td>
<td>2055,00</td>
</tr>
<tr>
<td>n</td>
<td>43</td>
<td>43</td>
</tr>
<tr>
<td>Variance ((s^2))</td>
<td>101,4673</td>
<td>102,7409</td>
</tr>
<tr>
<td>Standard deviation ((s))</td>
<td>10,07</td>
<td>10,14</td>
</tr>
</tbody>
</table>

Based on the formula, the result was:

\[ F = \frac{102,7409}{101,4673} = 1,013 \]

On \( \alpha = 5\% \) with:

\[ dk \text{ pembilang} = nb - 1 = 4 - 1 = 3 \]
\[ dk \text{ penyebut} = nk - 1 = 4 - 1 = 4 \]

\[ F_{0.025(42;42)} = 1,67 \]
Because of $F$ is in Ho area, it can be concluded that both experiment and control group have no differences.

**TEST OF DIFFERENCES BETWEEN TWO VARIANCES IN THE PRE TEST OF EXPERIMENTAL AND CONTROL GROUPS**

**Hipotesis**

$H_0 : \mu_1 = \mu_2$

$H_a : \mu_1 \neq \mu_2$

**Uji Hipotesis**

To measure the hypothesis using the formula below:

$$t = \frac{\bar{x}_1 - \bar{x}_2}{s \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

Where,

$$s = \sqrt{\frac{(n_1 - 1)s_1^2 + (n_2 - 1)s_2^2}{n_1 + n_2 - 2}}$$

Ho is accepted if $-t_{(1-1/2,\alpha)} \leq t \leq t_{(1-1/2,\alpha)(n_1+n_2-2)}$

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Dari data diperoleh:

<table>
<thead>
<tr>
<th>Variance Sources</th>
<th>Experimental G</th>
<th>Control G</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sum</strong></td>
<td>2060,0</td>
<td>2055,0</td>
</tr>
<tr>
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<td>43</td>
<td>43</td>
</tr>
<tr>
<td>$\bar{x}$</td>
<td>47,91</td>
<td>47,79</td>
</tr>
<tr>
<td>Variance ($S^2$)</td>
<td>101,4673</td>
<td>102,7409</td>
</tr>
</tbody>
</table>
Based on the formula, the result was:

\[
\begin{align*}
    s &= \sqrt{\left(\frac{43}{43} - \frac{-1,4673}{43} + \frac{2}{43} \cdot \frac{102,740}{9}\right)} = 10,1047 \\
    t &= \frac{47,91 - 47,79}{10,1047 \sqrt{\frac{1}{4} + \frac{1}{3}}} = 0,053
\end{align*}
\]

On \( \alpha = 5\% \) with \( dk = 43 + 43 - 2 = 84 \) is obtained \( t_{0.05(84)} = 1,99 \).

Because of \( t \) is in the Ho area, so it can be concluded that there are not differences between experimental and control group.
TEST OF SIMILARITY BETWEEN TWO VARIANCES IN POST TEST OF EXPERIMENTAL AND CONTROL GROUP

Hypothesis

H₀ : \( \sigma_1^2 = \sigma_2^2 \)
H₁ : \( \sigma_1^2 \neq \sigma_2^2 \)

Test of Hypothesis

To measure the hypothesis using the formula below:

\[ F = \frac{\text{Biggest Variant}}{\text{Smallest Variant}} \]

Ho is accepted if \( F \leq F_{1/2; \alpha}(nb - 1; nk - 1) \)

Based on the formula, the result was:

<table>
<thead>
<tr>
<th>Variance Sources</th>
<th>Experimental G</th>
<th>Control G</th>
</tr>
</thead>
<tbody>
<tr>
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<td>3200,0</td>
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<td>x</td>
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<td>74,42</td>
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<tr>
<td>Variance ( (S^2) )</td>
<td>52,4086</td>
<td>47,8682</td>
</tr>
<tr>
<td>Standart deviation ( (S) )</td>
<td>7,24</td>
<td>6,92</td>
</tr>
</tbody>
</table>

Based on the formula, the result was:

\[ F = \frac{52,4086}{47,8682} = 1,095 \]

On \( \alpha = 5\% \) with:

\[ dk \text{ pembilang} = nb - 1 = 4 - 1 = 3 \]
\[ dk \text{ penyebut} = nk - 1 = 4 - 1 = 3 \]

\[ F_{0.025}(42; 42) = 1,85 \]
Because of $F$ is in Ho area, it can be concluded that both experiment and control group have no differences.

### TEST OF DIFFERENCES BETWEEN TWO VARIANCES IN THE POST TEST OF EXPERIMENTAL AND CONTROL GROUPS

**Hypothesis**

$H_0 : \mu_1 \leq \mu_2$

$H_a : \mu_1 > \mu_2$

**Test of Hypothesis**

To measure the hypothesis using the following formula:

$$t = \frac{\bar{x}_1 - \bar{x}_2}{s \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

Where

$$s = \sqrt{\frac{(n_1 - 1)s_1^2 + (n_2 - 1)s_2^2}{n_1 + n_2 - 2}}$$

Ha is accepted if $t \geq t_{1-\alpha(n_1+n_2-2)}$

Based on the formula, the result was:

<table>
<thead>
<tr>
<th>Variance Sources</th>
<th>Experimental G</th>
<th>Control G</th>
</tr>
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<tbody>
<tr>
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<tr>
<td>$n$</td>
<td>43</td>
<td>43</td>
</tr>
<tr>
<td>$x$</td>
<td>78,14</td>
<td>74,42</td>
</tr>
<tr>
<td>Variance ($s^2$)</td>
<td>52,4086</td>
<td>47,8682</td>
</tr>
</tbody>
</table>
Based on the formula, the result was:

\[ s = \sqrt{\frac{1}{43} \left( \frac{52,4086}{43} + \frac{1}{2} \right) + \frac{1}{43} \left( \frac{47,8682}{43} \right)} = \frac{7,0808}{5} \]

\[ t = \frac{78,14}{\sqrt{\frac{1}{3} + \frac{1}{3}}} = 2,437 \]

On \( \alpha = 5\% \) with \( dk = 43 + 43 - 2 = 84 \) is obtained \( t_{0.95(84)} = 1,66 \) \( 2,437 \)

Because of \( t \) is in \( Ha \) area, so it can be concluded that experimental group is better than control group.
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Students conducted pre-test

Students discussed their material in Jigsaw group
Students conducted post-test

Students analyze the narrative text
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Name : Muhammad Yusuf Mauludi
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3. MTs Negeri Kendal
4. MA Negeri Kendal
5. Tarbiyah Faculty of IAIN Walisongo Semarang

Semarang, ..............................
The writer,

Muhammad Yusuf Mauludi