



**THE EFFECT OF RECIPROCAL TEACHING STRATEGY  
ON STUDENTS' READING COMPREHENSION IN NARRATIVE TEXT  
AT GRADE IX OF SMP NEGERI 5 PANYABUNGAN**

**A THESIS**

*Submitted to the State Institute for Islamic Studies Padangsidempuan as  
a Partial Fulfillment of the Requirement for the Graduate Degree of  
Islamic Education (S.Pd.I) in English*

**By:**

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**ENGLISH EDUCATION DEPARTMENT**

**TARBIYAH AND TEACHER TRAINING FACULTY  
STATE INSTITUTE FOR ISLAMIC STUDIES  
PADANGSIDIMPUAN**

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Term : Thesis  
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Appendix : 7 (seven) Exemplars

Padangsidempuan, 15<sup>th</sup> December 2015  
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Assalamu'alaikum Wr. Wb.

After reading, studying and giving advice for necessary revise on thesis belongs to Nur Inayah Hasibuan, entitle "*The Effect of Reciprocal Teaching Strategy on Students' Reading Comprehension in Narrative Text at Grade IX of SMP Negeri 5 Panyabungan*", we assume that the thesis has been acceptable to complete the requirement to fulfill for the degree of Graduate of Islamic Educational (S.Pd.I) in English, Tarbiyah and Teacher Training Faculty in IAIN Padangsidempuan.

Therefore, we hope that the thesis will soon be examined in front of the thesis examiner team of English Department of Tarbiyah and Teacher Training Faculty IAIN Padangsidempuan. That is all and thanks you for the selection.

Wassalamu'alaikum Wr. Wb.

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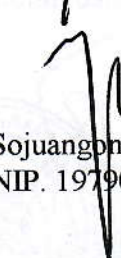
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**LEGALIZATION**

**Thesis : THE EFFECT OF RECIPROCAL TEACHING STRATEGY  
ON STUDENTS' READING COMPREHENSION IN  
NARRATIVE TEXT AT GRADE IX OF SMP N 5  
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4. Mrs. Hj. Zulhimma, S.Ag.,M.Pd., the Dean of Tarbiyah and Teacher Training Faculty.
5. Mrs. Rayendriani Fahmei Lubis, M.Ag., the Leader of English Education Department.
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Finally, I realize that there are some weaknesses in this thesis. Therefore, I welcome to all good and value critics that can improve this thesis.

Padangsidimpuan, 16<sup>th</sup> December 2015

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### **ABSTRACT**

This research focused about the effect of reciprocal teaching strategy on students' reading comprehension in narrative text at grade IX of SMP N 5 Panyabungan. The problems of this research were most of the students still got low score about 70 in English subject especially reading comprehension and the students had lack of reading interest and did not understand text well and also they wasted time to get the meaning in dictionary; finally most of the students failed in reading comprehension. The aim of this research was to examine the significant effect of reciprocal teaching strategy on students' reading comprehension in narrative text at grade IX of SMP N 5 Panyabungan.

This research has been done by experimental research. The population of this research was the grade IX of SMP N 5 Panyabungan. The total of population were eight classes. Then, the sample was divided into two classes. The first class (twenty two students) as the experimental class, while the second class (nineteen students) as the control class. To collect the data, researcher used test for measuring Students' Reading Comprehension. To analyze the data, the researcher used t-test.

Data analysis of the post-test showed that score of the students in the experimental class was significantly higher than score of the students in the control class at the level of significance 5% with degree of freedom  $(n_1 + n_2 - 2) = 39$ . Mean score was got in the experimental class is 73.09, highest score is 92 and smallest score is 40. While, mean score was got in the control class is 63.78, highest score is 88 and smallest score is 40. The  $t_{\text{count}}$  of observation is 2.75 while the  $t_{\text{table}}$  is 1.682. Therefore, the hypothesis was accepted. So, there was significant effect of Reciprocal Teaching Strategy on Students' Reading Comprehension in Narrative Text at Grade IX of SMP N 5 Panyabungan.



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## CHAPTER I

### INTRODUCTION

#### A. Background of the Problem

Nowadays, English has been an important language. It is widely used by most people in this world as medium of communication for International relation. It is also widely used the language of the printed information. A great of the world scientific and especially education is written and published in English.

In Indonesia, the needed of English as foreign language has developed. It is an instrument to transfer modern knowledge, culture, and to grow up International relation. International language is the concept of the English as a global means of communication in numerous dialects, and also the movement towards an International standard for the language.<sup>1</sup> Realizing how important this language, our government had determined English as the first foreign language which taught in Indonesia. By English, the students are hoped to enrich their knowledge, so they are able to apply their knowledge in the life.

In English, there are four skills that must be mastered, namely; reading, speaking, listening and writing. Reading is one of the four language skill that is used to grasp the ideas that presented to get the information, reading is important to be learned and mastered by human. Reading is a way to get information from something

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<sup>1</sup> M.F. Patel & Praveen M. Jain, *English Language Teaching (Methods, Tools, & Technique)*, (Jaipur: Sunrise Publishers & Distributers), p.6.

that was written, reading is an interaction between readers and text, reading holds important matter in teaching English.

Reading is an important language skill either for academic purpose or daily life demands. Students find information which are presented in written form everyday and almost everywhere in the world, which demands students to read them in order to fulfill their needs, besides reading in educational setting is the commonest way of learning beside listening, practicing and other ways modeled by the scientist of education. The following illustration will present some significance of reading for students' life.

In Holy book, Allah has ordered people to read al- Quran as much as people can, Allah has said in holy book, suroh Al-Alaq 1-5 as follow:

أَقْرَأْ بِاسْمِ رَبِّكَ الَّذِي خَلَقَ ﴿١﴾ خَلَقَ الْإِنْسَانَ مِنْ عَلَقٍ ﴿٢﴾

أَقْرَأْ وَرَبُّكَ الْأَكْرَمُ ﴿٣﴾ الَّذِي عَلَّمَ بِالْقَلَمِ ﴿٤﴾ عَلَّمَ الْإِنْسَانَ مَا لَمْ يَعْلَمْ ﴿٥﴾

The meaning:

Recite in the name of your lord who created (1). Created man from a clot of congealed blood (2). Recite and your lord are most generous (3). Who taught by the pen (4). Taught man what he did not know (5).<sup>2</sup>

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<sup>2</sup> Muhammad Taqi-ud-Din Al-Hilali and Muhammad Muhsin Khan, *Translation of the Meanings of the Noble Qur'an in the English Language* (Madinah: King Fadh Complex for the Printing of Holy Qur'an, 1454), p. 840.

According to suroh Al-Alaq 1-5, thus verses have described to people how important reading in people life is, until Allah ordered human to read, it is caused from reading act students can comprehend something, and also from the reading of nature in around people, students will comprehend that there are creature of nature, that is Allah.

Then, the reading students will know their creature, as a result from verses above Allah have thought people how to know him, and how to know life and also to know everything that students' want. From this verse, Allah has told to people that he has taught people everything and he has created people.

Finally, reading can develop our knowledge. Learning to read well and learning to read better is a key to gaining our knowledge. We can learn, add our knowledge and understand about some information when we read. So, reading is an activity to get the information from our reading like read al Quran, the novel, history, reading text book, and the others.

Based on researchers' survey, the most students can't comprehend the text well. They don't know the meaning of sentence, and they cannot reach idea for what they have read. If the teacher explains about the lesson or give them the text they don't understand because they don't know the meaning of the text.<sup>3</sup> Therefore, most of them state that English subject is difficult, and can make them lazy to learn. So, the process of teaching reading can't run well.

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<sup>3</sup> Syarifah Shima, *Private Interview*, Date 23, Month 12, Year 2014.

The ability of most students in reading narrative text is low. Based on the observation the researcher saw that the criteria minimum learning mastery (KKM) at SMP Negeri 5 Panyabungan has average 85.<sup>4</sup> Meanwhile, in the score can be seen in DKN and the students got the English score about 70.<sup>5</sup> It shows that the students' achievement of English is not suitable with expectation.

Then, the students are passive in the class, it caused the strategy of teaching is not suitable. The teachers usually teach reading comprehension by translating the text or use conventional strategy. Therefore, the students always open the dictionary when they want to find out the main idea of the reading text. So, students and teacher must have reading strategy to be easier and better to comprehend the text, because reading strategy is important for student and teacher.

Based on the explanation above, researcher can made inference that reading very important in our live especially for students. However, the reading is still a big problem at SMP Negeri 5 Panyabungan. The interesting of student English study are low, especially students' reading comprehension in narrative text.

To solve the problem in reading, there are some alternative of reading strategies that are available and applicable. As researcher knew that there are many strategies that can solve students' problem in reading comprehension, and also can increased the students' ability in reading, such as Skimming, Scanning, Silent

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<sup>4</sup> Buku kumpulan nilai SMP Negeri 5 Panyabungan, *Private Document*, (SMP Negeri 5 Panyabungan: Desember 23, 2014 at 12 p.m).

<sup>5</sup> SMP Negeri 5 Panyabungan, *Daftar Kumpulan Nilai (DKN)*, (Panyabungan: SMP Negeri 5 Panyabungan, Tahun ajaran 2014/2015).



Reading, P2R (Preview Read Review), SQ3R (Survey, Question, Read, Recite, and Review), and Reciprocal Teaching Strategy.

From the explanation above, the researcher chose reciprocal teaching strategy. Reciprocal teaching strategy is an excellent learning strategy that is found to be effective in improving the reading and comprehension skills of young students. Annemarie Sullivan Palincsar said “Reciprocal teaching is best represented as a dialog between teachers and student in which participants take turns assuming the role of teacher”.<sup>6</sup> Then, Reciprocal teaching is based on Vygotsky’s theory of the fundamental role of social interaction (dialog) in the development of cognition. Thinking aloud and discussion of thoughts aid in clarification and revision of thinking and learning, therefore developing cognition.<sup>7</sup> While, Brown stated “the strategies embedded in reciprocal teaching represent those that successful learners engage in while interacting with text”.<sup>8</sup> So, reciprocal teaching is a strategy that asks students and teachers to share the role of teacher by allowing both to lead the discussion about a given reading.

The view of above explanation and reasons, the researcher interested in conducting experimental research of which purpose to solve student’s problem in reading comprehension by title **“The Effect of Reciprocal Teaching Strategy on**

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<sup>6</sup>Uttara Manohar, “Reciprocal Teaching” retrieved <http://www.buzzle.com/articles/reciprocal-teaching-strategies.html> accessed on Monday, 30<sup>th</sup> April 2015.

<sup>7</sup> L. S. Vygotsky, *Mind in Society: The development of the higher psychological process*, (Cambridge, MA: The Harvard University Press, 1978), p. 86.

<sup>8</sup> A. L. Brown, *Metacognitive Development and Reading*. In R.S. Spiro, B.B. Bruce & W.L. Brewer (Eds), *Theoretical Issues in Reading Comprehension*, (Hillsdale, NJ: Erlbaum, 1980), p. 67.

**Students' Reading Comprehension in Narrative Text at Grade IX Student of SMP Negeri 5 Panyabungan**". The researcher explored the difference of reading achievement after applying the strategies in the classroom.

#### **B. Identification of the Problem**

Based on observation of the researcher about students' reading comprehension, there were still many students who can't comprehend the text when they read, the problem occurred because they have less vocabularies, and then, more students are passive in the class, it caused the strategy of teaching is not suitable. The Other factor is students do not have a good a strategy in reading or they don't know reading strategy. It caused the teacher don't use the strategy in reading process.

From the problems above, the researcher only focused to solve their problem in reading comprehension by using strategy, where they are very difficult to comprehend the text because they did not use the strategy well, when they are reading a text. Therefore, researcher used strategy in teaching reading comprehension.

#### **C. Limitation of the Problem**

Based on the identification of the problems above, the researcher focused the problems in students' reading narrative text that have been conducted by doing reciprocal teaching strategy. This research was conducted by experimental research at grade IX of SMP Negeri 5 Panyabungan.

#### **D. Formulation of the Problem**

The formulation of the problem “was there the significant effect of using reciprocal teaching strategy on students’ reading comprehension in narrative text at grade IX of SMP Negeri 5 Panyabungan?”

#### **E. Aim of the Research**

From the formulation above, the aim of this research was to examine the significant effect of reciprocal teaching strategy on students’ reading comprehension in narrative text at grade IX of SMP Negeri 5 Panyabungan.

#### **F. Significances of the Research**

The result of the research is expected to be useful:

1. For enriching readers about the scientific strategy in reading, especially English students at IAIN Padangsidimpuan.
2. For headmaster to give suggestion to English teachers to improve learners’ ability in English especially reading.
3. For English teachers as a tool to compare and to improve the science especially about using strategy in reading comprehension.
4. For the other writers in conducting further researchers in the same topic.

#### **G. Definition of Operational Variables**

There are some terms that used in this research, they are:

1. Reciprocal Teaching Strategy is a great way to teach students how to determine important ideas from a reading while discussing vocabulary, developing ideas and questions, and summarizing information.

2. Students' Reading Comprehension is the ability of the reader to understand or get the information what you read and how to comprehend it.
3. Narrative Text is the text tells about the last time. It tells about the real action or the unreal action. Next, some story on the novel, tales, fable, legend and so on used narrative

#### **H. Outline of the Thesis**

The systematic of this research is divided into five chapters. Each chapter consists of many sub chapters with detail as follow:

In chapter I, it is consist of background of the problem, identification of the problem, limitation of the problem, formulation of the problem, aims of research, significances of the research, and definition of operational variables.

In chapter II, it is consist of the theoretical description, review of related finding, conceptual framework, and hypothesis.

In chapter III, it is consist of research methodology and in research methodology consist of time and place of the research, research methodology, population and sample, instrument of research, the techniques of data collection and the last the techniques of data analysis and outline of the thesis.

In chapter IV, it is the result of the research talking about the analysis of data. This chapter consists of description of data, hypothesis testing, discussion and the threats of research.



Finally, in chapter V consist of conclusion and suggestion. Researcher must write down the conclusion about the script, and give the suggestion that can improve his script.

## **CHAPTER II**

### **THEORETICAL DESCRIPTION**

#### **A. Theoretical Description**

Theories were very necessary for explaining some concepts or terms applied in research. The theories are as follows:

##### **1. Description of Reciprocal Teaching Strategy**

###### **a. Definition of Reciprocal Teaching Strategy**

At the first time, applying reciprocal teachings the teacher informs about introduce a learning approach/strategy; explain the purpose, benefit and procedure. Then, start from modeling of read a paragraph a reading. Then, explain and teach that during or after read there are activities that must be done. They are:

- 1) Think the important questions that can be asked from what have you read; appropriate with the reading; and believing can answering;
- 2) Make summarizing about the most information from the reading;
- 3) Predict what will the impossible to discussed continue: and
- 4) Write if there are unclear things or not logic from a part, then check what we can be success to make logic things.<sup>1</sup>

After the students understand skill above the teacher will show a student to change the role in the group. The first showed the student as a leader of discussion, then in sequence every students feel/do role as

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<sup>1</sup> Trianto, *Mendesain Model Pembelajaran Inovatif-Progresif*, (Jakarta: Kencana Prenada Media Group, 2009), p. 174.

teacher. After the introduction is over, the teacher explains to student why, when, and how the strategy is used.

Annemarie Sullivan Palincsar explains “Reciprocal teaching is best represented as a dialog between teachers and students in which participants take turns assuming the role of teacher”.<sup>2</sup> While, Brown stated “the strategies embedded in reciprocal teaching represent those that successful learners engage in while interacting with text”.<sup>3</sup> So, it can be concluded that reciprocal teaching is an excellent learning strategy that is found to be effective in improving the reading and comprehension skills of young students.

Reciprocal teaching is an approach to student teaching in learning strategies. It is a constructive approach that based on Principe of making/question generating, where the metacognitive skills is taught through direct instruction and training model by teacher to revise doing student reading comprehension is low. Reciprocal teaching especially built to help the teacher use together conversation to teach reading comprehension independently at the class.<sup>4</sup> So, reciprocal teaching is an approach in student teaching.

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<sup>2</sup>Uttara Manohar, “Reciprocal Teaching” retrieved <http://www.buzzle.com/articles/reciprocal-teaching-strategies.html>, accessed on Monday, 30<sup>th</sup> April 2015.

<sup>3</sup> A. L. Brown, *Metacognitive Development and Reading*. In R.S. Spiro, B.B. Bruce & W.L. Brewer (Eds), *Theoretical Issues in Reading Comprehension*, (Hillsdace, Ng: Erlboum, 1980), p. 67.

<sup>4</sup> Trianto, *Mendesain Model...* p. 173.

Reciprocal Teaching can be used during read-aloud, shared and guided reading, and literature circles. Students learn the strategies through teacher modeling and think-aloud so that they can eventually take turns coaching other students through the process. Following the Gradual Release of Responsibility Model, only with student understand and use the four comprehension strategies with support should they be expected to apply them independently.<sup>5</sup> So, the researcher concluded that the reciprocal teaching strategy is a good strategy to get or find out the information and ideas from the text.

b. Procedure of Reciprocal Teaching Strategy

In the next stage reciprocal teaching through daily procedure such as:<sup>6</sup>

- 1) Prepared reading text based on materiel that finished.
- 2) Explained that the first stage the teacher as act teacher (model).
- 3) Student is asked to silent read part of reading that chosen. To make easy do it paragraph by paragraph firstly.
- 4) If student had finished first part, done the models are:
  - a) The question that I think will ask the teacher.
  - b) Teacher gives opportunity student to answer the question.
  - c) Summarize main idea in the paragraph.

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<sup>5</sup> Miriam P. Trehearne and Roz Doctorow, *Reading Comprehension: Strategies That Work*, (Newark: DE International Reading Association, 2000), p. 169.

<sup>6</sup> Trianto, *Mendesain Model...* p. 175-176.

- d) Give opportunity student to predict thing will be discussed in the next paragraph.
- e) Student is asked to give comment about teaching is doing and about the reading.
- f) The next stage be continue with part of reading/next paragraph, and chosen a student will make role as “teacher-student”
- g) Student is trained/directed make role as “teacher-student” as long as the activity.
- h) At the next days, as long as teacher decrease role in dialog, therefore “teacher- student” and the other student have self initiative to control the activity.

The other stage of Reciprocal Teaching Strategy, they are:<sup>7</sup>

#### 1) Predicting

Predicting is the leader asks the students to read the topic sentence or subheading and then predict what the rest of the paragraph will be about. Since the topic sentence tells what will follow, you can teach the students how to skim read at this point.

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<sup>7</sup> Edu, Lewin K, *Teaching Reading and Viewing Strategies and Activities for Years, 1-9*, (Melbourne Street South Brisbane: Queensland Studies Authority, 2008), p. 47-48.



## 2) Reading

This card invites the students to read up to a certain point. They can read silently, to the group, to a partner or in unison, to add variety.

## 3) Clarifying

This card gives the readers the opportunity to have any unfamiliar words, locations or pronunciations 'made clear'. At first the students may not volunteer that they don't know something. So you might pick out a word or a place and ask the group to clarify it. If all members don't offer to answer the question, and then talk about how the purpose of reading is to gain meaning and if we are not gaining meaning, then we are simply 'barking at the print'.

## 4) Questioning

Ask the students to generate the questions at this point. The questions can be answered orally or, depending on your purpose, you might like the group to record some of their questions and answers.

## 5) Summarizing

This is the perfect moment to teach key points, note-taking and to some extent paraphrasing.

## 6) Swap leaders

Passes leadership to another student.

### c. Conventional Strategy

In generally, there are two kinds of teaching strategy that can be used to teaching reading comprehension. They are the conventional strategy, which refers to strategy that is usually used by teacher at school in which the teacher ask and the students answer, and the alternative technique develop by experts that are considered better than the conventional strategy since they emphasize on students' active participation, so they can increase their learning motivation.<sup>8</sup>

Conventional strategy is the strategy or the way that usually used by the teachers to teach the text to students. Then, conventional strategy is the strategy used by the teachers based on mutual agreement in a school. In addition, it uses the traditional way in teaching and learning process. The researcher concluded that conventional strategy is the way that is used by the teachers in teaching a material based on the agreement of the teacher at school.

There are some procedures of conventional strategy, they are:

- 1) Every student is given a passage consists of some paragraph.
- 2) Teacher assigns the students to read the paragraph.
- 3) Student search the topic, main idea, supporting, concluding, and vocabulary.

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<sup>8</sup>Jhon Dryden, "Conventional Strategy" retrieved [http://www.britannica.com/EBchecked/topic/421797/strategy/52993/conventional -strategy](http://www.britannica.com/EBchecked/topic/421797/strategy/52993/conventional-strategy), accessed on 12<sup>th</sup> June 2015.

- 4) Teacher asks any of students to present and explain the topic, main idea, supporting, concluding, and vocabulary.
- 5) To measure students' comprehension toward the paragraph, at the end of the session, teacher gives a quiz on material given.

## 2. Description of Reading Comprehension

### a. Definition of Reading Comprehension

According to Douglas Brown that “reading is a process negotiating meaning; the reader brings to the text a set of schemata for understanding it, and it is take the product of that interaction” .<sup>9</sup> According to Marilyn that “reading is one of the principal means of obtaining information. The information may be in printed form, such us a book magazine, or in electronic form on a computer screen. Reading is an efficient way to learn because it allows you to control the flow of information”.<sup>10</sup> Furthermore David Nunan States that “reading is a fluent process of readers combining information from a text and their own background knowledge to build meaning”.<sup>11</sup> While according to Kathleen that “reading, at first, may appear to be routine activity in which individual words are combined to

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<sup>9</sup> Douglas Brown, *Language Assessment*, (USA: Longman, 2004), p. 189.

<sup>10</sup> Sue C. Camp. Marilyn L. Satterwhite, *Collage and English Communication*, (New York: Mc Green- Hill, 2003), p. 68.

<sup>11</sup> David Nunan, *Practical English Language Teaching*, (New York: Mc Graw Hill, 2003), p. 68.

produce meaning”.<sup>12</sup> So, reading is an activity to find out the information from the reading.

Reading is a receptive skill, it is transactional between a reader and writer, reading is an interactive process between a reader and the text. As a result a writer can communicate with a reader through a text, and also reading is an interactive process between the reader and text. “Reading is an essential skill for learners of English as a second language”.<sup>13</sup> For most of these learners, it is the most important skill to master in order to ensure success not only in learning English but also in learning in any content class where reading English is required. With strengthened reading skills, learners will make greater progress and development in all areas of learning. Therefore, reading is a fluent process of reader combining information from a text or passage and their own background knowledge in bringing meaning to and getting meaning from printed or written material.

Actually reading a textbook is how reader can build a complete comprehension base on many words structurally in a text. And also the process must be routine to enrich our comprehension what the text tell about.

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<sup>12</sup> Kathleen T. McWhorter, *Efficient and Flexible Reading*, (USA: Harper Collins Publisher, 1992), p. 23.

<sup>13</sup> David Nunan, *Practical English...* p. 69.

Further, Albert J. Haris states:

Reading is a complex cognitive process of decoding symbols in order to construct or derive meaning (reading comprehension). It is a means of language acquisition, of communication, and of sharing information and ideas. Like all language, it is a complex interaction between the text and the reader which is shaped by the reader's prior knowledge, experiences, attitude, and language community which is culturally and socially situated. The reading process requires continuous practice, development, and refinement. And then reading is the meaningful interpretation of written or printed verbal symbol. It can apply also to the interpretation of mathematical symbols, codes, and other symbolic systems. Beside that reading is extension of oral communication and built upon listening and speaking skills.<sup>14</sup>

So, reading is the readers' activities to get meaning or message from an author. An author ell the meaning or massage to reader in printed or written material<sup>15</sup>. If an author cannot build a complex meaning in a text, they reader will not understand what text tell about.

#### b. Types of Reading

There are some types of reading, they are:<sup>16</sup>

##### 1) Choral Reading

Eventhough choral reading is relatively uncommon in modern language class. This type of reading is still important in improving learners' pronunciation. Working in groups will make language learners feel confident to pronounce words in foreign accent and practice is really recommended in this method.

##### 2) Silent Reading

Silent reading can begin with reading aloud by the teacher. The teacher's reading is a model in accuracy and expressiveness. It is thought that the great amount of interest in reading is secured by a

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<sup>14</sup> Albert J.Haris, *How to Increase Reading Ability*, (New York: David Mckay Company, 1969), p. 3.

<sup>15</sup> Henry Guntur Tarigan, *Membaca Sebagai Sebuah Keterampilan Berbahasa*, (Bandung: Angkasa, 2005), p. 6.

<sup>16</sup> Ag. Bambang Setiyadi, *Teaching as A Foreign Language*, (Yogyakarta: Graha Ilmu, 2006), p. 67-69

happy combination of reading aloud by learners, reading aloud by the teacher and silent reading by the learners. To check whether the learner understand what they have read, the teacher can test them by giving questions based on the text, by translation or by summarizing the text.

### 3) Intensive Reading

Intensive reading lesson may proceed as follows:

- a) While the books are closed, the students listen to the teacher.
- b) The new word, phrases, and idioms are written on the board. They are pronounced and used in original sentences.
- c) The students open their books and the teacher reads the first part of the selection aloud.
- d) The selection is now read by the class, alternating silent and oral reading.
- e) The selection may now be summary in their mother tongue or in the foreign language.

### 4) Extensive Reading

Extensive reading is silent reading but done outside of class. In order for language learners to have fewer problems in extensive reading, the teacher should explain first difficult passages or new words.

### 5) Supplementary Reading

Supplementary reading is also done out of class. Language learners are free to choose reading material. Reading material may consist of newspaper, bulletins or magazines in the target language.

## c. Level of Comprehension

According to Friend and Bursuck, there are three levels of comprehension that must be achieved in reading comprehension, including analytical exposition text.<sup>17</sup> They are:

### 1) Literal Comprehension

Reading for literal comprehension, which involves acquiring information that is directly stated in concerns in main ideas, details, causes and effect also sequences understanding vocabulary, sentences and paragraph meaning.

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<sup>17</sup> M. Friend and W. Bursuck, *Including Students with special needs: A practical guide for classroom teachers*, (Boston: Allyn and Bacon, 2006), p. 177.



## 2) Interpretative Reading

Interpretative reading between lines or making inferences, it is the process of deriving ideas that are implied rather than directly stated. The skills of interpretative reading include:

- a) Inferring the main ideas of passages in which the main ideas are not directly stated
- b) Inferring cause and effect relationship when they are not directly stated
- c) Inferring relevant adverb
- d) Inferring relevant word
- e) Inferring committed words
- f) Detecting mood
- g) Detecting the author's purpose in writing
- h) Drawing conclusion

## 3) Critical Reading

The levels of critical reading comprehension are: the students can analyze, evaluate, and personally reaching to information presented in a passage. And also there are two abilities, namely personally reaching to information in a passage indicating its meaning to the reader and also analyzing and evaluating the quality of written information in terms of some standard. It can be concluded that critical reading includes the ability in:

- a) Distinguishing between the fact and opinion
- b) Evaluating the accuracy and the appropriateness of the information given in the text
- c) Recognizing persuasive statement

## d. Purposes of Reading

The main goals of reading are to get and find information include content and meaning of the text based on the purpose.<sup>18</sup>

Tarigan stated are some goals of reading such as:

- 1) Reading is for identifying important information.
- 2) Reading is for main ideas.
- 3) Reading is for finding the specific information.
- 4) Reading is for underlining the important information.
- 5) Reading is to classify the difficult word.
- 6) Reading is to evaluate.

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<sup>18</sup> Henry Guntur Tarigan, *Membaca sebagai...* p. 9.

7) Reading is to compare or contrast.

There are five purposes of reading, they are:<sup>19</sup>

1) Reading for Pleasure

One of purpose for reading is for pleasure. It means that reading is not for pressure. For instance, if the readers read recipes for pleasure, indirectly the readers are as unusual as the guy who reads about molecules for pleasure. Most people read recipes with the purpose of using or applying the information the readers read. Based on explanation above, the reader can read everything, not only read the journal, textbook, magazine, thesis and others.

2) Reading for Practical Application

Another purpose for reading is to gain the information which the reader can apply to or use in a particular situation. For example, when a reader reads directions in order to put a model airplane together, or a reader reads a shop manual to learn how to run a piece of equipment. It means that the reader is reading with the purpose of gaining information which they can apply or use.

3) Reading for General Ideas

Actually, it is not always necessary to read every word on a page. If the purpose of reading is to get a general idea of the material being read, then the reader can read at faster speed, skipping sections and looking only for main ideas reading bold print headings and sub-headings and summary statements usually presented at the end of the material, only reading the questions at the end of a chapter in a textbook can give the reader a general idea of the content.

4) Reading to Locate Specific Information

One of purpose in reading is to locate specific information. When the readers know what they are looking for. The readers can skim and skip over material at very rapid rates.

5) Reading to Critically Evaluate

A good education should help the reader form their own opinions about things. Reading critically is the process of being aware of an author's intent or the point of writing, his use of facts, his attitude and bias toward his subject matter. Critical evaluate requires that the readers talk back to the author rather than merely accept what the readers read.

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<sup>19</sup> W. Royce Adams, *Reading Skills A Guide for Better Reading*, (London: Cambridge University, 1998), p. 8-11.

According to Jeremy Harmer, there are several purposes of reading. He said that the purpose of reading is different in the way. It saw what kind of the text will be read. Next, there are the purposes or the reason for reading.<sup>20</sup>

- 1) Instrumental: a large amount of the reading takes place because it will help us to achieve some clear aim. Thus, for example, we read the road sign so that we know where to go. We read the instructions on the ticket because we need to know how to operate it.
- 2) Pleasurable: the people read magazine or spend hours buried in the Sunday paper, other go to poetry readings, read illustrated cartoon or photo-story.
- 3) For General Understanding: good reader is able to take in a stream of discourse and understand the gist of it without worrying too much about the details. Reading for such 'general' comprehension means not stopping for every word, not analyzing everything that the writer includes the text. It can use skimming.
- 4) For specific information: in contrast to reading for gist, we frequently go to written text because we want specific detail. Reading in this skill is frequently referred to as scanning.
- 5) For detail information: sometimes we read in order to understand everything we are reading in detail. This is usually the case with written instruction or direction, or with the description of scientific procedures, it happens when someone gives us the address and telephone number and we write down all the detail.
- 6) Interpreting text: reader is able to see beyond the literal meaning of word on the passage, using a variety of clues to understand what writer implying. Successful interpreting in this kind depends to a large extent on share schemata.

So, the researcher concludes the purpose of reading are to get or find the important information, finding specific information, and to evaluate

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<sup>20</sup> Jeremy Harmer, *The Practice of English Language Teaching (Third Edition Completely Revises and Update)*, (England: Longman, 2003), p.200-202.

reading. It have talked above that comprehension is ability to construct the language to take the information from the text.

e. Assessment of Reading Comprehension

Assessment as the act of collecting information an making judgments on a language learners' knowledge of a language and ability to use it.<sup>21</sup>

Any assessment of reading must begin with the purpose of the assessment.

At least four major purposes for classroom-based assessment of reading have been identified:

- 1) Studying, evaluating, or diagnosing reading behavior.
- 2) Monitoring student progress.
- 3) Supplementing and confirming information gained from standardized and criterion-referred text.
- 4) Obtaining information not available from other sources.<sup>22</sup>

Reading comprehension needs evaluation. Evaluation is broader concept than assessment it involves collecting and interpreting information (which will usually include assessment data) for making decision about the effectiveness of a particular program. In assessing reading comprehension, the teacher can give test to students.

There are many kinds of test, they are:

- 1) Reading aloud  
The test taker sees separate letters, words, and/or short sentences and read the aloud, one by one, in the presence of an administrator.
- 2) Multiple choices

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<sup>21</sup> David Nunan, *Practical English...* p. 310.

<sup>22</sup> Michel O' Malley and Lorraine Valdes Pierce, *Authentic Assessments for English Language Learners*, (USA: Wesley Publishing, 1996), p. 99.

Multiple choice responses are not only a matter of choosing one of four or five possible answers. Other formats, some of which are especially useful at the low levels of reading, include same/different, circle the answer, true/false, choose the letter, and matching.

3) Matching tasks

At this test, the test taker's task is simply to respond correctly, which makes matching an appropriate format.

4) Gap-filling tasks

Gap filling tasks is to create sentence completion items in which test taker read part of a sentence and then complete it by writing a phrase.

5) Short answer task

A reading passage is presented, and the test taker reads questions that must be answered, usually in written form, in a sentence or two.<sup>23</sup>

So, the researcher uses the five indicators above for assessment of reading and chooses multiple choices for test in this research.

### 3. Definition of Narrative Text

a. Definition of Text

Text is forms a piece of language use or a record of a communicative act, or the so called language which is functional. In general, texts which have the same sorts of meaning or the same structural elements are said to be the same text type.

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<sup>23</sup> Douglas Brown, *Language Assessment Principle and Classroom Practices*, (Pearson Longman: Priyanuada Abeywickrama), p. 230-247.

According to American Heritage Dictionary Text is a subject referring to a topic and is a noun refers to:<sup>24</sup>

- 1) The original words of something written or printed, as opposed to a paraphrase, translation, revision, or condensation.
- 2) The words of a speech appearing in print.
- 3) Words, as of a libretto, that are set to music in a composition.
- 4) Words treated as data by a computer.
- 5) The body of a printed work as distinct from headings and illustrative matter on a page or from front and back matter in a book.
- 6) One of the editions or forms of a written work: *After examining all three manuscripts, he published a new text of the poem.*
- 7) Something, such as a literary work or other cultural product, regarded as an object of critical analysis.
- 8) A passage from the Scriptures or another authoritative source chosen for the subject of a discourse or cited for support in argument.
- 9) A passage from a written work used as the starting point of a discussion.
- 10) A text book.

So, the researcher concluded that text is the original words or a passage from a written work as opposed to a paraphrase, translation, revision, or condensation.

#### b. Kinds of Text

There are many kinds of text learnt by students of Junior High School in learning the reading skill like narrative, descriptive, recount and procedure text. According to Djuharie, kinds of text are narrative,

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<sup>24</sup> Adeulfayani, "Narrative Text" retrieved <http://www.answers.com/topic/text>, accessed on Sunday, 17<sup>th</sup> May 2015.



description, report, explanation, discussion, procedure, spoof, recount, anecdote, news item and exposition.<sup>25</sup>

### c. Narrative Text

Narrative is any written English text in which the writer wants to amuse, and to deal with actual or vicarious experience in different way.<sup>26</sup>

It is made to separate an experience past time that problematic, entertain and give moral value to the readers.<sup>27</sup> A.S Hornby in Oxford Advanced

Learner's Dictionary defines: "Narrative text is a description of events."<sup>28</sup>

Then, according to David Butt "Narrative is to construct a pattern of events with a unexpected outcome that entertain and instructs the reader or listener".<sup>29</sup> So, narrative text is an event or moment that has occurred in the past time.

The basic purpose of narratives is to entertain, i.e. to gain and hold the reader's interest in a story. Similarly Pardiyono says that narrative text has purpose to amuse or entertain and gives good lesson to us and the other people who listen about narrative.<sup>30</sup>

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<sup>25</sup> Otong Setiawan Djuharie, *Genre Dilengkapi 700 Soal Uji Pemahaman*, (Bandung: CV. Yrama Widya, 2007), p. 39.

<sup>26</sup> Sanggam Siahaan & Kisno Shinoda, *Generic Text Structure*, (Pematang Siantar: Graha Ilmu, 2008), p. 73.

<sup>27</sup> Pardiyono, *Pasti Bisa! Teaching Genre-Based Writing*, (Yogyakarta: Penerbit Andi, 2007), p. 102

<sup>28</sup> AS Hornby, *Oxford Advanced Learner's Dictionary*, (USA: Macmillan, 1991), p. 286.

<sup>29</sup> David Butt and et al, *Using Functional Grammar*, (Sydney: MacQuarie University, 2003), p. 217.

<sup>30</sup> Pardiyono, *Teaching Genre-Based Writing*, (Yogyakarta: Andi OFFSET, 2007), p. 94.

There are many types of narrative text. They are typically imaginary but can be factual. They include fairy stories, mysteries, science fiction, choose-your-own- adventure, romance, horror stories, parables, fables and moral tales, myths and legends, and historical narratives.<sup>31</sup>

According to Otong Setiawan Djuharie, the language elements used in writing narrative text are noun, individual participant, past tense, conjunction, action verb, and saying verb.<sup>32</sup>

**Table. 1**  
**Generic Structure of Narrative Text**

Text Elements	Content
Orienta tion	An introduction to the characters and setting of the events/ story.
Compli cation (events that lead to climax)	The events which lead to the climax. It explores the conflict in the story and will show the crisis, rising crisis and climax of the story. The sequences of events may include: -A description of events as they occur: First..., Next..., Later,.. After... -Sequences of events particular to each character: While..., As..., Meanwhile..., When..., one day.
Resolut ion	It shows the situation in which the problems have been resolved: fail or succeed, and describes the ending relating to the main characters, e.g. what they look like, sad or happy?

### Language Features

There are some language features in Narrative text, they are:

- 1) Certain nouns, pronouns, animals, and certain things in the

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<sup>31</sup> Beverly Derewianka, *Exploring How Texts Work*, (Australia, Primary English Teaching Association, 1946), p. 40

<sup>32</sup> Otong Setiawan Djuharie, *Genre Dilengkapi...*p. 41.

story, such as maid, stepsisters, housework, etc.

- 2) Adjectives extending noun phrases, such as long black hair, two red apples, etc.
- 3) Time connectives and conjunctions to make events sequence, such as then, before that, soon, next, etc.
- 4) Adverbs and adverbial phrases to show location and time of events, such as here, in the mountain, happily ever after, etc.
- 5) Action verbs in past tense: stayed, climbed, jumped, etc.
- 6) Saying verbs indicating utterance such as said, told, promised, and thinking verbs identifying the thought, perception or feeling of the characters in the story, such as thought, understood, felt, seemed, etc.
- 7) The use of Past Tense<sup>33</sup>

**Table. 2**  
**Example of Narrative Text**

<b>The smartest Parrot</b>	
Orientation	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.
Events that lead to climax	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

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<sup>33</sup> Sanggam Siahaan & Kisno Shinoda, *Generic Text...* p. 74.

	<p>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 saying the word of Catano.</p> <p>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 mumble “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.</p>
Resolution	<p>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”.<sup>34</sup> (From <a href="http://www.englishdirection.com">www.englishdirection.com</a>.)</p>

There are some indicators for reading comprehension in narrative, they are:

No	Indicators of Reading Comprehension
1.	Identifying topic sentence
2.	Identifying main idea
3.	Identifying supporting sentence
4.	Identifying conclusion
5.	Identifying vocabulary

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<sup>34</sup> Gaskins, “Narrative Example” retrieved [www.englishdirection.com](http://www.englishdirection.com), accessed on Sunday, 29<sup>th</sup> April 2015.

#### d. Teaching of Narrative Text through Reciprocal Teaching Strategy

According to Harmer, the principles behind the teaching of reading are:

- 1) reading is not a passive skill,
- 2) students need to be engaged with what they are reading,
- 3) students should be encouraged to respond to the content of a reading text,
- 4) not just to the language,
- 5) prediction is a major factor in reading,
- 6) match the task to the topic and good teachers exploit reading texts to full.<sup>35</sup>

So, it means that reading is not an easy task. Teaching reading for most teacher especially narrative text is also not easy. That is why teacher should use the suitable strategy of learning. Reciprocal teaching strategy will be alternative way to make students easier in comprehension and reading narrative text

By combining Reciprocal teaching strategy and teaching reading (genres) as processes in teaching narrative text, it is hoped that students will be able to comprehension narrative text easily.

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<sup>35</sup> Jeremy Harmer, *How to Teach English*, (London: Logman, 1998), p. 70.

## B. Review of Related Findings

There are some related findings in this research; the first script of Fadhillah Tanjung, she had done research in State College for Islamic Students (STAIN) Padangsidempuan about “The Effect of SQ3R (Survey, Question, Read, Recite, and Review) Strategy to students’ Reading Comprehension at Grade XI SMAN 3 Panyabungan”.<sup>36</sup> The research design was experiment. She said that SQ3R (Survey, Question, Read, Recite, and Review) Strategy gave effect and hypothesis testing showed that both these variables have the effect and hypothesis alternative was accepted.

The second is Ade Yusrina’s script about “The Effect of Think Pair Share Technique on Reading Comprehension in Analytical Exposition Text at SMAN 2 Padangsidempuan”.<sup>37</sup> She said this technique did not only give the students an opportunity to work individually, but also work in group with other students. The result of the treatment was students’ reading comprehension in analytical exposition text increase. It means TPS was suitable to improve students’ reading comprehension, especially in analytical exposition text for eleventh grade students.

The last is Rahmad Ansori Hasibuan’s script about “The Effect of S-RUN Strategy to Students’ Reading Comprehension at Second Grade of SMP N 5

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<sup>36</sup> Fadillah Tanjung, “The Effect of SQ3R (Survey, Question, Read, Recite, and Review) Strategy to Students’ Reading Comprehension at Grade XI SMAN 3 Panyabungan in 2013 Academic year” (*Unpublished Thesis*), (Padangsidempuan: STAIN, 2013), P.50.

<sup>37</sup> Ade Yusrina, “The Effect of Think Pair Share Technique on Reading Comprehension in Analytical Exposition Text at SMAN 2 Padangsidempuan” (*Unpublished Thesis*), Padangsidempuan:STAIN, 2012.



Padangsidempuan”.<sup>38</sup> He also used experiment to research the thesis. He used S-RUN Strategy to increase reading comprehension of students. The strategy was suitable to increase it.

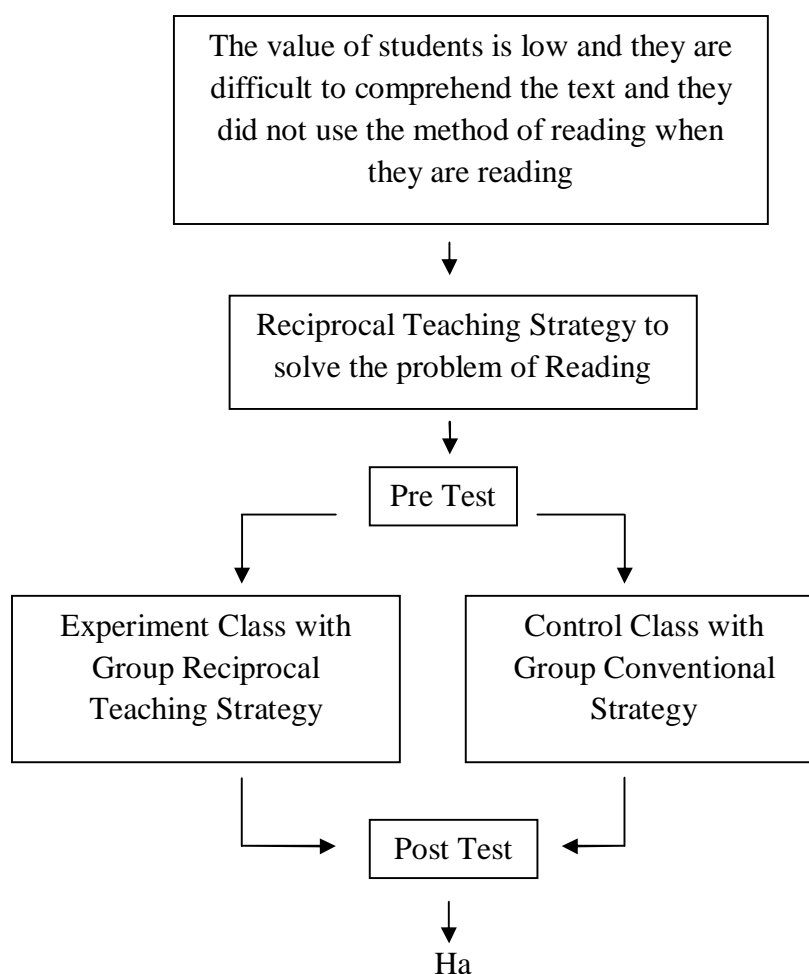
In conclusion, from the description above, the researcher can conclude that the strategy can improve the students’ ability in reading comprehension the researcher believes that the Reciprocal Strategy can improve the student’s ability in reading comprehension.

### **C. Conceptual Framework**

The successful of reading comprehension depend on many factors. One of them is how the teacher teaches reading to the students. The suitable method is very important to teach reading. Reading comprehension is mental process in which the readers try to understand the meaning in the text by interpreting what have been read in order to find the new idea that given by the writers. The reading can enrich their knowledge and take the knowledge from text to their mind directly. The researcher describes the conceptual framework as follow:

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<sup>38</sup>Rahmad Ansori Hasibuan, “The Effect of S-RUN Strategy to Students’ Reading Comprehension at Second Grade of SMPN 5 Padangsidempuan”, (*Unpublished Thesis*), Padangsidempuan: STAIN, 2013.



#### D. Hypothesis

L.R Gays, “A hypothesis is a researcher’s tentative prediction of the results of the research findings. It states the researcher’s expectations concerning the relationship between the variables in the research problem”.<sup>39</sup> The hypothesis of this research was stated that: “Using Reciprocal Teaching Strategy has significant effect on students’ reading comprehension in narrative text at grade IX of SMP N 5 Panyabungan”.

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<sup>39</sup> L.R. Gay and Peter Airasian, *Educational Research for Analysis and Application*, (America: Prentice Hall, 1992), p. 71.

## **CHAPTER III**

### **RESEARCH METHODOLOGY**

#### **A. Place and Time**

This research was taken at SMP Negeri 5 Panyabungan. It is located on Bukit Barisan Street, No. 34 Panyabungan. The process of this research was held from March 2015 up to December 2015.

#### **B. Kind and Approach of the Research**

This study is conducted by using an experimental research design. According to John W. Creswell, “Experimental research included true experiment with the random assignment of subject to treatment condition as well as quasi experiment that use nonrandomized.”<sup>1</sup> According to Suharsimi Arikunto, “Experiment is a way to find a causal relationship (casual relationship) between the two factors that intentionally inflicted by researchers with reduce or set aside other factors that could interfere”.<sup>2</sup> Next, according to Gay and Airasian, “Experimental research is the only type of research that can test hypotheses to established cause and effect”.<sup>3</sup>

In an experimental study, the researcher manipulates at least one independent variable, controls other relevant variables, and observes the effect on one or more dependent variables. The independent variable, also called the experimental

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<sup>1</sup> John W. Creswell, *Research Design*, (USA: Sage Publication, 2002), p. 14.

<sup>2</sup> Suharsimi Arikunto, *Prosedur Penelitian Suatu Pendekatan Praktik*, (Jakarta: Rineka Cipta, 1993), p. 3.

<sup>3</sup> L. R. Gay and Peter Airasian. *Educational Research*, (USA: Merril, 2000), p. 367.

variable, cause, or treatment, is that process or activity believed to make a difference in performance. The dependent variable, also called the criterion variable, effect, or posttest, is the outcome of the study, the measure of the change or difference resulting from manipulation of the independent variable. When conducted well, experimental studies produce the soundest evidence concerning hypothesized cause-effect relations.<sup>4</sup>

The experimental research was a kind of research which has the aim to know causal effect relationship between one variable and more to other variables.<sup>5</sup> The experimental research controls the selection of participant for the study and divides the select participant in to more groups having similar characteristics at the start of experiment.

It meant that to collect the data, two classes are used. They are experiment and control class. The experiment class is the class that taught with Reciprocal Teaching Strategy, while the control class is the class that taught with using dictionary. The design can figure as follow:

**Table. 3**  
**Research Design**

Class	Pre test	Treatment	Post test
Experiment class	✓	✓	✓
Control class	✓	✗	✓

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<sup>4</sup> Bungin Burhan, *Metodologi Penelitian Kuantitatif*, (Surabaya: Prenada Media, 2005), p. 147.

<sup>5</sup> Ahmad Nizar, *Metode Penelitian Pendidikan*, (Bandung: Cita pustaka Media, 2014), p. 75.

## C. Population and Sample

### 1. Population

The population is the group at interest to the research, the group to which she or he would like the result of the study to be generalization.<sup>6</sup> According to Encyclopedia of Education says:” A population is a set (or collection) of all elements possessing one or more attributes of interest.”<sup>7</sup> Next, according to Gay and Airasian, “Population is the group of interest to the researcher, the group to which she or he would like the results of the study to be generalizable”.<sup>8</sup> The last, Ary said that population is all members of well defined class of people, event, or objects.<sup>9</sup>

Based on the explanation above, the population of the research was all the students of SMP Negeri 5 Panyabungan at IX Grade. The population of research consists of 8 classes with 161 students. It can be seen from the table follow:

**Table. 4**  
**Population of Research**

No.	Classes	Number of Students
1	IX-1	22
2	IX-2	19
3	IX-3	22
4	IX-4	18
5	IX-5	19

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<sup>6</sup> L. R. Gay and Peter Airasian, *Educational Research Competencies for Analysis and Application*, (New Jersey: Prentice – Hill, Inc, 1992), p. 122.

<sup>7</sup> Suharsimi Arikunto, *Prosedur Penelitian Suatu Pendekatan Praktik*, (Jakarta: PT Rineka Cipta, 2006), p. 130.

<sup>8</sup> L. R. Gay and Peter Airasian, *Educational Research...* p. 122.

<sup>9</sup> Sukardi, *Metodologi Penelitian Pendidikan*, (Jakarta: Bumi Aksara, 2003), p. 53.

6	IX-6	19
7	IX-7	20
8	IX-8	19
Total		161

## 2. Sample

According to Arikunto says: “Sample adalah sebagian atau wakil populasi yang diteliti”.<sup>10</sup> Then, according to Gay and Airasian, “Sample comprises the individuals, items, or events selected from a larger group referred to as a population”.<sup>11</sup> In this research, withdrawal of the sample by using cluster sampling. Each element in population had equal opportunities to choose. The researcher was decided two classes total 41 students as sample. Two classes divided as experimental class (IX-1) consists of 22 people, and control class (IX-2) consists of 19 people. As the table:

**Table. 5**  
**Sample of Research**

No	Class	Total Person
1.	IX- 1	22
2.	IX- 2	19

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<sup>10</sup>Suharsimi Arikunto, *Prosedur Penelitian...* p. 131.

<sup>11</sup>L. R. Gay and Peter Airasian, *Educational Research...* p. 121.

## D. Instrument of Research

### 1. Instrument of Collecting Data

The instrument for collecting data is test. The designs of the reading test are in the form of multiple Choice, True/False, Matching, Gapped tests, and Proofreading, particularly on reading fiction.

In this case, writer chose Multiple Choice as test. Cyril says, “a multiple choice questions (MCQs) is test item usually set out in such a way that the candidate is required to select the answer from a number of given options, only one of which is correct.<sup>12</sup> The test is aimed at collecting data supporting the students’ reading comprehension in narrative text.

### 2. Indicator of Test

The test is divided in two parts. First is pre test consist of 25 number and the second is post test consist of 25 number. The test gives to both groups. To find out the scores of the students’ answer, the writer gives 4 score for each item. Thus, the maximum score of test is 100.

**Table. 6**  
**Indicator of Reading Comprehension Test (Pre Test)**

Indicator	Items	No. Items	Total Score
Identifying topic	5	2, 6, 11, 16, 26	20
Identifying main idea	5	4, 7, 14, 17, 25	20
Identifying supporting detail	5	3, 8, 12, 20, 23	20
Identifying	5	5, 10, 15, 21, 24	20

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<sup>12</sup> Cyril J. Weir, *Communication Language Teaching*, (New York: Prentice Hall, 1990), p. 43.

conclusion			
Identifying vocabulary	5	1, 9, 13, 18, 19	20
Total	25		100

**Table. 7**  
**Indicator of Reading Comprehension Test (Post Test)**

Indicator	Items	No. Items	Total Score
Identifying topic	5	1, 7, 11, 16, 21	20
Identifying main idea	5	4, 8, 13, 18, 22	20
Identifying supporting detail	5	3, 9, 12, 19, 24	20
Identifying conclusion	5	5, 10, 15, 20, 25	20
Identifying vocabulary	5	2, 6, 14, 17, 23	20
Total	25		100

## **E. Validity and Reliability Instrument**

### **1. Validity**

Validity is the most important quality of a test. It is the degree to which a test measures what it is supposed to measure, and consequently, permits appropriated interpretations of test scores.<sup>13</sup>

According to Arikunto says:

Validitas adalah suatu ukuran yang menunjukkan tingkat-tingkat kevalidan atau kesahihan sesuatu instrumen. Suatu instrumen yang valid atau sahih mempunyai validitas tinggi. Sebaliknya instrumen yang kurang valid berarti memiliki validitas rendah.<sup>14</sup>

<sup>13</sup> L. R. Gay and Peter Airasian, *Educational Research...* p. 191.

<sup>14</sup> Suharsimi Arikunto, *Prosedur Penelitian...* p. 170.



In this research, the researcher used item validity to get the validity of instrumentation. Item validity is a part of the test as a totality to measure the test by items. Then, the test consists of 60 multiple-choice tests that divided in to two groups. They were 30 for pre-test and 30 for post-test.

To know the validity of the each question will be refer to list  $r$  biserial with  $r_t$  in 5% significant: 0, 349 and 1% significant: 0, 449. So, if  $r_{account} > r_{table}$  the test is classified valid.

So, to get the validity of the test, the formula of  $r_{pointbiserial}$  can be used as follow:

$$r_{pbi} = \frac{M_p - M_t}{SD_t} \sqrt{\frac{p}{q}}$$

Where:

$r_{pbi}$  : coefficient item validity

$M_p$  : mean score of the total sore

$SD_t$  : Standard Deviation of the total score

$p$  : presentation of the right answer of the item tested  
validity.

$q$  : presentation of the wrong answer of the item  
tested validity.

From the result of the analysis for 60 instrument test, in which 30 for pre-test and 30 for post-test. Researcher concluded that for pre-test only 25 were categorized valid and 5 were categorized invalid (see appendix 8). Then, for the

post-test also consist of 25 questions were categorized valid, and 5 were categorized invalid (see appendix 11). The calculation of how to get it could be seen in the appendix 10 and appendix 13. So, researcher conducted 25 items for control class and 25 items for experiment class.

## 2. Reliability of Pre-test

Reliability was the extent to which measuring device was consistent in measuring whatever it measures. It refers to the consistency of measurement that was to how consistent scores or other evaluation results were from one measurement to another. To get the reliability of the test, the Kuder Richardson 20 Formula (KR01) was applied with r table 0.70.

Criteria of test reliability are as follows:<sup>15</sup>

$r_{11} = 0.70$	high correlation	(reliable)
$r_{11} > 0.70$	high correlation	(reliable)
$r_{11} < 0.70$	low correlation	(reliable)

The formula:

$$R_{11} = \left( \frac{n}{n-1} \right) \left( \frac{S_t^2 - \sum pq}{S_t^2} \right)$$

In Which:

R : Reliability of the Instrument

n : Number of the Test

$S_t^2$  : Variants total

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<sup>15</sup> Anas Sujono, *Pengantar Statistik Pendidikan*, (Jakarta: PT Raja Grafindo, 2005), p. 209.

$p$  : Proportion subject who is right answer

$q$  : Proportion subject who is wrong answer

## **F. Procedure of the Research**

In completing the data, the next step of this research is collecting the data. The function of data collecting was to determine the result of the research. In collecting data the researcher used some steps. They are:

### **1. Pre test**

- a. The researcher prepared the test 25 item.
- b. The researcher distributed the paper of the test to students of experimental class and control class.
- c. The researcher explained what students to do.
- d. Giving time.
- e. The students answered the question.
- f. Collected their paper test to researcher.
- g. The researcher checked the answer of students and found he mean score of control and experimental class.

### **2. Treatment**

After pre test administrate, a treatment was given to students. Control group is through Conventional Strategy, and experimental group is through by applying Reciprocal Teaching Strategy.

### 3. Post test

After giving treatment, the researcher conducted a post-test which the different test with the pre-test, and has not been conducted in the previous of the research. This post-test was the final test in the research, especially measuring the treatment, whether was an effect or not. After conducting the post-test, the researcher analyzed the data. And the researcher found out the effect of using Reciprocal Teaching strategy in the experimental class. The researcher has some procedure. There were:

- a. The researcher prepared the test 25 item.
- b. The researcher distributed the paper of the test to students of experimental class and control class.
- c. The researcher explained what students to do.
- d. Giving time.
- e. The students answered the question.
- f. Collected their paper test to researcher.
- g. The researcher checked the answer of students and found the mean score of control and experimental class.

## G. Technique of Data Analysis

### 1. Qualification Test of Data Analysis Pre-test and Post-test

#### a. Normality test

To calculate normality test was used by Liliefors formula, as follow:<sup>16</sup>

- 1) Calculating average and standard deviation by the formula:

$$\bar{x} = \frac{\sum F_i X_i}{F_i}$$

- 2) Perception  $x_1, x_2, \dots, x_n$  made permanent number  $z_i, z_1, z_2, \dots, z_n$  by using

$$\text{formula: } Z_i = \frac{x_i - \bar{x}}{s}$$

- 3) To every this permanent number and by using enlist of permanent normal distribution, and then calculating the opportunity.

$$F(Z_i) = P(Z < Z_i)$$

- 4) Counting the difference  $F(Z_i) - S(Z_i)$ , and then determine its absolute price.

- 5) Taking the biggest price among absolute price of the difference and mentioning the price by  $Lo$ .

- 6) If  $Lo < L$  obtained from the critical value test, the Liliefors with the real level  $\alpha = 0,05$ , hence the distribution is normal.

Based on the result of calculation, the score of experimental class

$Lo = 0.033 < Lt = 0.173$  with  $n = 22$  and control class  $Lo = 0.032 < Lt = 0.195$

with  $n = 19$ , real level  $\alpha$  was 0.05. Cause  $Lo < Lt$  in the both class. So,  $H_0$

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<sup>16</sup>Darwyan Syah, at. al. *Pengantar Statistik Pendidikan*, (Jakarta: Gaung Persada Press) p. 69.

is accepted, it means that experiment class and control class were distributed normal. Researcher calculation, it can be seen on the appendix 25 and table liliefors on the appendix 32.

b. The homogeneity of test

To test whether variants of both homogenous samples, variants equality test, that is:

$$F = \frac{\text{the biggest variants}}{\text{the smallest variant}}$$

Here , after comparing to the  $F_{\text{table}}$ , its criterion is :

If  $F_{\text{calculating}} < F_{\text{table}}$ , then both samples are homogeneous.

Based on the result of calculation, the coefficient of  $F_{\text{count}} =$  is compared with  $F_{\text{table}}$ . Where  $F_{\text{table}}$  was determined at real  $\alpha = 0.05$ , and the same numerator  $dk = N - 1 = 22 - 1 = 21$  and denominator  $dk N - 1 = 19 - 1 = 18$  So, by using the list of critical value at  $F$  distribution is got  $F_{0,05(21,18)} = 2.11$ . It shows that score of experimental class  $F_{\text{count}} (1.51) < F_{\text{table}} (2.11)$  and score of control class  $F_{\text{count}} (1.62) < F_{\text{table}} (2.11)$ . So, it can be concluded that the variant from the data of the effect of reciprocal teaching strategy on students' reading comprehension in narrative text at grade IX of SMP N 5 Panyabungan by experimental and control class was homogeny.

## 2. Hypothesis Test

The technique in analyzing the data was used by t-test, because was aimed to examine the difference of two variables. Such examination performed both on pre-test and pos-test score from the experimental class and control class. T-test formula applied is as follows:<sup>17</sup>

$$Tt = \frac{M_X - M_Y}{\sqrt{\left(\frac{\Sigma X^2 + \Sigma Y^2}{n_X + n_Y - 2}\right)\left(\frac{1}{n_X} + \frac{1}{n_Y}\right)}}$$

Where :

t : Test

M<sub>X</sub> : The mean of experimental group

M<sub>Y</sub> : The mean of control group

X : Deviation score X<sub>2</sub> and X<sub>1</sub> of experimental group

Y : Deviation score Y<sub>2</sub> and Y<sub>1</sub> of control group

n<sub>X</sub> : The total number of experimental group

n<sub>Y</sub> : The total number of control group

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<sup>17</sup>Suharsimi Arikunto, *Prosedur Penelitian Suatu Pendekatan Praktek Edisi Revisi II*, (Jakarta: Rineka Cipta, 1993), p. 269.

## CHAPTER IV

### THE RESULT OF THE RESEARCH

For analyzing the data, researcher collected the data and gave the test about reading comprehension to the sample. The sample of this research was class IX-1 for experimental class and class IX-2 for control class. The test was divided into two aspect, they were pre-test and post-test. Pre-test was done before conducted the treatment and post- test was done after conducted the treatment. Researcher applied quantitative analysis by used the formulation of *t-test*. It was done to know the significant effect of using reciprocal teaching strategy on students' reading comprehension in narrative text. Then, researcher would describe the result based on the data that had been researched as follow.

#### A. Description of Data Before and After Using Reciprocal Teaching Strategy in Experimental Class

##### 1. The Score of Pre-test Experimental Class

**Tabel. 8**  
**The score of experimental class in pre-test**

Total	5884
Highest score	72
Lowest score	40
Mean	49
Standart deviation	9.56
Varians	91.40
Median	49
Modus	47.15
Range	32
Interval	6

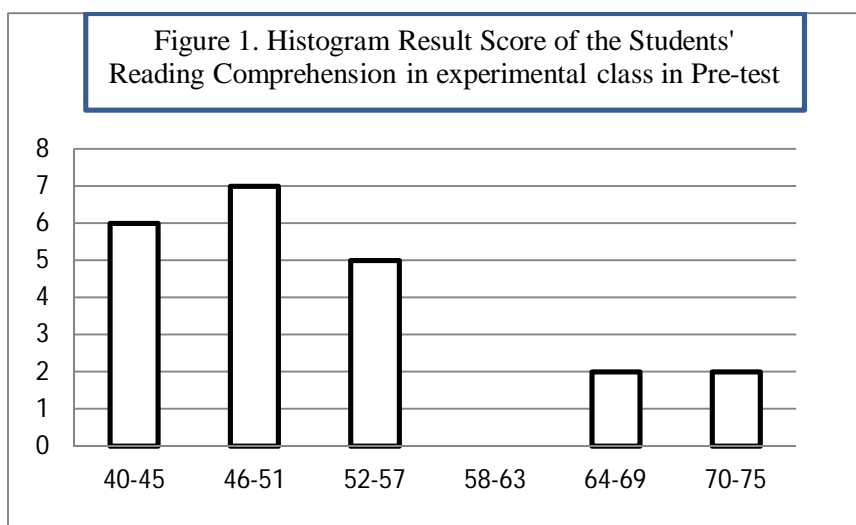


Based on the table above the total score of experiment class in pre-test was 5884, mean was 49, standart deviation was 9.56, varians was 91.40, median was 49, range was 32, modus was 47.15, interval was 6. The researcher got the highest score was 72 and the lowest score was 40 . Next, the calculation of how to get it could be seen in the appendix 20. Then, the computed of the frequency distribution of the students' score of experiment class could be applied into table frequency distribution as follow:

**Table. 9**  
**The Frequency Distribution of Students' Score**

No	Interval	Frequency	Percentages
1	40 – 45	6	27.27%
2	46 – 51	7	31.81%
3	52 – 57	5	22.72%
4	58 – 63	0	0%
5	64 – 69	2	9%
6	70 – 75	2	9%
<i>i</i> = 5		22	100%

Based on the table above, it can be drawn at histogram as follow:



## 2. The Score Post-test of Experimental Class

**Tabel. 10**  
**The score of eksperimental class in post-test**

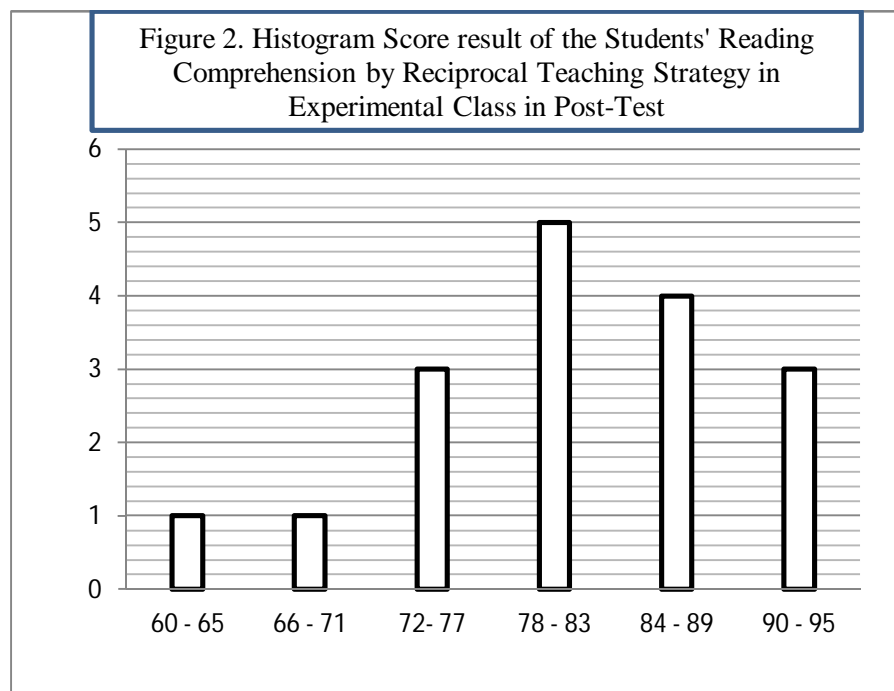
Total	1636
Highest score	92
Lowest score	60
Mean	73.09
Median	73.64
Mode	74.83
Range	32
Interval	6
Standart deviation	67.32
Varians	8.20

Based on the table above the total score of experiment class in post-test was 1636, mean was 73.09, median was 73.64, mode was 74.83, range was 32, interval was 6, standart deviation was 67.32, varians was 8.20. The researcher got the highest score was 92 and the lowest score was 60 . Next, the calculation of how to get it could be seen in the appendix 21. Then, the computed of the frequency distribution of the students' score of experiment class could be applied into table frequency distribution as follow:

**Table. 11**  
**The Frequency Distribution of Students' Score**

No	Interval Class	F	Percentages
1	60 – 65	3	13.63%
2	66 – 71	3	13.63%
3	72 – 77	8	36.36%
4	78 – 83	4	18.18%
5	84 – 89	3	13.63%
6	90 – 95	1	4.54%
<i>i</i> = 6		22	100%

Based on the table above, it can be drawn at histogram as follow:



## B. Description of Data Before and After Using Reciprocal Teaching Strategy in Control Class

### 1. The Score of Pre Test Control Class

**Tabel. 12**  
**The Score of Control Class in Pre Test**

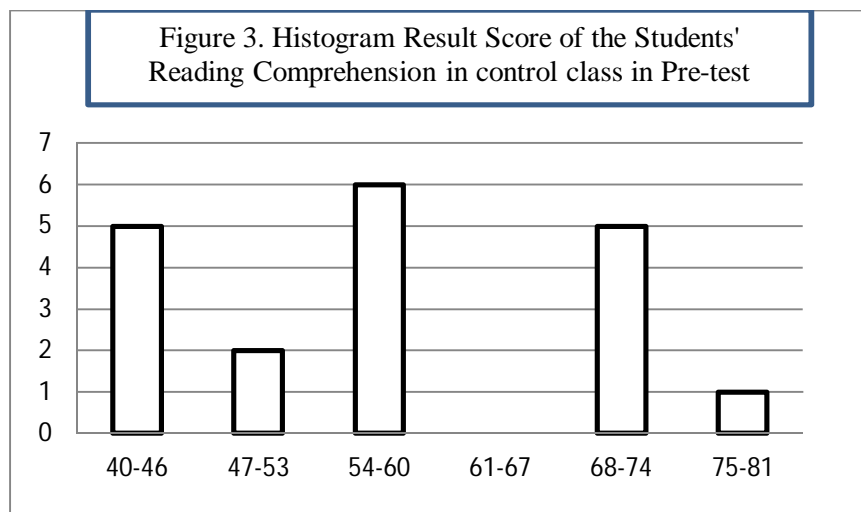
Total	856
Highest score	76
Lowest score	40
Mean	54.36
Median	54.84
Modus	56.3
Range	36
Interval	7
Standart deviation	11.77
Varians	138.69

Based on the table above the total score of control class in pre-test was 856, mean was 54.36, median was 54.84, mode was 56.3, range was 36, interval was 7, standart deviation was 11.77, varians was 138.69. The researcher got the highest score was 65, and the lowest score was 35.(See appendix 21). Then, the computed of the frequency distribution of the students' score of experiment class could be applied into table frequency distribution as follow:

**Table. 13**  
**The Frequency Distribution of Students' Score**

No	Interval Class	F	Percentages
1	40 – 46	5	26.31%.
2	47 – 53	2	10.52%
3	54 – 60	6	31.57%
4	61 – 67	0	0%
5	68 – 74	5	26.31%
6	75 – 81	1	5.26%
<i>i</i> = 7		19	100%

Based on the table above, it can be drawn at histogram as follow:



## 2. The Score of Control Class in Post-Test

**Tabel. 14**  
**The Score of Control Class in Post-Test**

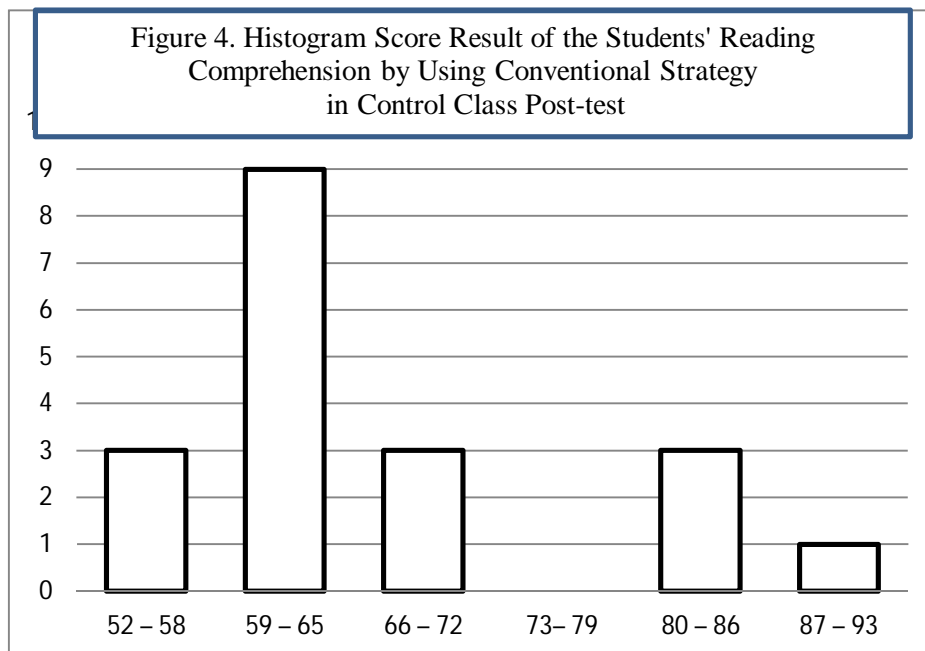
Total	1246
Highest score	88
Lowest score	52
Mean	63.78
Median	57.33
Mode	62
Range	36
Interval	7
Standart deviation	10.44
Varians	109.17

Based on the table above the total score of control class in post-test was 1246, mean was 63.78, standart deviation was 10.44, varians was 109.17, median was 57.33, mode was 62, range was 36, interval was 7. The researcher got the highest score was 88 and the lowest 52 score was. Next, the calculation of how to get it could be seen in the appendix 23. Then, the computed of the frequency distribution of the students' score of experiment class could be applied into table frequency distribution as follow:

**Table. 15**  
**The Frequency Distribution of Students' Score**

No	Interval Class	F	Percentages
1	52 – 58	3	15.78%
2	59 – 65	9	47.36%
3	66 – 72	3	15.78%
4	73 – 79	0	0%
5	80 – 86	3	15.78%
6	87 – 93	1	5.26%
<i>i</i> = 7		19	100%

Based on the table above, it can be drawn at histogram as follow:



### C. Technique of Data Analysis

#### 1. Qualification Test of Data Analysis Pre-test and Post-test

##### a. Normality of experimental class and control class in Pre-test

**Table. 16**  
**Normality and homogeneity in pre-test**

Class	Normality Test		Homogeneity Test	
	$t_{\text{count}}$	$t_{\text{table}}$	$t_{\text{count}}$	$t_{\text{table}}$
Experiment Class	0.033	0.173	1.51 < 2.10	
Control Class	0.032	0.195		

Based on the table above researcher calculation, the score of experiment class  $L_o=0.033 < L_t=0.173$  with  $n = 22$  and control class  $L_o=0.032 < L_t=0.195$  with  $n = 19$ , and real level  $\alpha 0.05$ . Cause  $L_o < L_t$  in the both

class. So,  $H_0$  is accepted, it means that experiment class and control class were distributed normal. Researcher calculation, it can be seen on the appendix 25 and appendix 26.

b. Homogeneity of experimental class and control class in Pre-test

Then, the coefficient of  $F_{\text{count}}$  is compared with F table. Where F table was determined at real  $\alpha = 0.05$ , and the same numerator  $dk = N - 1 = 22 - 1 = 21$  and denominator  $dk = N - 1 = 19 - 1 = 18$ . So, by using the list of critical value at F distribution is got  $F_{0.05(21,18)} = 2.10$ . It shows that  $F_{\text{count}} (1.51) < F_{\text{table}} (2.10)$ . So, it can be concluded that the variant from the data of the effect of using reciprocal teaching strategy on students' reading comprehension in narrative text at grade IX of SMP N 5 Panyabungan by experimental and control class was homogeneity.

c. Normality of experimental class and control class in Post-test

**Tabel. 17**  
**Normality and homogeneity in post-test**

Class	Normality Test		Homogeneity Test	
	$t_{\text{count}}$	$t_{\text{table}}$	$t_{\text{count}}$	$t_{\text{table}}$
Experiment Class	-0.214	0.173	1.62 < 2.10	
Control Class	0.03	0.195		

Based on the table above researcher calculation, the score of experimental class  $L_o = -0.214 < L_t = 0.173$  with  $n = 22$  and control class  $L_o = 0.03 < L_t = 0.195$  with  $n = 19$ , real level  $\alpha$  was 0.05. Cause  $L_o < L_t$  in

the both class. So,  $H_0$  is accepted, it means that experiment class and control class were distributed normal. Researcher calculation, it can be seen on the appendix 27 and appendix 28.

d. Homogeneity of experimental class and control class in Post-test

Then, the coefficient of  $F_{\text{count}} =$  is compared with F table. Where F table was determined at real  $\alpha = 0.05$ , and the same numerator  $dk = N - 1 = 22 - 1 = 21$  and denominator  $dk = N - 1 = 19 - 1 = 18$  So, by using the list of critical value at F distribution is got  $F_{0,05(21,18)} = 2.10$ . It shows that  $F_{\text{count}} (1.62) < F_{\text{table}} (2.10)$ . So, it can be concluded that the variant from the data of the effect of using reciprocal teaching strategy on students' reading comprehension in narrative text at grade IX of SMP N 5 Panyabungan by experimental and control class was homogeny.

## 2. Hypothesis Test

The hypothesis of research "Using Reciprocal Teaching Strategy has significant effect on students' reading comprehension in narrative text at grade IX of SMP N 5 Panyabungan". Based on the data collected, the data will be analyzed to prove hypothesis by using formula of T-test, see appendix 24.

Hypothesis of research was using Reciprocal Teaching Strategy had significant effect on students' reading comprehension in narrative text at grade IX of SMP N 5 Panyabungan. The researcher took the decision of



criteria in doing this research. Hypothesis was accepted since  $t_{\text{observed}} > t_{\text{table}}$  of significant and the degree of freedom  $(df) = (n_1 + n_2 - 2) = 22 + 19 - 2 = 39$ . The result of the researcher calculation, it can be seen on the table as follow:

**Table. 18**  
**Result of T-test**

Score of T-test	
$t_{\text{count}}$	$t_{\text{table}}$
2.75	1.68

From the calculation of t-test, it was found that  $t_{\text{observed}}$  is higher than  $t_{\text{table}}$  ( $2.75 > 1.68$ ). So that, from the calculation above, it was concluded that the result of experimental was significant, next reciprocal teaching strategy had significant effect on students' reading comprehension in narrative text at grade IX of SMP N 5 Panyabungan. So, the hypothesis was accepted.

#### **D. Discussion**

Based on the related findings, the researcher discussed the result of this research and compared with the related findings. First, the research by Fadhillah Tanjung, she had done research in State College for Islamic Students (STAIN) Padangsidempuan about "The Effect of SQ3R (Survey, Question, Read, Recite, and Review) Strategy to students' Reading Comprehension at Grade XI SMAN 3

Panyabungan”.<sup>1</sup> The research design was experiment. SQ3R include the following five steps such as survey, question, read, recite and review by theory Robinson 1946. SQ3R is a comprehension strategy that helps students thinks about the text they are reading while they’re reading. Then, she said that SQ3R (Survey, Question, Read, Recite, and Review) Strategy gave effect and hypothesis testing showed that both these variables have the effect and hypothesis alternative was accepted.

The second is Ade Yusrina’s script about “The Effect of Think Pair Share Technique on Reading Comprehension in Analytical Exposition Text at SMAN 2 Padangsidempuan”.<sup>2</sup> Think-Pair-Share (TPS) technique is developed by Frank Lyman 1985. Think-Pair-Share is a cooperative learning technique that includes three components such as time for thinking, time for sharing with partner, and time for each pair to share back to a larger group. TPS was suitable to improve students’ reading comprehension, especially in analytical exposition text for eleventh grade students. The last is Rahmad Ansori Hasibuan’s script about “The Effect of S-RUN Strategy to Students’ Reading Comprehension at Second Grade of SMP N 5 Padangsidempuan”.<sup>3</sup> S-RUN strategy is created to help students

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<sup>1</sup> Fadillah Tanjung, “The Effect of SQ3R (Survey, Question, Read, Recite, and Review) Strategy to Students’ Reading Comprehension at Grade XI SMAN 3 Panyabungan in 2013 Academic year” (*Unpublished Thesis*), (Padangsidempuan: STAIN, 2013), P.50.

<sup>2</sup> Ade Yusrina, “The Effect of Think Pair Share Technique on Reading Comprehension in Analytical Exposition Text at SMAN 2 Padangsidempuan” (*Unpublished Thesis*), Padangsidempuan:STAIN, 2012.

<sup>3</sup>Rahmad Ansori Hasibuan, “The Effect of S-RUN Strategy to Students’ Reading Comprehension at Second Grade of SMPN 5 Padangsidempuan”, (*Unpublished Thesis*), Padangsidempuan: STAIN, 2013.

develop study reading strategies. He used S-RUN Strategy to increase reading comprehension of students. The strategy was suitable to increase it.

Based on the analysis above, the theory which has been discussed by the researcher was prove. Annemarie Sullivan Palincsar said “Reciprocal teaching is best represented as a dialog between teachers and student in which participants take turns assuming the role of teacher”.<sup>4</sup> The students can read comprehension through steps in reciprocal teaching strategy such as students can predict the text, read, clarifying, give question about the reading, and summarizing. The theory is supported by Brown. He stated “the strategies embedded in reciprocal teaching represent those that successful learners engage in while interacting with text”.<sup>5</sup> It can be concluded that reciprocal teaching strategy has the effect on students’ reading comprehension in narrative text.

#### **E. Threats of the Research**

The researcher found the threat of this research as follows:

1. The students needed more time for answering the test.
2. The students are noisy and lack of serious while teaching and learning process. So, it can disturb the concentration of the others.

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<sup>4</sup>Uttara Manohar, “Reciprocal Teaching” retrieved <http://www.buzzle.com/articles/reciprocal-teaching-strategies.html> accessed on Monday, 30<sup>th</sup> April 2015.

<sup>5</sup> A. L. Brown, *Metacognitive Development and Reading*. In R.S. Spiro, B.B. Bruce & W.L. Brewer (Eds), *Theoretical Issues in Reading Comprehension*, (Hillsdace, Ng: Erlboum, 1980), p. 67.

3. There are some students that lack of serious to answer the test in pre-test and post-test. It can be the threat of the research. So, the researcher can not reach the validity of trustworthiness data.

## **CHAPTER V**

### **CONCLUSION AND SUGGESTION**

#### **A. Conclusion**

Based on the result of the research and calculations of the data, the researcher got the conclusion that using reciprocal teaching strategy had the effect on students' reading comprehension in narrative text at grade IX of SMP N 5 Panyabungan. It could be seen from the mean score of experimental and control class ( $73.09 > 63.78$ ) and the calculation of  $t_{\text{account}} > t_{\text{table}}$  ( $2.75 > 1.68$ ). Hypothesis was accepted. So, reciprocal teaching strategy had significant effect on students' reading comprehension in narrative text at SMP Negeri 5 Panyabungan.

#### **B. Suggestion**

The result of this study showed that the use of herringbone technique has the effect on students' reading comprehension. Therefore, the following suggestions are offered:

1. The researcher on this occasion hoped that other researchers would conduct a research related to the topic of this study, further, especially to find out other strategy on students' reading comprehension in narrative text.
2. The Principal of SMP Negeri 5 Panyabungan, to motivate the teacher, especially English teachers to teach as well as possible by maximizing the

using of reciprocal in teaching, because reciprocal teaching strategy can be used as an alternative way of teaching in teaching reading.

3. For the teacher, it is very wise to use reciprocal teaching strategy in reading because this strategy can stimulate students to have motivation especially in reading.
4. Other researcher, the findings of this research were subject matters which can be developed largely and deeply by adding other variables or enlarge the samples.

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## **CURRICULUM VITAE**



### **A. Identity**

Name : NUR INAYAH HASIBUAN

Nim : 11 340 0023

Place and Birthday : Gunung Tua, 22<sup>th</sup> August 1993

Sex : Female

Religion : Moslem

Address : Gunung Tua Tonga, Kec. Panyabungan,  
Mandailing Natal

### **B. Parent**

1. Father's name : Alm. Gong Matua Hasibuan
2. Mother's name : Siti Holidah

### **C. Educational Background**

1. Graduated from Elementary School SD Negeri 142599 Panyabungan 2005.
2. Graduated from Junior High School SMP Negeri 5 Panyabungan 2008.
3. Graduated from Senior High School SMA Negeri 1 Panyabungan 2011.
4. Be University student in IAIN Padangsidimpuan 2015.

## **APPENDIX 1**

### **LESSON PLAN (EXPERIMENTAL CLASS)**

**School** : SMP NEGERI 5 PANYABUNGAN

**Subject** : English Language

**Standard of Content** : Understanding Narrative Text

**Class** : IX

**Semester** : I (First)

**Time** : 10 X 40 Minutes

**Standard of Competence** : **Reading**

**Objective** :

- a. To make students able to identify the topic.
- b. To make students able to identify the main idea.
- c. To make students able to identify the supporting sentence.
- d. To make students able to identify the conclusion.
- e. To make students able to identify the vocabulary.

**Indicators** :

- a. Student able to identify the topic.
- b. Student able to identify the main idea.

- c. Student able to identify the supporting sentence.
- d. Student able to identify the conclusion.
- e. Student able to identify the vocabulary.

**Learning Material :**

**Narrative Text**

**THE STORY OF TOBA LAKE**

Once upon a time, there was a man who was living in north Sumatra. He lived in a simple hut in a farming field. He did some gardening and fishing for his daily life.

One day, while the man was do fishing, he caught a big golden fish in his trap. It was the biggest catch which he ever had in his life. Surprisingly, it turned into a beautiful princess. He felt in love with her and proposed her to be his wife. She said; "Yes, but you have to promise not to tell anyone about the secret that I was once a fish, otherwise there will be a huge disaster". The man made the deal and they got married, lived happily and had a daughter.

Few years later, his daughter would help bringing lunch to her father out in the fields. One day, his daughter was so hungry and she ate his father's lunch. Unfortunately, he found out and got furious, and shouted; "You damned daughter of a fish". The daughter ran home and asked her mother. The mother started crying, felt sad that her husband had broken his promise.

Then, she told her daughter to run up the hills because a huge disaster was about to come. When her daughter left, she prayed. Soon there was a big earthquake followed by non-stop pouring rain. The whole area got flooded and became Toba Lake. She turned into a fish again and the man became the island of Samosir.

## **Learning Experience:** Reciprocal Teaching Strategy

### **Procedures :**

- 1) **Predicting:** The leader asks the students to read the topic sentence or subheading and then predict what the rest of the paragraph will be about. Since the topic sentence tells what will follow, you can teach the students how to skim read at this point.
- 2) **Reading:** This card invites the students to read up to a certain point. They can read silently, to the group, to a partner or in unison, to add variety.
- 3) **Clarifying:** This card gives the readers the opportunity to have any unfamiliar words, locations or pronunciations 'made clear'. At first the students may not volunteer that they don't know something. So you might pick out a word or a place and ask the group to clarify it. If all members don't offer to answer the question, and then talk about how the purpose of reading is to gain meaning and if we are not gaining meaning, then we are simply 'barking at the print'.
- 4) **Questioning:** Ask the students to generate the questions at this point. The questions can be answered orally or, depending on your purpose, you might like the group to record some of their questions and answers.

- 5) Summarizing: This is the perfect moment to teach key points, note-taking and to some extent paraphrasing.
- 6) Swap leaders: Passes leadership to another student.

### **Evaluation**

<b>Indicator</b>	<b>Technique</b>	<b>Form</b>	<b>Instrument</b>
Identifying information from the narrative text	Literal Test	Multiple Choice	Choose the correct answer by crossing a, b, c, or d

## **APPENDIX 2**

### **LESSON PLAN (CONTROL CLASS)**

**School** : SMP NEGERI 5 PANYABUNGAN

**Subject** : English Language  
**Standard of Content** : Understanding Narrative Text  
**Class** : IX  
**Semester** : I (First)  
**Time** : 10 X 40 Minutes  
**Standard of Competence** : **Reading**

**Objective** :

- a. To make students able to identify the topic.
- b. To make students able to identify the main idea.
- c. To make students able to identify the supporting sentence.
- d. To make students able to identify the conclusion.
- e. To make students able to identify the vocabulary.

**Indicators** :

- a. Student able to identify the topic.
- b. Student able to identify the main idea.
- c. Student able to identify the supporting sentence.
- d. Student able to identify the conclusion.
- e. Student able to identify the vocabulary.

**Learning Material** :  
Narrative Text

## **The Story of the Smart Parrot**

A man in Puerto Rico had a wonderful parrot. There was no another parrot like it.

It was very, very smart. This parrot would say any word-except one. He would not say the name of the town where he was born. The name of the town was Catano.

The man tried to teach the parrot to say Catano. But the bird would not say the word. At first the man was very nice, but then he got angry. “You are a stupid bird! Why can’t you say the word? Say Catano, or I will kill you!” but the parrot would not say it. Then the man got so angry that he shouted over and over, “Say Catano, or I’ll kill you!” but the bird would not talk.

One day after trying for many hours to make the bird say Catano, the man got very angry. He picked up the bird and threw him into the chicken house. “You are more stupid than the chickens. Soon I will eat them, and I will eat you, too.”

In the chicken house there are four old chickens. They were for Sunday’s dinner. The man put the parrot in the chicken house and left.

The next day the man came back to the chicken house. He opened the door and stopped. He was very surprised at what he saw!

He saw three dead chickens on the floor. The parrot was screaming at the fourth chicken, “Say Catano, or I’ll kill you!”

**Learning Experience:** Conventional Strategy

**Procedures :**



- 1) Every student is given a passage consists of some paragraph.
- 2) Teacher assigns the students to read the paragraph.
- 3) Student search the topic, main idea, supporting, concluding, and vocabulary.
- 4) Teacher asks any of students to present and explain the topic, main idea, supporting, concluding, and vocabulary.
- 5) To measure students' comprehension toward the paragraph, at the end of the session, teacher gives a quiz on material given.

### **Evaluation**

<b>Indicator</b>	<b>Technique</b>	<b>Form</b>	<b>Instrument</b>
Identifying information from the narrative text	Literal Test	Multiple Choice	Choose the correct answer by crossing a, b, c, or d

Padangsidimpuan, September 2015

**RESEARCHER**

**NUR INAYAH HASIBUAN**

**NIM: 11 340 0023**

### **APPENDIX 3**

#### **INSRUMENT TEST (Pre Test before Testing Validity)**

**Information:** This test is just to know your ability in reading comprehension and there is no affected in your appraisal in final examination of this school.

Name :

Reg. No :

Class :

**Instruction** : Read narrative texts carefully and answer the question below. Each one is followed by several questions about it. The questions are 1-25 items and you have 60 minutes to answer all of the questions. So, you choose the one best answer, A, B, C, D, to each question. Give mark (X) on the best your answer.

#### **Text I**

A man in Puerto Rico had a wonderful parrot. There was no another parrot like it.

It was very, very smart. This parrot would say any word-except one. He would not say the name of the town where he was born. The name of the town was Catano.

The man tried to teach the parrot to say Catano. But the bird would not say the word. At first the man was very nice, but then he got angry. “You are a stupid bird! Why can’t you say the word? Say Catano, or I will kill you!” but the parrot would not say it. Then the man got so angry that he shouted over and over, “Say Catano, or I’ll kill you!” but the bird would not talk.

One day after trying for many hours to make the bird say Catano, the man got very angry. He picked up the bird and threw him into the chicken house. “You are more stupid than the chickens. Soon I will eat them, and I will eat you, too.”

In the chicken house there are four old chickens. They were for Sunday’s dinner. The man put the parrot in the chicken house and left.

The next day the man came back to the chicken house. He opened the door and stopped. He was very surprised at what he saw!

He saw three dead chickens on the floor. The parrot was screaming at the fourth chicken, “Say Catano, or I’ll kill you!”

1. Where does the story take place?
  - a. London
  - b. Puerto Rico
  - c. Jakarta
  - d. Buenos Aires
2. What is the word that the parrot cannot say?

- a. Catano
  - b. Tacano
  - c. Canato
  - d. Nacato
3. What is the story about?
- a. A parrot and a cat
  - b. A parrot and a chicken
  - c. A parrot and the owner
  - d. A parrot, the owner, and chickens
4. What is the main idea from the text above?
- a. The story of a man and a wonderful parrot.
  - b. A parrot, the owner, and chickens.
  - c. A man has a parrot and the chickens.
  - d. A stupid parrot.
5. Look at the paragraph!

The man tried to teach the parrot to say Catano.<sup>1</sup> But the bird would not say the word. At first the man was very nice, but then he got angry.<sup>2</sup> “You are a stupid bird! Why can’t you say the word? Say Catano, or I will kill you!” but the parrot would not say it.<sup>3</sup> Then the man got so angry that he shouted over and over, “Say Catano, or I’ll kill you!” but the bird would not talk.<sup>4</sup>

What is the number of supporting sentence from the paragraph?

- a. 2, 3 and 4
- b. 1 and 4
- c. 3 and 4
- d. all of number

6. The parrot was screaming at the fourth chicken, “Say Catano, or I’ll kill you!”
- The antonym of *screaming* from the sentence above is....
- a. crying
  - b. sad
  - c. enjoying
  - d. silently
7. What is the conclusion of the text?
- a. The last, the parrot can says “Catano, or I’ll kill you” like the man was taught.
  - b. The parrot can’t say catano.
  - c. The parrot is stupid bird.
  - d. The parrot kills the chickens.

### Text 2

Bawang Putih lived with her step mother and her step sister Bawang Merah. Bawang Putih's mother died when she was a baby. Her father remarried another woman and later her step sister was born. Unfortunately, not long after that her father died. Since then, Bawang Putih's life was sad. Her step mother and her step sister treated Bawang Putih badly and always asked her to do all the household chores.

One morning, Bawang Putih was washing some clothes in a river. Accidentally, her mother's clothes were washed away by the river. She was really worried so she walked along the river side to find the clothes. Finally she met an old woman. She said that she kept the clothes and would give them back to Bawang Putih if she helped the old woman do the household chores. Bawang Putih helped her happily. After everything was finished, the old

woman returned the clothes. She also gave Bawang Putih a gift. The old woman had two pumpkins, one pumpkin was small and the other one was big. Bawang Putih had to choose one.

Bawang Putih was not a greedy girl. So she took the small one. After thanking the old woman, Bawang Putih then went home. When she arrived home, her step mother and Bawang Merah were angry. They had been waiting for her all day long. Bawang Putih then told about the clothes, the old woman, and the pumpkin. Her mother was really angry so she grabbed the pumpkin and smashed it to the floor. Suddenly they all were surprised. Inside the pumpkin they found jewelries. "Bawang Merah, hurry up. Go to the river and throw my clothes into the water. After that, find the old woman. Remember, you have to take the big pumpkin," the step mother asked Bawang Merah to do exactly the same as Bawang Putih's experience. Bawang Merah immediately went to the river. She threw the clothes and pretended to search them. Not long after that, she met the old woman. Again she asked Bawang Merah to do household chores. She refused and asked the old woman to give her a big pumpkin. The old woman then gave her the big one. Bawang Merah was so happy. She ran very fast. When she arrived home, her mother was impatient. She directly smashed the pumpkin to the floor. They were screaming. There were a lot of snakes inside the pumpkin! They were really scared. They were afraid the snakes would bite them. "Mom, I think God just punished us. We had done bad things to Bawang Putih. And God didn't like that. We have to apologize to Bawang Putih," said Bawang Merah.

Finally, both of them realized their mistakes. They apologized and Bawang Putih forgave them. Now the family is not poor anymore. Bawang Putih decided to sell all the jewelries and used the money for their daily lives.

8. What is the topic from the text above?

- a. Story of Bawang Merah and Bawang Putih
  - b. Bawang Putih, stepmother and stepsister
  - c. The life story of Bawang Putih
  - d. The kind of Bawang Putih
9. What is the main idea from the text?
- a. Stepmother and stepsister are bad
  - b. The patience of Bawang Putih to doing stepmother and stepsister
  - c. The kind of Bawang Putih
  - d. Unforgettable experience of Bawang Putih and Bawang Merah

10. Look at the paragraph!

Bawang Putih lived with her step mother and her step sister Bawang Merah.<sup>1</sup> Bawang Putih's mother died when she was a baby.<sup>2</sup> Her father remarried another woman and later her step sister was born.<sup>3</sup> Unfortunately, not long after that her father died. Since then, Bawang Putih's life was sad.<sup>4</sup> Her step mother and her step sister treated Bawang Putih badly and always asked her to do all the household chores.<sup>5</sup>

From the paragraph above, what are the supporting sentences?

- a. 1, 2 and 3
  - b. 2, 3, 4, and 5
  - c. 1 and 5
  - d. 1, 4, and 5
11. Bawang Putih was not a greedy girl.
- The antonym of greedy girl is....
- a. friendly girl
  - b. covetous girl
  - c. bad girl

d. generous girl

12. Finally, what did happen to Bawang Putih?

- a. Bawang Putih forgave their stepmother and stepsister and they were happily.
- b. Stepmother and stepsister are unlucky.
- c. Life of Bawang Putih is bad.
- d. Bawang Putih to be a greedy girl.

### Text 3

Once upon a time, there was a man who was living in north Sumatra. He lived in a simple hut in a farming field. He did some gardening and fishing for his daily life.

One day, while the man was do fishing, he caught a big golden fish in his trap. It was the biggest catch which he ever had in his life. Surprisingly, it turned into a beautiful princess. He felt in love with her and proposed her to be his wife. She said; "Yes, but you have to promise not to tell anyone about the secret that I was once a fish, otherwise there will be a huge disaster". The man made the deal and they got married, lived happily and had a daughter.

Few years later, his daughter would help bringing lunch to her father out in the fields. One day, his daughter was so hungry and she ate his father's lunch. Unfortunately, he found out and got furious, and shouted; "You damned daughter of a fish". The daughter ran home and asked her mother. The mother started crying, felt sad that her husband had broken his promise.

Then, she told her daughter to run up the hills because a huge disaster was about to come. When her daughter left, she prayed. Soon there was a big earthquake followed by non-stop pouring rain. The whole area got flooded and



became Toba Lake. She turned into a fish again and the man became the island of Samosir.

13. The topic of above text is....

- a. The island of Samosir
- b. The story of Toba Lake
- c. Life story of Samosir
- d. A man was living in North Sumatra

14. Look at the paragraph!

One day, while the man was do fishing, he caught a big golden fish in his trap.<sup>1</sup> It was the biggest catch which he ever had in his life.<sup>2</sup> Surprisingly, it turned into a beautiful princess.<sup>3</sup> He felt in love with her and proposed her to be his wife.<sup>4</sup> She said; "Yes, but you have to promise not to tell anyone about the secret that I was once a fish, otherwise there will be a huge disaster".<sup>5</sup> The man made the deal and they got married, lived happily and had a daughter.<sup>6</sup>

- a. 1, 2, 3, and 4
- b. 2, 3, 4, and 5
- c. 1 and 6
- d. 4 and 5

15. The word 'disaster' means...

- a. calamity
- b. disease
- c. trouble
- d. illness

16. What's the main idea from the text?

- a. Story of a man lived in North Sumatera
- b. The Samosir Island

- c. A fishing man in Toba Lake
  - d. The story of Samosir
17. Finally, what did happen to the man?
- a. He sunk
  - b. He turned into a lake
  - c. He turned into a fish
  - d. He turned into an island

#### Text 4

A fox fell into a well and couldn't get out. By and by a thirsty goat came along. Seeing the fox in the well it asked if the water was good. "Good," said the fox, "It's the best water I've tasted in all my life. Come down and try it yourself."

The goat was thirsty so he got into the well. When he had drunk enough, he looked around but there was no way to get out. Then the fox said, "I have a good idea. You stand on your hind legs and put your forelegs against the side of the well. Then I'll climb on your back, from there. I'll step on your horns, and I can get out. And when I'm out, I'll help you out of the well."

The goat did as he was asked and the fox got on his back and climbed out of the well. Then he coolly walked away. The goat called out loudly after him and reminded him of his promise to help him out. The fox merely turned to him and said, "if you only had thought carefully about getting out, you wouldn't have jumped into the well."

The goat felt very sad. He called out loudly. An old man walking nearby heard him and put a plank into the well. The goat got out and thanked the old man.

18. The text tells about ....

- a. a fox
  - b. a goat
  - c. a fox, a goat and an old man
  - d. an old man and the fox
19. What is the main idea from the text?
- a. The fox into the well.
  - b. The goat was trapped by a fox into the well and they were into it.
  - c. The goat called out loudly after the fox got out.
  - d. The crafty fox.
20. “Come down and try it yourself.” (Paragraph 1). The underlined word refers to ....
- a. a well
  - b. water
  - c. a fox
  - d. a goat
21. “The goat called loudly after him.” The word ‘loudly’ means....
- a. smoothly
  - b. slowly
  - c. hardly
  - d. powerful
22. Look at the paragraph!

The goat was thirsty so he got into the well.**1** When he had drunk enough, he looked around but there was no way to get out.**2** Then the fox said, “I have a good idea. You stand on your hind legs and put your forelegs against the side of the well.**3** Then I’ll climb on your back, from there.**4** I’ll step on your horns, and I can get out. And when I’m out, I’ll help you out of the well.**5**

What's the number of the supporting sentence from the paragraph?

- a. 2, 3, and 4
- b. 1 and 5
- c. 1, 2, 3 and 4
- d. 3, 4, and 5

23. Finally, what did happen to the goat?

- a. The goat plank put in well.
- b. The goat was so sad.
- c. The goat out and thanked the old man.
- d. The old man left the goat.

#### Text 5

Once upon a time there was a poor widow who had an only son named Jack. They were so poor that they didn't have anything except a cow. When the cow had grown too old, his mother sent Jack to the market to sell it. On the way to the market, Jack met a butcher who had some beautiful beans in his hand. The butcher told the boy that the beans were of great value and persuaded the silly lad to sell the cow for the beans.

Jack brought them, happily. When he told his mother about this, his mother became so angry that she threw the beans out of the window. When Jack woke up in the morning, he felt the sun shining into a pan of his room, but all the rest was quite dark and shady.

So, he jumped to the window. What did he see? The beanstalk grew up quite close past Jack's window. He opened the window and jumped to the beanstalk which ran up just like a big ladder. He climbed and climbed till at last he reached the sky. While looking around, he saw a very huge castle. He was very amazed.

Then, Jack walked along the path leading to the castle. There was a big tail woman on the doorstep. Jack greeted her and asked for the giantess mercy to give him breakfast, because he felt very hungry. Although the giantess grumbled at first, finally she gave Jack a hunk of bread and cheese and a jug of milk.

Jack hadn't finished when the whole house began to tremble with the noise of someone's coming. "Oh! It's my husband!" cried the giantess. "What on earth shall I do?" Hastily the giantess opened a very big cupboard and hid Jack there.

24. What is the topic from the text above?
  - a. Jack and a butcher
  - b. a poor widow and his son
  - c. Jack and the bean stalk
  - d. The giantess and her husband
25. Where did Jack sell his cow?
  - a. at a castle
  - b. at the giants castle
  - c. at the butchers house
  - d. on the way to the market
26. Jack's mother looked very furious when Jack told that .....
  - a. the beans were precious
  - b. the butcher bought his cow
  - c. he traded his cow for the beans
  - d. he had sold his cow to a butcher
27. Oh! It's my husband !" cried the giantess (paragraph 7) from the sentence we know that the giantess is ... her husband
  - a. afraid of

- b. angry with
- c. fed up with
- d. annoyed with

28. What is the main idea from the text above?

- a. Jack and lovely cow's unlucky.
- b. A poor widow and a son that they didn't have anything, except a cow.
- c. Jack and his fussy mother.
- d. Jack and the giantess kindly.

29. Look at the paragraph!

Once upon a time there was a poor widow who had an only son named Jack.

1

They were so poor that they didn't have anything except a cow.

2

When the cow had grown too old, his mother sent Jack to the market to sell it.

3

On the way to the market, Jack met a butcher who had some beautiful beans in his hand.

4

The butcher told the boy that the beans were of great value and persuaded the silly lad to sell the cow for the beans.

5

Chose the numbers that have the supporting sentences from the paragraph above!

- a. 1 and 2
- b. 1, 2, and 3
- c. 2, 3, and 4
- d. 4 and 5

30. What did the giantess do in the last time?

- a. Hastily the giantess opened a very big cupboard and hid Jack there.
- b. The giantess cried her husband.
- c. The giantess and Jack were tremble with the noise of someone's coming.
- d. The giantess was came her husband.

#### **APPENDIX 4**

##### **INSTRUMENT TEST (Post Test before Testing Validity)**

**Information:** This test is just to know your ability in reading comprehension and there is no affected in your appraisal in final examination of this school.

Name :

Reg. No :

Class :

**Instruction** : Read narrative texts carefully and answer the question below. Each one is followed by several questions about it. The questions are 1-25 items and you have 60 minutes to answer all of the questions. So, you choose the one best answer, A, B, C, D, to each question. Give mark (X) on the best your answer.

##### *Text I*

Once upon a time, there was a man who was living in north Sumatra. He lived in a simple hut in a farming field. He did some gardening and fishing for his daily life.

One day, while the man was do fishing, he caught a big golden fish in

his trap. It was the biggest catch which he ever had in his life. Surprisingly, it turned into a beautiful princess. He felt in love with her and proposed her to be his wife. She said; "Yes, but you have to promise not to tell anyone about the secret that I was once a fish, otherwise there will be a huge disaster". The man made the deal and they got married, lived happily and had a daughter.

Few years later, his daughter would help bringing lunch to her father out in the fields. One day, his daughter was so hungry and she ate his father's lunch. Unfortunately, he found out and got furious, and shouted; "You damned daughter of a fish". The daughter ran home and asked her mother. The mother started crying, felt sad that her husband had broken his promise.

Then, she told her daughter to run up the hills because a huge disaster was about to come. When her daughter left, she prayed. Soon there was a big earthquake followed by non-stop pouring rain. The whole area got flooded and became Toba Lake. She turned into a fish again and the man became the island of Samosir.

1. The topic of above text is....
  - a. The island of Samosir
  - b. The story of Toba Lake
  - c. Life story of Samosir
  - d. A man was living in North Sumatra
2. Look at the paragraph!

One day, while the man was do fishing, he caught a big golden fish in his trap.<sup>1</sup> It was the biggest catch which he ever had in his life.<sup>2</sup> Surprisingly, it turned into a beautiful princess.<sup>3</sup> He felt in love with her and proposed her to be his wife.<sup>4</sup> She said; "Yes, but you have to promise not to tell anyone about the secret that I was once a fish,



otherwise there will be a huge disaster".<sup>5</sup> The man made the deal and they got married, lived happily and had a daughter.<sup>6</sup>

What is the number of supporting sentence from the paragraph?

- a. 1, 2, 3, and 4
  - b. 2, 3, 4, and 5
  - c. 1 and 6
  - d. 4 and 5
3. The word 'disaster' means...
- a. calamity
  - b. disease
  - c. trouble
  - d. illness
4. What's the main idea from the text?
- a. Story of a man lived in North Sumatera
  - b. The Samosir Island
  - c. A fishing man in Toba Lake
  - d. The story of Samosir
5. Finally, what did happen to the man?
- a. He sunk
  - b. He turned into a lake
  - c. He turned into a fish
  - d. He turned into an island

### Text 2

A man in Puerto Rico had a wonderful parrot. There was no another parrot like it.

It was very, very smart. This parrot would say any word-except one. He would not say the name of the town where he was born. The name of the town was Catano.

The man tried to teach the parrot to say Catano. But the bird would not say the word. At first the man was very nice, but then he got angry. "You are a stupid bird! Why can't you say the word? Say Catano, or I will kill you!" but the parrot would not say it. Then the man got so angry that he shouted over and over, "Say Catano, or I'll kill you!" but the bird would not talk.

One day after trying for many hours to make the bird say Catano, the man got very angry. He picked up the bird and threw him into the chicken house. "You are more stupid than the chickens. Soon I will eat them, and I will eat you, too."

In the chicken house there are four old chickens. They were for Sunday's dinner. The man put the parrot in the chicken house and left.

The next day the man came back to the chicken house. He opened the door and stopped. He was very surprised at what he saw!

He saw three dead chickens on the floor. The parrot was screaming at the fourth chicken, "Say Catano, or I'll kill you!"

6. Where does the story take place?
  - a. London
  - b. Puerto Rico
  - c. Jakarta
  - d. Buenos Aires
7. What is the word that the parrot cannot say?

- a. Catano
  - b. Tacano
  - c. Canato
  - d. Nacato
8. What is the story about?
- a. A parrot and a cat
  - b. A parrot and a chicken
  - c. A parrot and the owner
  - d. A parrot, the owner, and chickens
9. What is the main idea from the text above?
- a. The story of a man and a wonderful parrot.
  - b. A parrot, the owner, and chickens.
  - c. A man has a parrot and the chickens.
  - d. A stupid parrot.
10. Look at the paragraph!

The man tried to teach the parrot to say Catano.<sup>1</sup> But the bird would not say the word. At first the man was very nice, but then he got angry.<sup>2</sup> “You are a stupid bird! Why can’t you say the word? Say Catano, or I will kill you!” but the parrot would not say it.<sup>3</sup> Then the man got so angry that he shouted over and over, “Say Catano, or I’ll kill you!” but the bird would not talk.<sup>4</sup>

What is the number of supporting sentence from the paragraph?

- a. 2, 3 and 4
- b. 1 and 4
- c. 3 and 4
- d. all of number

11. The parrot was screaming at the fourth chicken, “Say Catano, or I’ll kill you!”

The antonym of *screaming* from the sentence above is....

- a. crying
- b. shouting
- c. enjoying
- d. silently

12. What is the conclusion of the text?

- a. The last, the parrot can says “Catano, or I’ll kill you” like the man was taught.
- b. The parrot can’t say catano.
- c. The parrot is stupid bird.
- d. The parrot kills the chickens.

### Text 3

A fox fell into a well and couldn’t get out. By and by a thirsty goat came along. Seeing the fox in the well it asked if the water was good. “Good,” said the fox, “It’s the best water I’ve tasted in all my life. Come down and try it yourself.”

The goat was thirsty so he got into the well. When he had drunk enough, he looked around but there was no way to get out. Then the fox said, “I have a good idea. You stand on your hind legs and put your forelegs against the side of the well. Then I’ll climb on your back, from there. I’ll step on your horns, and I can get out. And when I’m out, I’ll help you out of the well.

The goat did as he was asked and the fox got on his back and climbed out of the well. Then he coolly walked away. The goat called out loudly after him and reminded him of his promise to help him out. The fox merely turn to

him and said, “if you only had thought carefully about getting out, you wouldn’t have jumped into the well.”

The goat felt very sad. He called out loudly. An old man walking nearby heard him and put a plank into the well. The goat out and thanked the old man.

13. The text tells about ....
  - a. a fox
  - b. a goat
  - c. a fox, a goat and an old man
  - d. an old man and the fox
14. What is the main idea from the text?
  - a. The fox into the well.
  - b. The goat was trapped by a fox into the well and they were into it.
  - c. The goat called out loudly after the fox got out.
  - d. The crafty fox.
15. “Come down and try it yourself.” (Paragraph 1). The underlined word refers to ....
  - a. a well
  - b. water
  - c. a fox
  - d. a goat
16. “The goat called loudly after him.” The word ‘loudly’ means....
  - a. smoothly
  - b. slowly
  - c. hardly
  - d. powerful

17. Look at the paragraph!

The goat was thirsty so he got into the well.**1** When he had drunk enough, he looked around but there was no way to get out.**2** Then the fox said, “I have a good idea. You stand on your hind legs and put your forelegs against the side of the well.**3** Then I’ll climb on your back, from there.**4** I’ll step on your horns, and I can get out. And when I’m out, I’ll help you out of the well.**5**

What’s the number of the supporting sentence from the paragraph?

- a. 2, 3, and 4
  - b. 1 and 5
  - c. 1, 2, 3 and 4
  - d. 3, 4, and 5
18. Finally, what did happen to the goat?
- a. The goat plank put in well.
  - b. The goat was so sad.
  - c. The goat out and thanked the old man.
  - d. The old man left the goat.

#### Text 4

Once upon a time there was a poor widow who had an only son named Jack. They were so poor that they didn't have anything except a cow. When the cow had grown too old, his mother sent Jack to the market to sell it. On the way to the market, Jack met a butcher who had some beautiful beans in his hand. The butcher told the boy that the beans were of great value and persuaded the silly lad to sell the cow for the beans.

Jack brought them, happily. When he told his mother about this, his mother became so angry that she threw the beans out of the window. When

Jack woke up in the morning, he felt the sun shining into a pan of his room, but all the rest was quite dark and shady.

So, he jumped to the window. What did he see? The beanstalk grew up quite close past Jack's window. He opened the window and jumped to the beanstalk which ran up just like a big ladder. He climbed and climbed till at last he reached the sky. While looking around, he saw a very huge castle. He was very amazed.

Then, Jack walked along the path leading to the castle. There was a big tail woman on the doorstep. Jack greeted her and asked for the giantess mercy to give him breakfast, because he felt very hungry. Although the giantess grumbled at first, finally she gave Jack a hunk of bread and cheese and a jug of milk.

Jack hadn't finished when the whole house began to tremble with the noise of someone's coming. "Oh! It's my husband!" cried the giantess. "What on earth shall I do?" Hastily the giantess opened a very big cupboard and hid Jack there.

19. What is the topic from the text above?

- a. Jack and a butcher
- b. a poor widow and his son
- c. Jack and the bean stalk
- d. The giantess and her husband

20. Where did Jack sell his cow?

- a. at a castle
- b. at the giants castle
- c. at the butchers house
- d. on the way to the market

21. Jack's mother looked very furious when jack told that .....
- a. the beans were precious
  - b. the butcher bought his cow
  - c. he traded his cow for the beans
  - d. he had sold his cow to a butcher
22. Oh! It's my husband !" cried the giantess (paragraph 7) from the sentence we know that the giantess is ... her husband
- a. afraid of
  - b. angry with
  - c. fed up with
  - d. annoyed with
23. What is the main idea from the text above?
- a. Jack and lovely cow's unlucky.
  - b. A poor widow and a son that they didn't have anything, except a cow.
  - c. Jack and his fussy mother.
  - d. Jack and the giantess kindly.
24. Look at the paragraph!

Once upon a time there was a poor widow who had an only son named Jack.

1

They were so poor that they didn't have anything except a cow.

2

When the cow had grown too old, his mother sent Jack to the market to sell it.

3

On the way to the market, Jack met a butcher who had some beautiful beans in his hand.

4



The butcher told the boy that the beans were of great value and persuaded the silly lad to sell the cow for the beans.

5

Chose the numbers that have the supporting sentences from the paragraph above!

- a. 1 and 2
- b. 1, 2, and 3
- c. 2, 3, and 4
- d. 4 and 5

25. What did the giantess do in the last time?

- a. Hastily the giantess opened a very big cupboard and hid Jack there.
- b. The giantess cried her husband.
- c. The giantess and Jack were tremble with the noise of someone's coming.
- d. The giantess was came her husband.

#### Text 5

Bawang Putih lived with her step mother and her step sister Bawang Merah. Bawang Putih's mother died when she was a baby. Her father remarried another woman and later her step sister was born. Unfortunately, not long after that her father died. Since then, Bawang Putih's life was sad. Her step mother and her step sister treated Bawang Putih badly and always asked her to do all the household chores.

One morning, Bawang Putih was washing some clothes in a river. Accidentally, her mother's clothes were washed away by the river. She was really worried so she walked along the river side to find the clothes. Finally she met an old woman. She said that she kept the clothes and would give them back to Bawang Putih if she helped the old woman do the household chores.

Bawang Putih helped her happily. After everything was finished, the old woman returned the clothes. She also gave Bawang Putih a gift. The old woman had two pumpkins, one pumpkin was small and the other one was big. Bawang Putih had to choose one.

Bawang Putih was not a greedy girl. So she took the small one. After thanking the old woman, Bawang Putih then went home. When she arrived home, her step mother and Bawang Merah were angry. They had been waiting for her all day long. Bawang Putih then told about the clothes, the old woman, and the pumpkin. Her mother was really angry so she grabbed the pumpkin and smashed it to the floor. Suddenly they all were surprised. Inside the pumpkin they found jewelries. "Bawang Merah, hurry up. Go to the river and throw my clothes into the water. After that, find the old woman. Remember, you have to take the big pumpkin," the step mother asked Bawang Merah to do exactly the same as Bawang Putih's experience. Bawang Merah immediately went to the river. She threw the clothes and pretended to search them. Not long after that, she met the old woman. Again she asked Bawang Merah to do household chores. She refused and asked the old woman to give her a big pumpkin. The old woman then gave her the big one. Bawang Merah was so happy. She ran very fast. When she arrived home, her mother was impatient. She directly smashed the pumpkin to the floor. They were screaming. There were a lot of snakes inside the pumpkin! They were really scared. They were afraid the snakes would bite them. "Mom, I think God just punished us. We had done bad things to Bawang Putih. And God didn't like that. We have to apologize to Bawang Putih," said Bawang Merah.

Finally, both of them realized their mistakes. They apologized and Bawang Putih forgave them. Now the family is not poor anymore. Bawang Putih decided to sell all the jewelries and used the money for their daily lives.

26. What is the topic from the text above?

- a. Story of Bawang Merah and Bawang Putih
- b. Bawang Putih, stepmother and stepsister
- c. The life story of Bawang Putih
- d. The kind of Bawang Putih

27. What is the main idea from the text?

- a. Stepmother and stepsister are bad
- b. The patience of Bawang Putih to doing stepmother and stepsister
- c. The kind of Bawang Putih
- d. Unforgettable experience of Bawang Putih and Bawang Merah

28. Look at the paragraph!

Bawang Putih lived with her step mother and her step sister Bawang Merah.**1** Bawang Putih's mother died when she was a baby.**2** Her father remarried another woman and later her step sister was born.**3** Unfortunately, not long after that her father died. Since then, Bawang Putih's life was sad.**4** Her step mother and her step sister treated Bawang Putih badly and always asked her to do all the household chores.**5**

From the paragraph above, what are the supporting sentences?

- a. 1, 2 and 3
- b. 2, 3, 4, and 5
- c. 1 and 5
- d. 1, 4, and 5

29. Bawang Putih was not a greedy girl.

The antonym of greedy girl is....

- a. friendly girl
- b. covetous girl

- c. bad girl
- d. generous girl

30. Finally, what did happen to Bawang Putih?

- a. Bawang Putih forgave their stepmother and stepsister and they were happily.
- b. Stepmother and stepsister are unlucky.
- c. Life of Bawang Putih is bad.
- d. Bawang Putih to be a greedy girl.

## **APPENDIX 5**

### **INSTRUMENT TEST (Pre Test after Testing Validity)**

**Information:** This test is just to know your ability in reading comprehension and there is no affected in your appraisal in final examination of this school.

Name :

Reg. No :

Class :

**Instruction :** Read narrative texts carefully and answer the question below. Each one is followed by several questions about it. The questions are 1-25 items and you have 60 minutes to answer all of the questions. So, you choose the one best answer, A, B, C, D, to each question. Give mark (X) on the best your answer.

#### *Text I*

A man in Puerto Rico had a wonderful parrot. There was no another parrot like it. It was very, very smart. This parrot would say any word-except

one. He would not say the name of the town where he was born. The name of the town was Catano.

The man tried to teach the parrot to say Catano. But the bird would not say the word. At first the man was very nice, but then he got angry. “You are a stupid bird! Why can’t you say the word? Say Catano, or I will kill you!” but the parrot would not say it. Then the man got so angry that he shouted over and over, “Say Catano, or I’ll kill you!” but the bird would not talk.

One day after trying for many hours to make the bird say Catano, the man got very angry. He picked up the bird and threw him into the chicken house. “You are more stupid than the chickens. Soon I will eat them, and I will eat you, too.”

In the chicken house there are four old chickens. They were for Sunday’s dinner. The man put the parrot in the chicken house and left. The next day the man came back to the chicken house. He opened the door and stopped. He was very surprised at what he saw!

He saw three dead chickens on the floor. The parrot was screaming at the fourth chicken, “Say Catano, or I’ll kill you!”

1. Where does the story take place?
  - e. London
  - f. Puerto Rico
  - g. Jakarta
  - h. Buenos Aires
2. What is the story about?
  - e. A parrot and a cat
  - f. A parrot and a chicken
  - g. A parrot and the owner
  - h. A parrot, the owner, and chickens

3. Look at the paragraph!

The man tried to teach the parrot to say Catano.<sup>1</sup> But the bird would not say the word. At first the man was very nice, but then he got angry.<sup>2</sup> “You are a stupid bird! Why can’t you say the word? Say Catano, or I will kill you!” but the parrot would not say it.<sup>3</sup> Then the man got so angry that he shouted over and over, “Say Catano, or I’ll kill you!” but the bird would not talk.<sup>4</sup>

What is the number of supporting sentence from the paragraph?

- e. 2, 3 and 4
  - f. 1 and 4
  - g. 3 and 4
  - h. all of number
4. What is the main idea from the text above?
- e. The story of a man and a wonderful parrot.
  - f. A parrot, the owner, and chickens.
  - g. A man has a parrot and the chickens.
  - h. A stupid parrot.
5. What is the conclusion of the text?
- e. The last, the parrot can says “Catano, or I’ll kill you” like the man was taught.
  - f. The parrot can’t say catano.
  - g. The parrot is stupid bird.
  - h. The parrot kills the chickens.

### Text 2

Bawang Putih lived with her step mother and her step sister Bawang Merah. Bawang Putih's mother died when she was a baby. Her father remarried

another woman and later her step sister was born. Unfortunately, not long after that her father died. Since then, Bawang Putih's life was sad. Her step mother and her step sister treated Bawang Putih badly and always asked her to do all the household chores.

One morning, Bawang Putih was washing some clothes in a river. Accidentally, her mother's clothes were washed away by the river. She was really worried so she walked along the river side to find the clothes. Finally she met an old woman. She said that she kept the clothes and would give them back to Bawang Putih if she helped the old woman do the household chores. Bawang Putih helped her happily. After everything was finished, the old woman returned the clothes. She also gave Bawang Putih a gift. The old woman had two pumpkins, one pumpkin was small and the other one was big. Bawang Putih had to choose one.

Bawang Putih was not a greedy girl. So she took the small one. After thanking the old woman, Bawang Putih then went home. When she arrived home, her step mother and Bawang Merah were angry. They had been waiting for her all day long. Bawang Putih then told about the clothes, the old woman, and the pumpkin. Her mother was really angry so she grabbed the pumpkin and smashed it to the floor. Suddenly they all were surprised. Inside the pumpkin they found jewelries. "Bawang Merah, hurry up. Go to the river and throw my clothes into the water. After that, find the old woman. Remember, you have to take the big pumpkin," the step mother asked Bawang Merah to do exactly the same as Bawang Putih's experience. Bawang Merah immediately went to the river. She threw the clothes and pretended to search them. Not long after that, she met the old woman. Again she asked Bawang Merah to do household chores. She refused and asked the old woman to give her a big pumpkin. The old woman then gave her the big one. Bawang Merah was so

happy. She ran very fast. When she arrived home, her mother was impatient. She directly smashed the pumpkin to the floor. They were screaming. There were a lot of snakes inside the pumpkin! They were really scared. They were afraid the snakes would bite them. "Mom, I think God just punished us. We had done bad things to Bawang Putih. And God didn't like that. We have to apologize to Bawang Putih," said Bawang Merah.

Finally, both of them realized their mistakes. They apologized and Bawang Putih forgave them. Now the family is not poor anymore. Bawang Putih decided to sell all the jewelries and used the money for their daily lives.

6. What is the topic from the text above?
  - e. Story of Bawang Merah and Bawang Putih
  - f. Bawang Putih, stepmother and stepsister
  - g. The life story of Bawang Putih
  - h. The kind of Bawang Putih
7. What is the main idea from the text?
  - e. Stepmother and stepsister are bad
  - f. The patience of Bawang Putih to doing stepmother and stepsister
  - g. The kind of Bawang Putih
  - h. Unforgettable experience of Bawang Putih and Bawang Merah
8. Look at the paragraph!

Bawang Putih lived with her step mother and her step sister Bawang Merah.<sup>1</sup> Bawang Putih's mother died when she was a baby.<sup>2</sup> Her father remarried another woman and later her step sister was born.<sup>3</sup> Unfortunately, not long after that her father died. Since then, Bawang Putih's life was sad.<sup>4</sup> Her step mother and her step sister treated Bawang Putih badly and always asked her to do all the household chores.<sup>5</sup>



From the paragraph above, what are the supporting sentences?

- e. 1, 2 and 3
  - f. 2, 3, 4, and 5
  - g. 1 and 5
  - h. 1, 4, and 5
9. Bawang Putih was not a greedy girl.
- The antonym of greedy girl is....
- e. friendly girl
  - f. covetous girl
  - g. bad girl
  - h. generous girl
10. Finally, what did happen to Bawang Putih?
- e. Bawang Putih forgave their stepmother and stepsister and they were happily.
  - f. Stepmother and stepsister are unlucky.
  - g. Life of Bawang Putih is bad.
  - h. Bawang Putih to be a greedy girl.

### Text 3

Once upon a time, there was a man who was living in north Sumatra. He lived in a simple hut in a farming field. He did some gardening and fishing for his daily life.

One day, while the man was do fishing, he caught a big golden fish in his trap. It was the biggest catch which he ever had in his life. Surprisingly, it turned into a beautiful princess. He felt in love with her and proposed her to be his wife. She said; "Yes, but you have to promise not to tell anyone about the secret that I was once a fish, otherwise there will be a huge disaster". The man

made the deal and they got married, lived happily and had a daughter.

Few years later, his daughter would help bringing lunch to her father out in the fields. One day, his daughter was so hungry and she ate his father's lunch. Unfortunately, he found out and got furious, and shouted; "You damned daughter of a fish". The daughter ran home and asked her mother. The mother started crying, felt sad that her husband had broken his promise.

Then, she told her daughter to run up the hills because a huge disaster was about to come. When her daughter left, she prayed. Soon there was a big earthquake followed by non-stop pouring rain. The whole area got flooded and became Toba Lake. She turned into a fish again and the man became the island of Samosir.

11. The topic of above text is....

- e. The island of Samosir
- f. The story of Toba Lake
- g. Life story of Samosir
- h. A man was living in North Sumatra

12. Look at the paragraph!

One day, while the man was do fishing, he caught a big golden fish in his trap.<sup>1</sup> It was the biggest catch which he ever had in his life.<sup>2</sup> Surprisingly, it turned into a beautiful princess.<sup>3</sup> He felt in love with her and proposed her to be his wife.<sup>4</sup> She said; "Yes, but you have to promise not to tell anyone about the secret that I was once a fish, otherwise there will be a huge disaster".<sup>5</sup> The man made the deal and they got married, lived happily and had a daughter.<sup>6</sup>

- e. 1, 2, 3, and 4
- f. 2, 3, 4, and 5
- g. 1 and 6

- h. 4 and 5
- 13. The word 'disaster' means...
  - e. calamity
  - f. disease
  - g. trouble
  - h. illness
- 14. What's the main idea from the text?
  - e. Story of a man lived in North Sumatera
  - f. The Samosir Island
  - g. A fishing man in Toba Lake
  - h. The story of Samosir
- 15. Finally, what did happen to the man?
  - e. He sunk
  - f. He turned into a lake
  - g. He turned into a fish
  - h. He turned into an island

#### Text 4

A fox fell into a well and couldn't get out. By and by a thirsty goat came along. Seeing the fox in the well it asked if the water was good. "Good," said the fox, "It's the best water I've tasted in all my life. Come down and try it yourself."

The goat was thirsty so he got into the well. When he had drunk enough, he looked around but there was no way to get out. Then the fox said, "I have a good idea. You stand on your hind legs and put your forelegs against the side of the well. Then I'll climb on your back, from there. I'll step on your horns, and I can get out. And when I'm out, I'll help you out of the well."

The goat did as he was asked and the fox got on his back and climbed out of the well. Then he coolly walked away. The goat called out loudly after him and reminded him of his promise to help him out. The fox merely turn to him and said, “if you only had thought carefully about getting out, you wouldn’t have jumped into the well.”

The goat felt very sad. He called out loudly. An old man walking nearby heard him and put a plank into the well. The goat out and thanked the old man.

16. The text tells about ....
  - e. a fox
  - f. a goat
  - g. a fox, a goat and an old man
  - h. an old man and the fox
17. What is the main idea from the text?
  - e. The fox into the well.
  - f. The goat was trapped by a fox into the well and they were into it.
  - g. The goat called out loudly after the fox got out.
  - h. The crafty fox.
18. “Come down and try it yourself.” (Paragraph 1). The underlined word refers to ....
  - e. a well
  - f. water
  - g. a fox
  - h. a goat
19. “The goat called loudly after him.” The word ‘loudly’ means....
  - e. smoothly
  - f. slowly

- g. hardly
- h. powerful

20. Look at the paragraph!

The goat was thirsty so he got into the well.**1** When he had drunk enough, he looked around but there was no way to get out.**2** Then the fox said, "I have a good idea. You stand on your hind legs and put your forelegs against the side of the well."**3** Then I'll climb on your back, from there.**4** I'll step on your horns, and I can get out. And when I'm out, I'll help you out of the well.**5**

What's the number of the supporting sentence from the paragraph?

- e. 2, 3, and 4
  - f. 1 and 5
  - g. 1, 2, 3 and 4
  - h. 3, 4, and 5
21. Finally, what did happen to the goat?
- e. The goat plank put in well.
  - f. The goat was so sad.
  - g. The goat out and thanked the old man.
  - h. The old man left the goat.

#### Text 5

Once upon a time there was a poor widow who had an only son named Jack. They were so poor that they didn't have anything except a cow. When the cow had grown too old, his mother sent Jack to the market to sell it. On the way to the market, Jack met a butcher who had some beautiful beans in his hand. The butcher told the boy that the beans were of great value and persuaded the silly lad to sell the cow for the beans.

Jack brought them, happily. When he told his mother about this, his mother became so angry that she threw the beans out of the window. When Jack woke up in the morning, he felt the sun shining into a pan of his room, but all the rest was quite dark and shady.

So, he jumped to the window. What did he see? The beanstalk grew up quite close past Jack's window. He opened the window and jumped to the beanstalk which ran up just like a big ladder. He climbed and climbed till at last he reached the sky. While looking around, he saw a very huge castle. He was very amazed.

Then, Jack walked along the path leading to the castle. There was a big tall woman on the doorstep. Jack greeted her and asked for the giantess mercy to give him breakfast, because he felt very hungry. Although the giantess grumbled at first, finally she gave Jack a hunk of bread and cheese and a jug of milk.

Jack hadn't finished when the whole house began to tremble with the noise of someone's coming. "Oh! It's my husband!" cried the giantess. "What on earth shall I do?" Hastily the giantess opened a very big cupboard and hid Jack there.

22. What is the topic from the text above?

- e. Jack and a butcher
- f. a poor widow and his son
- g. Jack and the bean stalk
- h. The giantess and her husband

23. Look at the paragraph!

Once upon a time there was a poor widow who had an only son named Jack.

They were so poor that they didn't have anything except a cow.

2

When the cow had grown too old, his mother sent Jack to the market to sell it.

3

On the way to the market, Jack met a butcher who had some beautiful beans in his hand.

4

The butcher told the boy that the beans were of great value and persuaded the silly lad to sell the cow for the beans.

5

Chose the numbers that have the supporting sentences from the paragraph above!

- e. 1 and 2
- f. 1, 2, and 3
- g. 2, 3, and 4
- h. 4 and 5

24. What did the giantess do in the last time?

- e. Hastily the giantess opened a very big cupboard and hid Jack there.
- f. The giantess cried her husband.
- g. The giantess and Jack were tremble with the noise of someone's coming.
- h. The giantess was came her husband.

25. What is the main idea from the text above?

- e. Jack and lovely cow's unlucky.
- f. A poor widow and a son that they didn't have anything, except a cow.
- g. Jack and his fussy mother.
- h. Jack and the giantess kindly.

Validator,

**Syarifah Sima, S.Pd**

**NIP: 19750812 200904 2 002**



## APPENDIX 6

### INSTRUMENT TEST (Post Test after Testing Validity)

**Information:** This test is just to know your ability in reading comprehension and there is no affected in your appraisal in final examination of this school.

Name :

Reg. No :

Class :

**Instruction :** Read narrative texts carefully and answer the question below. Each one is followed by several questions about it. The questions are 1-25 items and you have 60 minutes to answer all of the questions. So, you choose the one best answer, A, B, C, D, to each question. Give mark (X) on the best your answer.

#### Text I

Once upon a time, there was a man who was living in north Sumatra. He lived in a simple hut in a farming field. He did some gardening and fishing for his daily life.

One day, while the man was do fishing, he caught a big golden fish in his trap. It was the biggest catch which he ever had in his life. Surprisingly, it turned into a beautiful princess. He felt in love with her and proposed her to be his wife. She said; "Yes, but you have to promise not to tell anyone about the secret that I was once a fish, otherwise there will be a huge disaster". The man made the deal and they got married, lived happily and had a daughter.

Few years later, his daughter would help bringing lunch to her father out in the fields. One day, his daughter was so hungry and she ate his father's lunch. Unfortunately, he found out and got furious, and shouted; "You damned

daughter of a fish". The daughter ran home and asked her mother. The mother started crying, felt sad that her husband had broken his promise.

Then, she told her daughter to run up the hills because a huge disaster was about to come. When her daughter left, she prayed. Soon there was a big earthquake followed by non-stop pouring rain. The whole area got flooded and became Toba Lake. She turned into a fish again and the man became the island of Samosir.

31. The topic of above text is....

- e. The island of Samosir
- f. The story of Toba Lake
- g. Life story of Samosir
- h. A man was living in North Sumatra

32. The word 'disaster' means...

- e. calamity
- f. disease
- g. trouble
- h. illness

33. Look at the paragraph!

One day, while the man was do fishing, he caught a big golden fish in his trap.**1** It was the biggest catch which he ever had in his life.**2** Surprisingly, it turned into a beautiful princess.**3** He felt in love with her and proposed her to be his wife.**4** She said; "Yes, but you have to promise not to tell anyone about the secret that I was once a fish, otherwise there will be a huge disaster".**5** The man made the deal and they got married, lived happily and had a daughter.**6**

What is the number of supporting sentence from the paragraph?

- e. 1, 2, 3, and 4

- f. 2, 3, 4, and 5
  - g. 1 and 6
  - h. 4 and 5
34. What's the main idea from the text?
- e. Story of a man lived in North Sumatera
  - f. The Samosir Island
  - g. A fishing man in Toba Lake
  - h. The story of Samosir
35. Finally, what did happen to the man?
- i. He sunk
  - j. He turned into a lake
  - k. He turned into a fish
  - l. He turned into an island

### Text 2

A man in Puerto Rico had a wonderful parrot. There was no another parrot like it. It was very, very smart. This parrot would say any word-except one. He would not say the name of the town where he was born. The name of the town was Catano.

The man tried to teach the parrot to say Catano. But the bird would not say the word. At first the man was very nice, but then he got angry. "You are a stupid bird! Why can't you say the word? Say Catano, or I will kill you!" but the parrot would not say it. Then the man got so angry that he shouted over and over, "Say Catano, or I'll kill you!" but the bird would not talk.

One day after trying for many hours to make the bird say Catano, the man got very angry. He picked up the bird and threw him into the chicken

house. “You are more stupid than the chickens. Soon I will eat them, and I will eat you, too.”

In the chicken house there are four old chickens. They were for Sunday’s dinner. The man put the parrot in the chicken house and left.

The next day the man came back to the chicken house. He opened the door and stopped. He was very surprised at what he saw! He saw three dead chickens on the floor. The parrot was screaming at the fourth chicken, “Say Catano, or I’ll kill you!”

36. What is the word that the parrot cannot say?

- e. Catano
- f. Tacano
- g. Canato
- h. Nacato

37. What is the story about?

- e. A parrot and a cat
- f. A parrot and a chicken
- g. A parrot and the owner
- h. A parrot, the owner, and chickens

38. What is the main idea from the text above?

- e. The story of a man and a wonderful parrot.
- f. A parrot, the owner, and chickens.
- g. A man has a parrot and the chickens.
- h. A stupid parrot.

39. Look at the paragraph!

The man tried to teach the parrot to say Catano.<sup>1</sup> But the bird would not say the word. At first the man was very nice, but then he got

angry.2 “You are a stupid bird! Why can’t you say the word? Say Catano, or I will kill you!” but the parrot would not say it.3 Then the man got so angry that he shouted over and over, “Say Catano, or I’ll kill you!” but the bird would not talk.4

What is the number of supporting sentence from the paragraph?

- e. 2, 3 and 4
- f. 1 and 4
- g. 3 and 4
- h. all of number

40. What is the conclusion of the text?

- e. The last, the parrot can says “Catano, or I’ll kill you” like the man was taught.
- f. The parrot can’t say catano.
- g. The parrot is stupid bird.
- h. The parrot kills the chickens.

### Text 3

A fox fell into a well and couldn’t get out. By and by a thirsty goat came along. Seeing the fox in the well it asked if the water was good. “Good,” said the fox, “It’s the best water I’ve tasted in all my life. Come down and try it yourself.”

The goat was thirsty so he got into the well. When he had drunk enough, he looked around but there was no way to get out. Then the fox said, “I have a good idea. You stand on your hind legs and put your forelegs against the side of the well. Then I’ll climb on your back, from there. I’ll step on your horns, and I can get out. And when I’m out, I’ll help you out of the well.

The goat did as he was asked and the fox got on his back and climbed out of the well. Then he coolly walked away. The goat called out loudly after him and reminded him of his promise to help him out. The fox merely turned to him and said, “if you only had thought carefully about getting out, you wouldn’t have jumped into the well.”

The goat felt very sad. He called out loudly. An old man walking nearby heard him and put a plank into the well. The goat got out and thanked the old man.

41. The text tells about ....

- e. a fox
- f. a goat
- g. a fox, a goat and an old man
- h. an old man and the fox

42. Look at the paragraph!

The goat was thirsty so he got into the well.**1** When he had drunk enough, he looked around but there was no way to get out.**2** Then the fox said, “I have a good idea. You stand on your hind legs and put your forelegs against the side of the well.”**3** Then I’ll climb on your back, from there.**4** I’ll step on your horns, and I can get out. And when I’m out, I’ll help you out of the well.**5**

What’s the number of the supporting sentence from the paragraph?

- e. 2, 3, and 4
- f. 1 and 5
- g. 1, 2, 3 and 4
- h. 3, 4, and 5

43. What is the main idea from the text?

- e. The fox into the well.

- f. The goat was trapped by a fox into the well and they were into it.
  - g. The goat called out loudly after the fox got out.
  - h. The crafty fox.
44. "The goat called loudly after him." The word 'loudly' means....
- e. smoothly
  - f. slowly
  - g. hardly
  - h. powerful
45. Finally, what did happen to the goat?
- e. The goat plank put in well.
  - f. The goat was so sad.
  - g. The goat out and thanked the old man.
  - h. The old man left the goat.

#### Text 4

Once upon a time there was a poor widow who had an only son named Jack. They were so poor that they didn't have anything except a cow. When the cow had grown too old, his mother sent Jack to the market to sell it. On the way to the market, Jack met a butcher who had some beautiful beans in his hand. The butcher told the boy that the beans were of great value and persuaded the silly lad to sell the cow for the beans.

Jack brought them, happily. When he told his mother about this, his mother became so angry that she threw the beans out of the window. When Jack woke up in the morning, he felt the sun shining into a pan of his room, but all the rest was quite dark and shady.

So, he jumped to the window. What did he see? The beanstalk grew up quite close past Jack's window. He opened the window and jumped to the

beanstalk which ran up just like a big ladder. He climbed and climbed till at last he reached the sky. While looking around, he saw a very huge castle. He was very amazed.

Then, Jack walked along the path leading to the castle. There was a big tail woman on the doorstep. Jack greeted her and asked for the giantess mercy to give him breakfast, because he felt very hungry. Although the giantess grumbled at first, finally she gave Jack a hunk of bread and cheese and a jug of milk.

Jack hadn't finished when the whole house began to tremble with the noise of someone's coming. "Oh! It's my husband!" cried the giantess. "What on earth shall I do?" Hastily the giantess opened a very big cupboard and hid Jack there.

46. What is the topic from the text above?

- e. Jack and a butcher
- f. a poor widow and his son
- g. Jack and the bean stalk
- h. The giantess and her husband

47. Where did Jack sell his cow?

- e. at a castle
- f. at the giants castle
- g. at the butchers house
- h. on the way to the market

48. What is the main idea from the text above?

- e. Jack and lovely cow's unlucky.
- f. A poor widow and a son that they didn't have anything, except a cow.
- g. Jack and his fussy mother.



h. Jack and the giantess kindly.

49. Look at the paragraph!

Once upon a time there was a poor widow who had an only son named Jack.

1

They were so poor that they didn't have anything except a cow.

2

When the cow had grown too old, his mother sent Jack to the market to sell it.

3

On the way to the market, Jack met a butcher who had some beautiful beans in his hand.

4

The butcher told the boy that the beans were of great value and persuaded the silly lad to sell the cow for the beans.

5

Chose the numbers that have the supporting sentences from the paragraph above!

e. 1 and 2

f. 1, 2, and 3

g. 2, 3, and 4

h. 4 and 5

50. What did the giantess do in the last time?

e. Hastily the giantess opened a very big cupboard and hid Jack there.

f. The giantess cried her husband.

g. The giantess and Jack were tremble with the noise of someone's coming.

h. The giantess was came her husband.

### Text 5

Bawang Putih lived with her step mother and her step sister Bawang Merah. Bawang Putih's mother died when she was a baby. Her father remarried another woman and later her step sister was born. Unfortunately, not long after

that her father died. Since then, Bawang Putih's life was sad. Her step mother and her step sister treated Bawang Putih badly and always asked her to do all the household chores.

One morning, Bawang Putih was washing some clothes in a river. Accidentally, her mother's clothes were washed away by the river. She was really worried so she walked along the river side to find the clothes. Finally she met an old woman. She said that she kept the clothes and would give them back to Bawang Putih if she helped the old woman do the household chores. Bawang Putih helped her happily. After everything was finished, the old woman returned the clothes. She also gave Bawang Putih a gift. The old woman had two pumpkins, one pumpkin was small and the other one was big. Bawang Putih had to choose one.

Bawang Putih was not a greedy girl. So she took the small one. After thanking the old woman, Bawang Putih then went home. When she arrived home, her step mother and Bawang Merah were angry. They had been waiting for her all day long. Bawang Putih then told about the clothes, the old woman, and the pumpkin. Her mother was really angry so she grabbed the pumpkin and smashed it to the floor. Suddenly they all were surprised. Inside the pumpkin they found jewelries. "Bawang Merah, hurry up. Go to the river and throw my clothes into the water. After that, find the old woman. Remember, you have to take the big pumpkin," the step mother asked Bawang Merah to do exactly the same as Bawang Putih's experience. Bawang Merah immediately went to the river. She threw the clothes and pretended to search them. Not long after that, she met the old woman. Again she asked Bawang Merah to do household chores. She refused and asked the old woman to give her a big pumpkin. The old woman then gave her the big one. Bawang Merah was so happy. She ran very fast. When she arrived home, her mother was impatient.

She directly smashed the pumpkin to the floor. They were screaming. There were a lot of snakes inside the pumpkin! They were really scared. They were afraid the snakes would bite them. "Mom, I think God just punished us. We had done bad things to Bawang Putih. And God didn't like that. We have to apologize to Bawang Putih," said Bawang Merah.

Finally, both of them realized their mistakes. They apologized and Bawang Putih forgave them. Now the family is not poor anymore. Bawang Putih decided to sell all the jewelries and used the money for their daily lives.

51. What is the topic from the text above?

- e. Story of Bawang Merah and Bawang Putih
- f. Bawang Putih, stepmother and stepsister
- g. The life story of Bawang Putih
- h. The kind of Bawang Putih

52. What is the main idea from the text?

- e. Stepmother and stepsister are bad
- f. The patience of Bawang Putih to doing stepmother and stepsister
- g. The kind of Bawang Putih
- h. Unforgettable experience of Bawang Putih and Bawang Merah

53. Bawang Putih was not a greedy girl.

The antonym of greedy girl is....

- e. friendly girl
- f. covetous girl
- g. bad girl
- h. generous girl

54. Look at the paragraph!

Bawang Putih lived with her step mother and her step sister Bawang Merah.<sup>1</sup> Bawang Putih's mother died when she was a baby.<sup>2</sup> Her father

remarried another woman and later her step sister was born.<sup>3</sup>  
Unfortunately, not long after that her father died. Since then, Bawang Putih's life was sad.<sup>4</sup> Her step mother and her step sister treated Bawang Putih badly and always asked her to do all the household chores.<sup>5</sup>

From the paragraph above, what are the supporting sentences?

- e. 1, 2 and 3
- f. 2, 3, 4, and 5
- g. 1 and 5
- h. 1, 4, and 5

55. Finally, what did happen to Bawang Putih?

- e. Bawang Putih forgave their stepmother and stepsister and they were happily.
- f. Stepmother and stepsister are unlucky.
- g. Life of Bawang Putih is bad.
- h. Bawang Putih to be a greedy girl.

Validator,

**Syarifah Sima, S.Pd**  
**NIP: 19750812 200904 2 002**

**APPENDIX 7**  
**ANSWER KEYS**

**(Pre Test before Testing Validity)**

1. B	11. D	21. C
2. A	12. A	22. A
3. C	13. B	23. C
4. A	14. B	24. B
5. A	15. A	25. D
6. D	16. A	26. C
7. A	17. D	27. A
8. A	18. C	28. B
9. B	19. A	29. C
10. B	20. B	30. A

**(Pre Test after Testing Validity)**

1. B	10. A	19. C
2. C	11. B	20. A
3. A	12. B	21. C
4. A	13. A	22. B
5. A	14. A	23. C
6. A	15. D	24. A
7. B	16. C	25. B
8. B	17. A	
9. D	18. B	

**(Post Test before Testing Validity)**

1. B	11. D	21. C
2. B	12. A	22. A
3. A	13. C	23. B
4. A	14. A	24. C
5. D	15. B	25. A
6. B	16. C	26. A
7. A	17. A	27. B
8. C	18. C	28. B
9. A	19. B	29. D
10. A	20. D	30. A

**(Pre Test after Testing Validity)**

1. B	11. C	21. A
2. A	12. A	22. B
3. B	13. A	23. D
4. A	14. C	24. B
5. D	15. C	25. A
6. A	16. B	
7. C	17. D	
8. A	18. B	
9. A	19. C	
10. A	20. A	



## APPENDIX 8

## Validity of Pre Test

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	Xt	Xt²	
1	1	1	0	1	0	1	0	1	1	1	0	1	0	1	0	1	0	0	0	1	1	0	0	0	0	1	0	1	1	1	16	256	
2	0	1	0	1	0	1	1	1	0	0	0	1	1	0	1	0	0	1	0	1	0	0	1	0	1	1	0	1	0	0	14	196	
3	1	1	0	1	0	0	1	1	0	0	0	1	0	0	1	1	1	1	1	0	0	0	1	0	1	0	0	1	0	0	14	196	
4	1	1	1	1	1	0	1	1	1	0	1	1	0	1	0	1	1	1	1	0	1	1	0	1	1	1	1	1	0	0	0	20	400
5	1	1	0	0	1	0	1	1	0	1	0	1	0	1	0	0	1	1	1	0	0	0	0	0	0	0	0	1	1	0	13	169	
6	0	1	0	0	1	0	1	1	0	1	0	0	1	0	0	1	0	0	1	0	0	0	0	1	1	1	0	0	0	1	12	144	
7	0	1	1	0	0	1	0	0	1	1	0	0	0	1	0	1	0	0	1	0	1	0	1	0	0	1	1	0	0	0	12	144	
8	1	1	0	1	1	0	0	1	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	1	0	0	1	1	0	12	144	
9	1	1	0	0	0	1	1	0	1	1	0	0	0	0	0	1	1	0	1	0	0	0	1	0	0	0	1	0	0	0	11	121	
10	0	1	0	0	0	1	1	1	0	0	0	1	1	1	1	0	0	1	0	0	0	1	0	0	0	0	0	1	0	1	12	144	
11	0	0	1	1	1	1	0	1	1	0	1	0	0	0	1	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	10	100	
12	0	0	1	1	1	1	0	1	1	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	9	81	
13	1	1	0	1	1	1	1	1	0	1	0	1	1	0	1	0	1	0	1	0	0	0	1	0	0	0	1	1	1	0	18	324	
14	0	1	0	0	1	0	1	0	0	0	0	1	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	9	81	
15	0	1	1	0	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	8	64	
16	1	1	0	0	0	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	7	49	
17	0	1	1	0	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	8	64	
18	0	1	1	1	0	0	1	1	1	1	0	1	1	0	0	1	0	1	1	1	0	1	0	0	0	1	1	0	1	0	17	289	
19	1	0	1	1	0	1	0	1	1	0	1	0	1	0	1	1	1	0	0	1	1	1	1	1	0	1	1	0	1	1	20	400	
20	1	1	1	1	0	1	1	1	0	1	1	0	1	1	1	1	1	1	0	1	0	1	1	1	1	1	0	0	1	1	23	529	
N =2 0	10	17	9	11	8	13	10	15	10	10	4	11	7	9	8	10	9	8	8	6	5	5	10	4	9	8	6	8	10	7	Σxt = 265	Σxt² = 3895	
P	0.5	0.8	0.4	0.5	0.4	0.6	0.5	0.7	0.5	0.5	0.2	0.5	0.3	0.4	0.4	0.5	0.4	0.4	0.4	0.3	0.2	0.2	0.5	0.2	0.4	0.4	0.3	0.4	0.5	0.3			
Q	1	0.1	1.2	0.8	1.5	0.5	1	0.3	1	1	4	0.8	1.8	1.2	1.5	1	1.2	1.5	1.5	2.3	3	3	1	4	1.2	1.5	2.3	1.5	1	1.8			



**APPENDIX 9 Table Validity of Pre- Test**

Number of Item	$M_p$	$M_t$	$SD_t$	P	Q	$r_{pbi} = \frac{M_p - M_t}{SD_t} \sqrt{\frac{p}{q}}$	$r_t$ on 5% significant	Interpretation
1.	15.40	13.25	4.38	0.5	1	0.343	0.349	Valid
2.	13.29	13.25	4.38	0.8	0.1	0.025	0.349	Invalid
3.	14.11	13.25	4.38	0.4	1.2	0.455	0.349	Valid
4.	15.72	13.25	4.38	0.5	0.8	0.442	0.349	Valid
5.	12.87	13.25	4.38	0.4	1.5	- 0.04	0.349	Invalid
6.	12.92	13.25	4.38	0.6	0.5	- 8.21	0.349	Invalid
7.	15.30	13.25	4.38	0.5	1	0.357	0.349	Valid
8.	14.46	13.25	4.38	0.7	0.3	0.412	0.349	Valid
9.	15.18	13.25	4.38	0.5	1	0.357	0.349	Valid
10.	15.80	13.25	4.38	0.5	1	0.407	0.349	Valid
11.	18.29	13.25	4.38	0.2	4	0.575	0.349	Valid
12.	15.81	13.25	4.38	0.5	0.8	0.409	0.349	Valid
13.	16.57	13.25	4.38	0.3	1.8	0.530	0.349	Valid
14.	16.44	13.25	4.38	0.4	1.2	0.364	0.349	Valid
15.	15.00	13.25	4.38	0.4	1.5	0.350	0.349	Valid
16.	15.70	13.25	4.38	0.5	1	0.391	0.349	Valid
17.	15.33	13.25	4.38	0.4	1.2	0.370	0.349	Valid
18.	15.63	13.25	4.38	0.4	1.5	0.575	0.349	Valid
19.	14.63	13.25	4.38	0.3	1.5	0.525	0.349	Valid
20.	18.00	13.25	4.38	0.2	2.3	0.390	0.349	Valid
21.	15.40	13.25	4.38	0.2	3	0.372	0.349	Valid
22.	18.40	13.25	4.38	0.5	3	0.393	0.349	Valid
23.	14.00	13.25	4.38	0.2	1	0.497	0.349	Valid
24.	18.75	13.25	4.38	0.2	4	0.625	0.349	Valid
25.	13.40	13.25	4.38	0.4	1.2	0.019	0.349	Invalid
26.	16.75	13.25	4.38	0.4	1.5	0.399	0.349	Valid
27.	16.33	13.25	4.38	0.3	2.3	0.389	0.349	Valid
28.	13.50	13.25	4.38	0.4	1.5	0.028	0.349	Invalid
29.	14.40	13.25	4.38	0.5	1	0.434	0.349	Valid
30.	14.14	13.25	4.38	0.3	1.8	0.567	0.349	Valid

# APPENDIX 11

## Validity of Post Test

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	Xt	Xt²	
1	0	1	0	1	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1	0	1	1	0	0	1	0	1	10	100	
2	1	1	0	0	1	0	1	1	0	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	9	81	
3	0	1	1	0	0	1	0	1	1	0	1	1	0	0	1	1	0	1	1	1	1	0	1	0	0	0	1	0	0	1	16	256	
4	1	0	1	1	0	1	1	0	1	1	0	1	1	1	0	1	1	0	1	1	0	1	1	1	0	1	1	1	1	1	22	484	
5	1	1	1	0	0	1	0	1	1	1	1	0	1	1	1	1	1	0	1	1	1	1	1	0	1	1	1	0	1	1	23	529	
6	0	1	0	1	0	0	0	0	0	0	1	0	0	1	0	1	0	1	0	1	1	0	0	1	0	1	0	1	0	0	11	121	
7	1	1	0	1	1	0	1	1	0	1	0	1	0	1	1	0	0	1	0	0	0	1	1	0	1	0	0	0	0	1	15	225	
8	0	1	1	0	1	1	1	0	1	0	1	1	0	1	1	0	1	1	1	0	1	1	0	1	0	1	1	0	1	1	20	400	
9	1	0	1	0	1	1	1	1	0	1	1	1	1	0	1	1	1	0	1	1	1	1	0	1	1	1	1	1	1	1	24	576	
10	0	1	0	1	0	0	1	0	1	1	0	1	1	0	1	1	1	0	1	0	0	0	1	0	0	0	0	1	0	0	13	169	
11	1	0	0	1	0	1	0	1	1	0	1	0	0	1	1	1	0	1	0	1	1	1	0	0	1	1	0	0	1	1	17	289	
12	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0	1	1	1	26	676
13	1	1	1	1	1	1	0	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	28	784	
14	1	0	0	0	0	0	1	0	0	0	1	0	0	1	0	1	1	1	1	1	0	0	1	1	0	0	1	0	0	1	13	169	
15	0	1	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	1	1	12	144	
16	1	0	1	1	0	1	1	0	1	1	1	0	1	1	0	1	1	1	1	1	1	0	0	0	0	1	1	0	1	1	20	400	
17	0	1	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	0	0	1	1	0	1	11	121	
18	1	1	0	0	1	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	6	36	
19	1	1	1	1	0	1	1	1	0	1	0	1	1	1	1	1	0	1	1	1	1	0	1	1	1	1	1	1	1	1	25	625	
20	1	0	1	1	0	1	1	0	1	1	1	0	1	0	1	1	1	1	0	1	0	1	0	1	0	1	1	0	1	1	20	400	
N =2 0	13	14	12	10	8	10	11	10	10	12	12	11	10	11	12	13	13	11	10	12	10	11	10	12	9	14	12	9	11	16	Σxt = 341	Σxt² = 658 5	
P	0. 6	0. 7	0. 6	0. 5	0. 4	0. 6	0. 5	0. 5	0.5	0. 6	0. 6	0. 5	0. 5	0. 5	0. 6	0. 6	0. 5	0. 5	0. 6	0. 5	0. 5	0. 5	0. 6	0. 4	0. 7	0. 6	0. 4	0. 5	0. 8				
Q	0. 5	0. 4	0. 6	1	1. 5	1	0. 8	1	1	0. 6	0. 6	0. 8	1	0. 8	0. 6	0. 5	0. 5	0. 8	1	0. 6	1	0. 8	1	0. 6	1. 2	0. 4	0. 6	1. 2	0. 8	0. 2			

**APPENDIX 12**
**Table Validity of Post- Test**

Number of Item	$M_p$	$M_t$	$SD_t$	P	Q	$r_{pbi} = \frac{M_p - M_t}{SD_t} \sqrt{\frac{p}{q}}$	$r_t$ on 5% significant	Interpretation
1.	19.23	17.05	6.20	0.6	0.5	0.383	0.349	Valid
2.	16.07	17.05	6.20	0.7	0.4	- 0.198	0.349	Invalid
3.	20.58	17.05	6.20	0.6	0.6	0.504	0.349	Valid
4.	18.10	17.05	6.20	0.5	1	0.118	0.349	Invalid
5.	17.25	17.05	6.20	0.4	1.5	0.016	0.349	Invalid
6.	21.50	17.05	6.20	0.5	1	0.502	0.349	Valid
7.	18.81	17.05	6.20	0.5	0.8	0.364	0.349	Valid
8.	19.40	17.05	6.20	0.5	1	0.403	0.349	Valid
9.	20.50	17.05	6.20	0.5	1	0.389	0.349	Valid
10.	19.83	17.05	6.20	0.6	0.6	0.448	0.349	Valid
11.	18.66	17.05	6.20	0.8	0.6	0.388	0.349	Valid
12.	19.27	17.05	6.20	0.5	0.6	0.345	0.349	Valid
13.	21.00	17.05	6.20	0.5	1	0.445	0.349	Valid
14.	19.27	17.05	6.20	0.5	0.8	0.345	0.349	Valid
15.	19.83	17.05	6.20	0.6	0.6	0.448	0.349	Valid
16.	19.84	17.05	6.20	0.6	0.5	0.490	0.349	Valid
17.	18.00	17.05	6.20	0.6	0.5	0.160	0.349	Invalid
18.	1.185	17.05	6.20	0.5	0.8	0.350	0.349	Valid
19.	20.40	17.05	6.20	0.5	1	0.378	0.349	Valid
20.	20.40	17.05	6.20	0.6	0.6	0.540	0.349	Valid
21.	21.00	17.05	6.20	0.5	1	0.445	0.349	Valid
22.	19.60	17.05	6.20	0.5	0.6	0.449	0.349	Valid
23.	19.20	17.05	6.20	0.5	0.8	0.404	0.349	Valid
24.	18.50	17.05	6.20	0.6	1	0.443	0.349	Valid
25.	20.00	17.05	6.20	0.4	0.6	0.370	0.349	Valid
26.	18.70	17.05	6.20	0.7	0.4	0.356	0.349	Valid
27.	19.30	17.05	6.20	0.6	0.6	0.362	0.349	Valid
28.	18.80	17.05	6.20	0.4	1.2	0.159	0.349	Invalid
29.	20.60	17.05	6.20	0.5	0.8	0.452	0.349	Valid
30.	18.80	17.05	6.20	0.8	0.2	0.564	0.349	Valid

# APPENDIX 14

Reliability of Pre Test

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	Xt	Xt²	
1	1	1	0	1	0	1	0	1	1	1	0	1	0	1	0	1	0	0	0	1	1	0	0	0	0	1	0	1	1	1	16	256	
2	0	1	0	1	0	1	1	1	0	0	0	1	1	0	1	0	0	1	0	1	0	0	1	0	1	1	0	1	0	0	14	196	
3	1	1	0	1	0	0	1	1	0	0	0	1	0	0	1	1	1	1	1	0	0	0	1	0	1	0	0	1	0	0	14	196	
4	1	1	1	1	1	0	1	1	1	0	1	1	0	1	0	1	1	1	1	0	1	1	0	1	1	1	1	0	0	0	20	400	
5	1	1	0	0	1	0	1	1	0	1	0	1	0	1	0	0	1	1	1	0	0	0	0	0	0	0	0	1	1	0	13	169	
6	0	1	0	0	1	0	1	1	0	1	0	0	1	0	0	1	0	0	1	0	0	0	0	1	1	1	0	0	0	1	12	144	
7	0	1	1	0	0	1	0	0	1	1	0	0	0	1	0	1	0	0	1	0	1	0	1	0	0	1	1	0	0	0	12	144	
8	1	1	0	1	1	0	0	1	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	1	0	0	1	1	0	12	144	
9	1	1	0	0	0	1	1	0	1	1	0	0	0	0	0	1	1	0	1	0	0	0	1	0	0	0	1	0	0	0	11	121	
10	0	1	0	0	0	1	1	1	0	0	0	1	1	1	1	0	0	1	0	0	0	1	0	0	0	0	0	1	0	1	12	144	
11	0	0	1	1	1	1	0	1	1	0	1	0	0	0	1	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	10	100	
12	0	0	1	1	1	1	0	1	1	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	9	81	
13	1	1	0	1	1	1	1	1	0	1	0	1	1	0	1	0	1	0	1	0	0	0	1	0	0	0	1	1	1	0	18	324	
14	0	1	0	0	1	0	1	0	0	0	0	1	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	9	81	
15	0	1	1	0	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	8	64	
16	1	1	0	0	0	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	7	49	
17	0	1	1	0	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	8	64	
18	0	1	1	1	0	0	1	1	1	1	0	1	1	0	0	1	0	1	1	1	0	1	0	0	0	1	1	0	1	0	17	289	
19	1	0	1	1	0	1	0	1	1	0	1	0	1	0	1	1	1	0	0	1	1	1	1	1	0	1	1	0	1	1	20	400	
20	1	1	1	1	0	1	1	1	0	1	1	0	1	1	1	1	1	1	0	1	0	1	1	1	1	1	0	1	1	23	529		
N =2 0	10	17	9	11	8	13	10	15	10	10	4	11	7	9	8	10	9	8	8	6	5	5	10	4	9	8	6	8	10	7	Σxt = 265	Σxt²= 3895	
P	0.5	0.8	0.4	0.5	0.4	0.6	0.5	0.7	0.5	0.5	0.2	0.5	0.3	0.4	0.4	0.5	0.4	0.4	0.4	0.3	0.2	0.2	0.5	0.2	0.4	0.4	0.3	0.4	0.5	0.3			
Q	1	0.1	1.2	0.8	1.5	0.5	1	0.3	1	1	4	0.8	1.8	1.2	1.5	1	1.2	1.5	1.5	2.3	3	3	3	1	4	1.2	1.5	2.3	1.5	1	1.8		
p.q	0.5	0.08	0.48	0.4	0.6	0.3	0.5	0.21	0.5	0.8	0.4	0.54	0.48	0.6	0.5	0.48	0.6	0.6	0.6	0.69	0.6	0.6	0.5	0.8	0.48	0.6	0.69	0.6	0.5	0.54	Σpq=15.67		

# APPENDIX 15

## Reliability of Post Test

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	Xt	Xt²	
1	0	1	0	1	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1	0	1	1	0	0	1	0	1	10	100	
2	1	1	0	0	1	0	1	1	0	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	9	81	
3	0	1	1	0	0	1	0	1	1	0	1	1	0	0	1	1	0	1	1	1	1	0	1	0	0	0	1	0	0	1	16	256	
4	1	0	1	1	0	1	1	0	1	1	0	1	1	1	0	1	1	0	1	1	0	1	1	1	0	1	1	1	1	1	22	484	
5	1	1	1	0	0	1	0	1	1	1	1	0	1	1	1	1	1	0	1	1	1	1	1	0	1	1	1	0	1	1	23	529	
6	0	1	0	1	0	0	0	0	0	0	1	0	0	1	0	1	0	1	0	1	1	0	0	1	0	1	0	1	0	0	11	121	
7	1	1	0	1	1	0	1	1	0	1	0	1	0	1	1	0	0	1	0	0	0	1	1	0	1	0	0	0	0	0	1	15	225
8	0	1	1	0	1	1	1	0	1	0	1	1	0	1	1	0	1	1	1	0	1	1	0	1	0	1	1	0	1	1	20	400	
9	1	0	1	0	1	1	1	1	0	1	1	1	1	0	1	1	1	0	1	1	1	1	0	1	1	1	1	1	1	1	24	576	
10	0	1	0	1	0	0	1	0	1	1	0	1	1	0	1	1	1	0	1	0	0	0	1	0	0	0	0	1	0	0	13	169	
11	1	0	0	1	0	1	0	1	1	0	1	0	0	1	1	1	0	1	0	1	1	1	0	0	1	1	0	0	1	1	17	289	
12	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0	1	1	1	26	676	
13	1	1	1	1	1	1	0	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	28	784	
14	1	0	0	0	0	0	1	0	0	0	1	0	0	1	0	1	1	1	1	1	0	0	1	1	0	0	1	0	0	1	13	169	
15	0	1	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	1	1	12	144	
16	1	0	1	1	0	1	1	0	1	1	1	0	1	1	0	1	1	1	1	1	1	0	0	0	0	1	1	0	1	1	20	400	
17	0	1	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	0	0	1	1	0	1	11	121	
18	1	1	0	0	1	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	6	36	
19	1	1	1	1	0	1	1	1	0	1	0	1	1	1	1	1	0	1	1	1	1	0	1	1	1	1	1	1	1	1	25	625	
20	1	0	1	1	0	1	1	0	1	1	1	0	1	0	1	1	1	1	0	1	0	1	0	1	0	1	1	0	1	1	20	400	
N =2 0	13	14	12	10	8	10	11	10	10	12	12	11	10	11	12	13	13	11	10	12	10	11	10	12	9	14	12	9	11	16	Σxt = 341	Σxt² = 6585	
P	0. 6	0. 7	0. 6	0. 5	0. 4	0. 6	0. 5	0. 5	0.5	0. 6	0. 6	0. 5	0. 5	0. 5	0. 6	0. 6	0. 6	0. 5	0. 5	0. 6	0. 5	0.5	0. 5	0. 6	0. 4	0. 7	0. 6	0. 4	0. 5	0. 8			
Q	0. 5	0. 4	0. 6	1	1. 5	1	0. 8	1	1	0. 6	0. 6	0. 8	1	0. 8	0. 6	0. 5	0. 5	0. 8	1	0. 6	1	0.8	1	0. 6	1. 2	0. 4	0. 6	1. 2	0. 8	0. 2			
p.q	0. 3	0. 28	0. 36	0. 5	0. 6	0. 6	0. 4	0. 5	0.5	0. 36	0. 36	0. 4	0. 5	0. 4	0. 36	0. 3	0. 3	0. 4	0. 5	0. 36	0. 5	0.4	0. 5	0. 36	0. 48	0. 28	0. 36	0. 48	0. 4	0. 16	Σpq = 12.2		

## APPENDIX 10

Calculation of  $r_{pbi} = \frac{M_p - M_t}{SD_t} \sqrt{\frac{p}{q}}$  in Pre-Test

### A. Calculation of Pre -Test

#### 1. Means score from score total ( $M_t$ )

$$M_t = \frac{\sum X_t}{N}$$

$$M_t = \frac{265}{20} = 13.25$$

#### 2. Standard Deviation ( $SD_t$ )

$$SD_t = \sqrt{\frac{\sum X_t^2}{N} - \left(\frac{\sum X_t}{N}\right)^2}$$

$$SD_t = \sqrt{\frac{3895}{20} - \left(\frac{265}{20}\right)^2}$$

$$SD_t = \sqrt{194.75 - 13.25^2}$$

$$SD_t = \sqrt{194.75 - 175.56} = \sqrt{19.19} = 4.38$$

#### 3. Means Score ( $M_p$ )

Item 1  $M_{p1} = \frac{\text{the total of students score that true item answer}}{n1}$

$$M_{p1} = \frac{16+14+20+13+12+11+18+7+20+23}{10}$$

$$M_{p1} = \frac{154}{10} = 15.40$$

Item 2  $M_{p2} = \frac{\text{the total of students score that answer true item}}{n2}$

$$M_{p2} = \frac{16+14+14+20+13+12+12+12+11+12+18+9+8+7+8+}{17+23}$$

$$M_{p2} = \frac{226}{17} = 13.29$$

Item 3  $M_{p3} = \frac{\text{the total of students score that answer true item}}{n3}$

$$M_{p3} = \frac{20+12+9+20+8+8+17+20}{9+23}$$

$$M_{p3} = \frac{127}{9} = 14.11$$

Item 4  $M_{p4} = \frac{\text{the total of students score that answer true item}}{n4}$

$$M_{p4} = \frac{16+14+14+20+12+10+9+18+17+20+23}{11}$$

$$M_{p4} = \frac{173}{11} = 15.72$$

$$\begin{aligned} \text{Item 5 } M_{p5} &= \frac{\text{the total of students score that answer true item}}{n5} \\ M_{p5} &= \frac{20+13+12+12+10+9+18+9}{8} \\ &= \frac{103}{8} = 12.87 \end{aligned}$$

$$\begin{aligned} \text{Item 6 } M_{p6} &= \frac{\text{the total of students score that answer true item}}{n7} \\ M_{p6} &= \frac{16+14+12+11+12+10+9+18+9+18+8+7+8+20+23}{13} \\ &= \frac{168}{13} = 12.92 \end{aligned}$$

$$\begin{aligned} \text{Item 7 } M_{p7} &= \frac{\text{the total of students score that answer true item}}{n6} \\ M_{p7} &= \frac{14+14+13+12+11+12+18+9+17+23}{10} \\ &= \frac{153}{10} = 15.3 \end{aligned}$$

$$\begin{aligned} \text{Item 8 } M_{p8} &= \frac{\text{the total of students score that answer true item}}{n8} \\ M_{p8} &= \frac{16+14+14+20+13+12+12+12+10+9+18+7+17+20+23}{15} \\ M_{p8} &= \frac{217}{15} = 14.46 \end{aligned}$$

$$\begin{aligned} \text{Item 9 } &= \frac{\text{the total of students score that answer true item}}{n9} \\ M_{p9} &= \frac{16+20+12+11+10+9+8+8+17+20}{10} \\ &= \frac{131}{10} = 13.1 \end{aligned}$$

$$\begin{aligned} \text{Item 10 } M_{p10} &= \frac{\text{the total of students score that answer true item}}{n10} \\ M_{p10} &= \frac{16+13+12+12+11+18+8+8+17+23}{10} \\ M_{p10} &= \frac{158}{10} = 15.8 \end{aligned}$$

$$\begin{aligned} \text{Item 11 } M_{p11} &= \frac{\text{the total of students score that answer true item}}{n11} \\ M_{p11} &= \frac{20+10+20+23}{4} \end{aligned}$$

$$M_{p11} = \frac{73}{4} = 18.29$$

$$\text{Item 12 } M_{p12} = \frac{\text{the total of students score that answer true item}}{n12}$$

$$M_{p12} = \frac{16+14+14+20+13+12+12+18+9+7+17}{11}$$

$$M_{p12} = \frac{152}{11} = 5.81$$

$$\text{Item 13 } M_{p13} = \frac{\text{the total of students score that answer true item}}{n13}$$

$$M_{p13} = \frac{14+12+12+18+17+20+23}{7}$$

$$M_{p13} = \frac{116}{7} = 16.57$$

$$\text{Item 14 } M_{p14} = \frac{\text{the total of students score that answer true item}}{n14}$$

$$M_{p14} = \frac{16+20+13+12+12+9+8+8+23}{9}$$

$$M_{p14} = \frac{121}{9} = 16.44$$

$$\text{Item 15 } M_{p15} = \frac{\text{the total of students score that answer true item}}{n15}$$

$$M_{p15} = \frac{14+14+12+10+9+18+20+23}{8}$$

$$M_{p15} = \frac{120}{8} = 15$$

$$\text{Item 16 } M_{p16} = \frac{\text{the total of students score that answer true item}}{n23}$$

$$M_{p16} = \frac{16+14+20+12+12+12+20+11+17+20+23}{10}$$

$$M_{p16} = \frac{157}{10} = 15.7$$

$$\text{Item 17 } M_{p17} = \frac{\text{the total of students score that answer true item}}{n17}$$

$$M_{p17} = \frac{14+20+13+11+10+9+18+20+23}{9}$$

$$M_{p17} = \frac{138}{9} = 15.33$$

$$\text{Item 18 } M_{p18} = \frac{\text{the total of students score that answer true item}}{n18}$$



$$M_{p18} = \frac{14+14+20+13+12+12+17+23}{8}$$

$$M_{p18} = \frac{125}{8} = 15.63$$

$$\text{Item 19 } M_{p19} = \frac{\text{the total of students score that answer true item}}{n19}$$

$$M_{p19} = \frac{14+20+13+12+12+11+18+17}{8}$$

$$M_{p19} = \frac{117}{8} = 14.63$$

$$\text{Item 20 } M_{p20} = \frac{\text{the total of students score that answer true item}}{n20}$$

$$M_{p20} = \frac{16+14+18+17+20+23}{6}$$

$$M_{p20} = \frac{108}{6} = 18$$

$$\text{Item 21 } M_{p21} = \frac{\text{the total of students score that answer true item}}{n21}$$

$$M_{p21} = \frac{16+20+12+9+20}{5}$$

$$M_{p21} = \frac{77}{5} = 15.4$$

$$\text{Item 22 } M_{p22} = \frac{\text{the total of students score that answer true item}}{n16}$$

$$M_{p22} = \frac{20+12+17+20+23}{5}$$

$$M_{p22} = \frac{92}{5} = 18.4$$

$$\text{Item 23 } M_{p23} = \frac{\text{the total of students score that answer true item}}{n22}$$

$$M_{p23} = \frac{14+14+12+12+11+18+8+8+20+20+23}{10}$$

$$M_{p23} = \frac{140}{10} = 14$$

$$\text{Item 24 } M_{p24} = \frac{\text{the total of students score that answer true item}}{n24}$$

$$M_{p24} = \frac{20+12+20+23}{4}$$

$$M_{p24} = \frac{75}{4} = 18.75$$

$$\text{Item 25 } M_{p25} = \frac{\text{the total of students score that answer true item}}{n25}$$

$$M_{p25} = \frac{14+14+20+12+12+10+9+7+23}{9}$$

$$M_{p25} = \frac{121}{9} = 13.4$$

$$\text{Item 26 } M_{p26} = \frac{\text{the total of students score that answer true item}}{n20}$$

$$M_{p26} = \frac{16+14+20+12+12+17+20+21}{8}$$

$$M_{p26} = \frac{134}{8} = 16.75$$

$$\text{Item 27 } M_{p27} = \frac{\text{the total of students score that answer true item}}{n21}$$

$$M_{p27} = \frac{20+12+11+18+17+20}{6}$$

$$M_{p27} = \frac{98}{6} = 16.33$$

$$\text{Item 28 } M_{p28} = \frac{\text{the total of students score that answer true item}}{n22}$$

$$M_{p28} = \frac{16+14+14+13+12+12+18+9}{8}$$

$$M_{p28} = \frac{108}{8} = 13.5$$

$$\text{Item 29 } M_{p29} = \frac{\text{the total of students score that answer true item}}{n16}$$

$$M_{p29} = \frac{16+13+12+18+9+8+8+17+20+23}{10}$$

$$M_{p29} = \frac{144}{10} = 14.4$$

$$\text{Item 30 } M_{p30} = \frac{\text{the total of students score that answer true item}}{n24}$$

$$M_{p30} = \frac{16+12+12+9+7+20+23}{7}$$

$$M_{p30} = \frac{99}{7} = 14.14$$

**4. Calculation of the Formulation r**

$$r_{pbi} = \frac{M_p - M_t}{SD_t} \sqrt{\frac{p}{q}}$$

$$\text{Item 1} = r_{pbi} = \frac{M_p - M_t}{SD_t} \sqrt{\frac{p}{q}}$$

$$r_{\text{pbi}} = \frac{15.4-13.25}{4.38} \sqrt{\frac{0.5}{1}}$$

$$r = \frac{2.15}{4.38} \sqrt{0.5}$$

$$r = 0.49 \times 0.7 = 0.343$$

$$\text{Item 2 } r_{\text{pbi}} = \frac{14.29-13.25}{4.38} \sqrt{\frac{0.8}{0.1}}$$

$$r = \frac{0.04}{4.38} \sqrt{8}$$

$$r = 0.009 \times 2.82 = 0.025$$

$$\text{Item 3 } r_{\text{pbi}} = \frac{14.11-13.25}{4.38} \sqrt{\frac{0.4}{1.2}}$$

$$r = \frac{0.86}{4.38} \sqrt{0.3}$$

$$r = 0.91 \times 0.5 = 0.455$$

$$\text{Item 4 } r_{\text{pbi}} = \frac{15.72-13.25}{4.38} \sqrt{\frac{0.5}{0.8}}$$

$$r = \frac{2.47}{4.38} \sqrt{0.625}$$

$$r = 0.56 \times 0.7 = 0.442$$

$$\text{Item 5 } r_{\text{pbi}} = \frac{12.87-13.25}{4.38} \sqrt{\frac{0.4}{1.5}}$$

$$r = \frac{-0.38}{4.38} \sqrt{0.26}$$

$$r = -0.086 \times 0.51 = -0.044$$

$$\text{Item 6 } r_{\text{pbi}} = \frac{12.92-13.25}{4.38} \sqrt{\frac{0.6}{0.5}}$$

$$r = \frac{-0.33}{4.38} \sqrt{1.2}$$

$$r = -7.5 \times 1.09 = -8.21$$

$$\text{Item 7 } r_{\text{pbi}} = \frac{15.3-13.25}{4.38} \sqrt{\frac{0.5}{1}}$$

$$r = \frac{2.05}{4.38} \sqrt{0.5}$$

$$r = 0.51 \times 0.7 = 0.357$$

$$\begin{aligned}\text{Item 8 } r_{\text{pbi}} &= \frac{14.46-13.25}{4.38} \sqrt{\frac{0.7}{0.3}} \\ r &= \frac{1.21}{4.38} 2.3 \\ r &= 0.27 \times 1.52 = 0.412\end{aligned}$$

$$\begin{aligned}\text{Item 9 } r_{\text{pbi}} &= \frac{15.10-16.80}{.38} \sqrt{\frac{0.5}{1}} \\ r &= \frac{1.85}{4.38} \sqrt{0.5} \\ r &= 0.51 \times 0.7 = 0.357\end{aligned}$$

$$\begin{aligned}\text{Item 10 } r_{\text{pbi}} &= \frac{15.8-16.80}{4.38} \sqrt{\frac{0.5}{1}} \\ r &= \frac{0.58}{4.38} \sqrt{0.5} \\ r &= 0.58 \times 0.7 = 0.407\end{aligned}$$

$$\begin{aligned}\text{Item 11 } r_{\text{pbi}} &= \frac{18.29-13.25}{4.38} \sqrt{\frac{0.2}{4}} \\ r &= \frac{5.04}{4.38} 0.05 \\ r &= 1.15 \times 2 = 0.575\end{aligned}$$

$$\begin{aligned}\text{Item 12 } r_{\text{pbi}} &= \frac{15.81-13.25}{4.38} \sqrt{\frac{0.5}{2.8}} \\ r &= \frac{2.56}{4.38} \sqrt{0.625} \\ r &= 0.58 \times 0.7 = 0.409\end{aligned}$$

$$\begin{aligned}\text{Item 13 } r_{\text{pbi}} &= \frac{16.57-13.25}{4.38} \sqrt{\frac{0.3}{1.8}} \\ r &= \frac{0.75}{4.38} \sqrt{0.61} \\ r &= 0.75 \times 0.7 = 0.530\end{aligned}$$

$$\begin{aligned}\text{Item 14 } r_{\text{pbi}} &= \frac{186.44-13.25}{4.38} \sqrt{\frac{0.4}{1.2}} \\ r &= \frac{0.72}{4.38} \sqrt{0.33} \\ r &= 0.72 \times 0.7 = 0.364\end{aligned}$$

$$\begin{aligned}\text{Item 15 } r_{\text{pbi}} &= \frac{15-13.25}{4.38} \sqrt{\frac{0.4}{1.5}} \\ r &= \frac{2.27}{4.38} \sqrt{0.33} \\ r &= 0.7 \times 0.5 = 0.350\end{aligned}$$

$$\begin{aligned}\text{Item 16 } r_{\text{pbi}} &= \frac{15.7-13.25}{4.38} \sqrt{\frac{0.5}{1}} \\ r &= \frac{2.45}{4.38} \sqrt{0.5} \\ r &= 0.55 \times 0.7 = 0.391\end{aligned}$$

$$\begin{aligned}\text{Item 17 } r_{\text{pbi}} &= \frac{15.33-13.25}{4.38} \sqrt{\frac{0.4}{1.5}} \\ r &= \frac{0.4}{4.38} \sqrt{0.33} \\ r &= 0.74 \times 0.5 = 0.370\end{aligned}$$

$$\begin{aligned}\text{Item 18 } r_{\text{pbi}} &= \frac{15.63-13.25}{4.38} \sqrt{\frac{0.4}{1.5}} \\ r &= \frac{2.38}{4.38} \sqrt{0.26} \\ r &= 1.15 \times 0.5 = 0.575\end{aligned}$$

$$\begin{aligned}\text{Item 19 } r_{\text{pbi}} &= \frac{14.63-13.25}{4.38} \sqrt{\frac{0.4}{1.5}} \\ r &= \frac{1.38}{4.38} \sqrt{0.26} \\ r &= 1.05 \times 0.5 = 0.525\end{aligned}$$

$$\begin{aligned}\text{Item 20 } r_{\text{pbi}} &= \frac{18-13.25}{4.38} \sqrt{\frac{0.3}{2.3}} \\ r &= \frac{4.75}{4.38} \sqrt{0.13} \\ r &= 1.08 \times 0.3 = 0.390\end{aligned}$$

$$\begin{aligned}\text{Item 21 } r_{\text{pbi}} &= \frac{15.4-13.23}{4.38} \sqrt{\frac{0.2}{3}} \\ r &= \frac{2.15}{4.38} \sqrt{0.06} \\ r &= 1.49 \times 0.25 = 0.372\end{aligned}$$

$$\begin{aligned}\text{Item 22 } r_{\text{pbi}} &= \frac{18.4 - 13.25}{4.38} \sqrt{\frac{0.2}{3}} \\ r &= \frac{5.15}{4.38} \sqrt{0.06} \\ r &= 1.17 \times 0.25 = 0.393\end{aligned}$$

$$\begin{aligned}\text{Item 23 } r_{\text{pbi}} &= \frac{14 - 13.25}{4.38} \sqrt{\frac{0.5}{1}} \\ r &= \frac{0.75}{4.38} \sqrt{0.5} \\ r &= 0.71 \times 0.7 = 0.497\end{aligned}$$

$$\begin{aligned}\text{Item 24 } r_{\text{pbi}} &= \frac{18.75 - 13.25}{4.38} \sqrt{\frac{0.2}{4}} \\ r &= \frac{5.5}{4.38} \sqrt{0.05} \\ r &= 1.25 \times 0.5 = 0.625\end{aligned}$$

$$\begin{aligned}\text{Item 25 } r_{\text{pbi}} &= \frac{13.4 - 13.25}{4.38} \sqrt{\frac{0.4}{1.2}} \\ r &= \frac{0.15}{4.38} \sqrt{0.33} \\ r &= 0.034 \times 0.5 = 0.019\end{aligned}$$

$$\begin{aligned}\text{Item 26 } r_{\text{pbi}} &= \frac{16.75 - 13.25}{4.38} \sqrt{\frac{0.4}{1.5}} \\ r &= \frac{3.5}{4.38} \sqrt{0.26} \\ r &= 0.79 \times 0.5 = 0.399\end{aligned}$$

$$\begin{aligned}\text{Item 27 } r_{\text{pbi}} &= \frac{16.33 - 13.25}{4.38} \sqrt{\frac{0.3}{2.3}} \\ r &= \frac{3.08}{4.38} \sqrt{0.31} \\ r &= 0.70 \times 0.5 = 0.389\end{aligned}$$

$$\begin{aligned}\text{Item 28 } r_{\text{pbi}} &= \frac{13.5 - 13.25}{4.38} \sqrt{\frac{0.4}{1.5}} \\ r &= \frac{0.25}{4.38} \sqrt{0.26} \\ r &= 0.05 \times 0.5 = 0.028\end{aligned}$$

$$\begin{aligned}\text{Item 29 } r_{\text{pbi}} &= \frac{14.4-13.25}{4.38} \sqrt{\frac{0.5}{1}} \\ r &= \frac{1.15}{4.38} \sqrt{0.5} \\ r &= 0.62 \times 0.7 = 0.434\end{aligned}$$

$$\begin{aligned}\text{Item 30 } r_{\text{pbi}} &= \frac{14.14-13.25}{4.38} \sqrt{\frac{0.3}{1.8}} \\ r &= \frac{0.89}{4.38} \sqrt{0.61} \\ r &= 0.81 \times 0.7 = 0.567\end{aligned}$$

## APPENDIX 13

Calculation of  $r_{pbi} = \frac{M_p - M_t}{SD_t} \sqrt{\frac{p}{q}}$  in Post -Test

### B. Calculation of Post-Test

#### 5. Means score from score total ( $M_t$ )

$$M_t = \frac{\sum X_t}{N}$$

$$M_t = \frac{341}{20} = 17.05$$

#### 6. Standard Deviation ( $SD_t$ )

$$SD_t = \sqrt{\frac{\sum X_t^2}{N} - \left(\frac{\sum X_t}{N}\right)^2}$$

$$SD_t = \sqrt{\frac{6585}{20} - \left(\frac{341}{20}\right)^2}$$

$$SD_t = \sqrt{329.25 - 17.05^2}$$

$$SD_t = \sqrt{329.25 - 290.70} = \sqrt{38.55} = 6.20$$

#### 7. Means Score ( $M_p$ )

$$\text{Item 1 } M_{p1} = \frac{\text{the total of students score that true item answer}}{n1}$$

$$M_{p1} = \frac{9+22+23+15+24+17+26+28+15+20+6+25+20}{13}$$

$$M_{p1} = \frac{250}{13} = 19.23$$

$$\text{Item 2 } M_{p2} = \frac{\text{the total of students score that answer true item}}{n2}$$

$$M_{p2} = \frac{10+9+16+23+11+15+20+13+26+28+12+11+6+25}{14}$$

$$M_{p2} = \frac{225}{14} = 16.07$$

$$\text{Item 3 } M_{p3} = \frac{\text{the total of students score that answer true item}}{n3}$$

$$M_{p3} = \frac{10+22+11+15+13+17+28+12+20+28+12+20+11+25+20}{12}$$

$$M_{p3} = \frac{247}{12} = 20.18$$

$$\text{Item 4 } M_{p4} = \frac{\text{the total of students score that answer true item}}{n4}$$

$$M_{p4} = \frac{10+22+11+15+13+17+28+20+25+20}{10}$$



$$M_{p4} = \frac{181}{10} = 18.1$$

$$\begin{aligned} \text{Item 5 } M_{p5} &= \frac{\text{the total of students score that answer true item}}{n5} \\ M_{p5} &= \frac{10+9+15+20+24+26+28+6}{8} \\ &= \frac{138}{8} = 17.25 \end{aligned}$$

$$\begin{aligned} \text{Item 6 } M_{p6} &= \frac{\text{the total of students score that answer true item}}{n7} \\ M_{p6} &= \frac{16+22+23+20+24+17+28+20+25+20}{10} \\ &= \frac{215}{10} = 21.5 \end{aligned}$$

$$\begin{aligned} \text{Item 7 } M_{p7} &= \frac{\text{the total of students score that answer true item}}{n6} \\ M_{p7} &= \frac{9+22+15+20+24+13+26+13+20+25+20}{11} \\ M_{p7} &= \frac{207}{11} = 18.81 \end{aligned}$$

$$\begin{aligned} \text{Item 8 } M_{p8} &= \frac{\text{the total of students score that answer true item}}{n8} \\ M_{p8} &= \frac{9+16+23+15+24+17+26+28+11+25}{10} \\ M_{p8} &= \frac{194}{10} = 19.4 \end{aligned}$$

$$\begin{aligned} \text{Item 9 } M_{p9} &= \frac{\text{the total of students score that answer true item}}{n9} \\ M_{p9} &= \frac{16+22+23+20+13+17+26+28+20+20}{10} \\ &= \frac{205}{10} = 20.5 \end{aligned}$$

$$\begin{aligned} \text{Item 10 } M_{p10} &= \frac{\text{the total of students score that answer true item}}{n10} \\ M_{p10} &= \frac{10+22+23+15+24+13+26+28+12+20+25+20}{12} \\ M_{p10} &= \frac{238}{12} = 19.83 \end{aligned}$$

$$\begin{aligned} \text{Item 11 } M_{p11} &= \frac{\text{the total of students score that answer true item}}{n11} \\ M_{p11} &= \frac{16+23+11+20+24+17+26+28+13+20+6+20}{12} \\ M_{p11} &= \frac{224}{12} = 18.66 \end{aligned}$$

$$\text{Item 12 } M_{p12} = \frac{\text{the total of students score that answer true item}}{n12}$$

$$M_{p12} = \frac{16+22+15+20+24+13+26+28+12+11+25}{11}$$

$$M_{p12} = \frac{212}{11} = 19.27$$

$$\text{Item 13 } M_{p13} = \frac{\text{the total of students score that answer true item}}{n13}$$

$$M_{p13} = \frac{9+22+23+24+13+26+28+20+25}{10}$$

$$M_{p13} = \frac{210}{10} = 21$$

$$\text{Item 14 } M_{p14} = \frac{\text{the total of students score that answer true item}}{n14}$$

$$M_{p14} = \frac{9+22+23+11+15+20+17+26+13+20+25}{11}$$

$$M_{p14} = \frac{201}{11} = 18.27$$

$$\text{Item 15 } M_{p15} = \frac{\text{the total of students score that answer true item}}{n15}$$

$$M_{p15} = \frac{16+23+15+20+24+13+17+26+28+11+25+20}{12}$$

$$M_{p15} = \frac{238}{12} = 19.83$$

$$\text{Item 16 } M_{p16} = \frac{\text{the total of students score that answer true item}}{n23}$$

$$M_{p16} = \frac{16+22+23+11+24+13+17+26+28+13+20+25+20}{13}$$

$$M_{p16} = \frac{258}{13} = 19.84$$

$$\text{Item 17 } M_{p17} = \frac{\text{the total of students score that answer true item}}{n17}$$

$$M_{p17} = \frac{10+9+22+23+20+24+13+26+28+13+20+6+20}{13}$$

$$M_{p17} = \frac{234}{13} = 18$$

$$\text{Item 18 } M_{p18} = \frac{\text{the total of students score that answer true item}}{n18}$$

$$M_{p18} = \frac{16+11+15+20+17+26+28+13+20+25+20}{11}$$

$$M_{p18} = \frac{211}{11} = 19.18$$

$$\text{Item 19 } M_{p19} = \frac{\text{the total of students score that answer true item}}{n19}$$

$$M_{p19} = \frac{16+22+23+20+24+13+28+13+20+25}{10}$$

$$M_{p19} = \frac{204}{10} = 20.4$$

$$\text{Item 20 } M_{p20} = \frac{\text{the total of students score that answer true item}}{n20}$$

$$M_{p20} = \frac{16+22+23+11+24+17+26+28+13+20+25+20}{12}$$

$$M_{p20} = \frac{245}{12} = 20.4$$

$$\text{Item 21 } M_{p21} = \frac{\text{the total of students score that answer true item}}{n21}$$

$$M_{p21} = \frac{16+23+11+20+24+17+26+28+20+25}{10}$$

$$M_{p21} = \frac{210}{10} = 21$$

$$\text{Item 22 } M_{p22} = \frac{\text{the total of students score that answer true item}}{n16}$$

$$M_{p22} = \frac{10+22+23+15+20+24+17+26+28+11+20}{11}$$

$$M_{p22} = \frac{216}{11} = 19.6$$

$$\text{Item 23 } M_{p23} = \frac{\text{the total of students score that answer true item}}{n22}$$

$$M_{p23} = \frac{16+22+23+15+13+26+28+13+11+25}{10}$$

$$M_{p23} = \frac{192}{10} = 19.2$$

$$\text{Item 24 } M_{p24} = \frac{\text{the total of students score that answer true item}}{n24}$$

$$M_{p24} = \frac{10+22+11+20+24+17+26+28+12+25}{12}$$

$$M_{p24} = \frac{222}{12} = 18.8$$

$$\text{Item 25 } M_{p25} = \frac{\text{the total of students score that answer true item}}{n25}$$

$$M_{p25} = \frac{10+23+15+24+17+26+28+12+25}{9}$$

$$M_{p25} = \frac{180}{9} = 20$$

$$\text{Item 26 } M_{p26} = \frac{\text{the total of students score that answer true item}}{n20}$$

$$M_{p26} = \frac{9+22+23+11+20+24+17+26+28+12+20+6+25+20}{14}$$

$$M_{p26} = \frac{263}{14} = 18.7$$

$$\text{Item 27 } M_{p27} = \frac{\text{the total of students score that answer true item}}{n21}$$

$$M_{p27} = \frac{16+22+23+20+24+28+13+12+20+11+25+20}{12}$$

$$M_{p27} = \frac{232}{12} = 19.3$$

$$\text{Item 28 } M_{p28} = \frac{\text{the total of students score that answer true item}}{n22}$$

$$M_{p28} = \frac{10+22+11+24+13+26+28+11+25}{9}$$

$$M_{p28} = \frac{170}{9} = 18.8$$

$$\text{Item 29 } M_{p29} = \frac{\text{the total of students score that answer true item}}{n16}$$

$$M_{p29} = \frac{22+23+20+24+17+26+28+12+20+25+20}{11}$$

$$M_{p29} = \frac{227}{11} = 20.6$$

$$\text{Item 30 } M_{p30} = \frac{\text{the total of students score that answer true item}}{n24}$$

$$M_{p30} = \frac{10+16+22+23+15+20+24+17+26+28+13+12+20+11+25+20}{16}$$

$$M_{p30} = \frac{302}{16} = 18.8$$

**8. Calculation of the Formulation r**

$$r_{pbi} = \frac{M_p - M_t}{SD_t} \sqrt{\frac{p}{q}}$$

$$\text{Item 1} = r_{pbi} = \frac{M_p - M_t}{SD_t} \sqrt{\frac{p}{q}}$$

$$r_{\text{pbi}} = \frac{19.23-17.05}{6.20} \sqrt{\frac{0.6}{0.5}}$$

$$r = \frac{2.18}{6.20} \sqrt{1.2}$$

$$r = 0.35 \times 1.09 = 0.383$$

Item 2  $r_{\text{pbi}} = \frac{16.07-17.05}{6.20} \sqrt{\frac{0.7}{0.4}}$

$$r = \frac{-0.15}{6.20} \sqrt{1.75}$$

$$r = -0.15 \times 21.32 = -0.198$$

Item 3  $r_{\text{pbi}} = \frac{20.18-17.05}{6.20} \sqrt{\frac{0.6}{0.6}}$

$$r = \frac{03.13}{6.20} \sqrt{1}$$

$$r = 0.5041 \times 1 = 0.504$$

Item 4  $r_{\text{pbi}} = \frac{18.1-17.05}{6.20} \sqrt{\frac{0.5}{1}}$

$$r = \frac{1.05}{6.20} \sqrt{0.5}$$

$$r = 0.169 \times 0.7 = 0.118$$

Item 5  $r_{\text{pbi}} = \frac{17.25-17.05}{6.20} \sqrt{\frac{0.4}{1.5}}$

$$r = \frac{0.2}{4.38} \sqrt{0.26}$$

$$r = 0.032 \times 0.51 = 0.016$$

Item 6  $r_{\text{pbi}} = \frac{21.5-17.05}{6.20} \sqrt{\frac{0.5}{1}}$

$$r = \frac{4.45}{6.20} \sqrt{0.5}$$

$$r = 0.71 \times 0.7 = 0.502$$

Item 7  $r_{\text{pbi}} = \frac{18.81-17.05}{6.20} \sqrt{\frac{0.7}{0.4}}$

$$r = \frac{1.76}{6.20} \sqrt{0.625}$$

$$r = 0.28 \times 1.32 = 0.364$$

$$\begin{aligned}\text{Item 8 } r_{\text{pbi}} &= \frac{19.4-17.05}{6.20} \sqrt{\frac{0.6}{0.5}} \\ r &= \frac{2.35}{6.20} \sqrt{1.2} \\ r &= 0.37 \times 1.09 = 0.403\end{aligned}$$

$$\begin{aligned}\text{Item 9 } r_{\text{pbi}} &= \frac{20.5-17.05}{6.20} \sqrt{\frac{0.5}{1}} \\ r &= \frac{3.45}{6.20} \sqrt{0.5} \\ r &= 0.55 \times 0.7 = 0.389\end{aligned}$$

$$\begin{aligned}\text{Item 10 } r_{\text{pbi}} &= \frac{19.83-17.05}{6.20} \sqrt{\frac{0.6}{0.6}} \\ r &= \frac{2.78}{6.20} \sqrt{1} \\ r &= 0.448 \times 1 = 0.448\end{aligned}$$

$$\begin{aligned}\text{Item 11 } r_{\text{pbi}} &= \frac{18.66-17.05}{6.20} \sqrt{\frac{0.8}{0.6}} \\ r &= \frac{1.61}{6.20} \sqrt{1.3} \\ r &= 0.259 \times 1.5 = 0.388\end{aligned}$$

$$\begin{aligned}\text{Item 12 } r_{\text{pbi}} &= \frac{19.27-17.05}{6.20} \sqrt{\frac{0.5}{0.6}} \\ r &= \frac{2.22}{6.20} \sqrt{0.83} \\ r &= 0.358 \times 0.91 = 0.345\end{aligned}$$

$$\begin{aligned}\text{Item 13 } r_{\text{pbi}} &= \frac{21-17.05}{6.20} \sqrt{\frac{0.5}{1}} \\ r &= \frac{3.95}{6.20} \sqrt{0.5} \\ r &= 0.637 \times 0.7 = 0.445\end{aligned}$$

$$\begin{aligned}\text{Item 14 } r_{\text{pbi}} &= \frac{19.27-17.05}{6.20} \sqrt{\frac{0.5}{0.8}} \\ r &= \frac{2.22}{6.20} \sqrt{0.625} \\ r &= 0.358 \times 0.91 = 0.345\end{aligned}$$

$$\begin{aligned}\text{Item 15 } r_{\text{pbi}} &= \frac{19.83-17.05}{6.20} \sqrt{\frac{0.6}{0.6}} \\ r &= \frac{2.78}{6.20} \sqrt{1} \\ r &= 0.448 \times 0.5 = 0.448\end{aligned}$$

$$\begin{aligned}\text{Item 16 } r_{\text{pbi}} &= \frac{19.84-17.05}{6.20} \sqrt{\frac{0.6}{0.5}} \\ r &= \frac{2.79}{6.20} \sqrt{1.2} \\ r &= 0.45 \times 1.09 = 0.490\end{aligned}$$

$$\begin{aligned}\text{Item 17 } r_{\text{pbi}} &= \frac{18-17.05}{6.20} \sqrt{\frac{0.6}{0.5}} \\ r &= \frac{0.95}{6.20} \sqrt{1.2} \\ r &= 0.15 \times 1.09 = 0.16\end{aligned}$$

$$\begin{aligned}\text{Item 18 } r_{\text{pbi}} &= \frac{19.18-17.05}{6.20} \sqrt{\frac{0.5}{0.5}} \\ r &= \frac{2.13}{6.20} \sqrt{1} \\ r &= 0.35 \times 1 = 0.350\end{aligned}$$

$$\begin{aligned}\text{Item 19 } r_{\text{pbi}} &= \frac{20.4-17.05}{6.20} \sqrt{\frac{0.5}{1}} \\ r &= \frac{3.35}{6.20} \sqrt{0.5} \\ r &= 0.54 \times 0.7 = 0.378\end{aligned}$$

$$\begin{aligned}\text{Item 20 } r_{\text{pbi}} &= \frac{20.4-17.05}{6.20} \sqrt{\frac{0.6}{0.6}} \\ r &= \frac{3.35}{6.20} \sqrt{1} \\ r &= 0.54 \times 1 = 0.540\end{aligned}$$

$$\begin{aligned}\text{Item 21 } r_{\text{pbi}} &= \frac{21-17.05}{6.20} \sqrt{\frac{0.5}{1}} \\ r &= \frac{3.95}{6.20} \sqrt{0.5} \\ r &= 0.63 \times 0.7 = 0.445\end{aligned}$$

$$\begin{aligned}\text{Item 22 } r_{\text{pbi}} &= \frac{19.6 - 17.05}{6.20} \sqrt{\frac{0.5}{0.8}} \\ r &= \frac{2.55}{6.20} \sqrt{0.625} \\ r &= 0.41 \times 0.79 = 0.449\end{aligned}$$

$$\begin{aligned}\text{Item 23 } r_{\text{pbi}} &= \frac{19.2 - 17.05}{6.20} \sqrt{\frac{0.5}{1}} \\ r &= \frac{2.51}{6.20} \sqrt{0.5} \\ r &= 0.404 \times 1 = 0.404\end{aligned}$$

$$\begin{aligned}\text{Item 24 } r_{\text{pbi}} &= \frac{18.8 - 17.05}{6.20} \sqrt{\frac{0.6}{0.6}} \\ r &= \frac{2.75}{6.20} \sqrt{1} \\ r &= 0.443 \times 1 = 0.443\end{aligned}$$

$$\begin{aligned}\text{Item 25 } r_{\text{pbi}} &= \frac{20 - 17.05}{6.20} \sqrt{\frac{0.4}{1.2}} \\ r &= \frac{2.95}{6.20} \sqrt{0.33} \\ r &= 0.475 \times 0.57 = 0.370\end{aligned}$$

$$\begin{aligned}\text{Item 26 } r_{\text{pbi}} &= \frac{18.7 - 17.05}{6.20} \sqrt{\frac{0.7}{0.4}} \\ r &= \frac{1.65}{6.20} \sqrt{1.75} \\ r &= 0.27 \times 1.32 = 0.356\end{aligned}$$

$$\begin{aligned}\text{Item 27 } r_{\text{pbi}} &= \frac{19.3 - 17.05}{6.20} \sqrt{\frac{0.6}{0.6}} \\ r &= \frac{2.25}{6.20} \sqrt{1} \\ r &= 0.362 \times 1 = 0.362\end{aligned}$$

$$\begin{aligned}\text{Item 28 } r_{\text{pbi}} &= \frac{18.8 - 17.05}{6.20} \sqrt{\frac{0.4}{1.2}} \\ r &= \frac{0.75}{6.20} \sqrt{0.3} \\ r &= 0.28 \times 0.57 = 0.157\end{aligned}$$



$$\begin{aligned}\text{Item 29 } r_{\text{pbi}} &= \frac{20.6-17.05}{6.20} \sqrt{\frac{0.5}{0.8}} \\ r &= \frac{3.55}{6.20} \sqrt{0.625} \\ r &= 0.57 \times 0.79 = 0.452\end{aligned}$$

$$\begin{aligned}\text{Item 30 } r_{\text{pbi}} &= \frac{18.8-17.05}{6.20} \sqrt{\frac{0.8}{0.2}} \\ r &= \frac{1.75}{6.20} \sqrt{4} \\ r &= 0.28 \times 2 = 0.564\end{aligned}$$

## APPENDIX 16

### Calculation Reliability of Pre test

$$R_{11} = \left( \frac{n}{n-1} \right) \left( \frac{S_{t^2} - \sum pq}{S_{t^2}} \right)$$

$$N = 20$$

$$\sum X_t = 265$$

$$\sum X_t^2 = 3895$$

$$\sum pq = 15.67$$

$$\begin{aligned} S_t^2 &= \sum X_t^2 - \left( \frac{\sum X_t}{N} \right)^2 \\ &= 3895 - \left( \frac{265}{20} \right)^2 = 3895 - 13.25^2 = 3895 - 175.56 = 3719.44 \end{aligned}$$

$$S_t^2 = \frac{\sum X_t^2}{N} = \frac{3719.44}{20}$$

$$S_t^2 = 185.97$$

$$R_{11} = \left( \frac{n}{n-1} \right) \left( \frac{S_{t^2} - \sum pq}{S_{t^2}} \right)$$

$$\begin{aligned} R_{11} &= \left( \frac{20}{20-1} \right) \left( \frac{185.97 - 15.67}{185.97} \right) = \left( \frac{20}{19} \right) \left( \frac{170.30}{185.97} \right) \\ &= (1.05) (0.91) \\ &= 0.95 \\ &= 0.95 (r_{11} > 0.70 = \text{reliable}) \end{aligned}$$

## APPENDIX 17

### Calculation Reliability of Post Test

$$R_{11} = \left( \frac{n}{n-1} \right) \left( \frac{S_{t^2} - \sum pq}{S_{t^2}} \right)$$

$$N = 20$$

$$\sum X_t = 341$$

$$\sum X_t^2 = 6585$$

$$\sum pq = 12.2$$

$$\begin{aligned} S_t^2 &= \sum X_t^2 - \left( \frac{\sum X_t}{N} \right)^2 \\ &= 6585 - \left( \frac{341}{20} \right)^2 = 6585 - 17.05^2 = 6585 - 290.70 = 6294.3 \end{aligned}$$

$$S_t^2 = \frac{\sum X_t^2}{N} = \frac{6294.3}{20}$$

$$S_t^2 = 314.71$$

$$R_{11} = \left( \frac{n}{n-1} \right) \left( \frac{S_{t^2} - \sum pq}{S_{t^2}} \right)$$

$$\begin{aligned} R_{11} &= \left( \frac{20}{20-1} \right) \left( \frac{341.71 - 12.2}{341.71} \right) = \left( \frac{20}{19} \right) \left( \frac{302.5}{342.71} \right) \\ &= (1.05) (0.96) \\ &= 1.008 \\ &= 1.008 \text{ (} r_{11} > 0.70 = \text{reliable)} \end{aligned}$$

## APPENDIX 18

### THE SCORE OF EXPERIMENTAL GROUP

No.	Name	Pre Test	Post Test	$X_1$	$X_1^2$
1	Akmal Saleh	52	84	32	1024
2	Ali Marzuki	52	80	28	784
3	Alwi Syahrin	52	76	24	576
4	Alya Dina	44	72	28	784
5	Anggi Kurnia Putri	52	80	28	784
6	Anggi Pratama	48	60	12	144
7	Ardiansyah	48	68	20	400
8	Arsy Wulandari	72	92	20	400
9	Azah Sinta Nuri	40	60	20	400
10	Bahroin	48	72	24	576
11	Enni Safitri	48	68	20	400
12	Erwinsyah Putra	44	68	24	576
13	Khoiron Yusra	44	60	16	256
14	Pinta Riski Nst	72	88	16	256
15	Putri Agustina	44	72	28	784
16	Ridwan Harta	44	88	44	1936
17	Riski Yanti	44	72	28	784
18	Sangkot Btr	68	72	4	16
19	Siti Aminah	48	80	32	1024
20	Suci Sari Ramadhani	48	72	24	576
21	Ummul Mawaddah	68	72	4	16
22	Yusni Fadilah	52	80	28	784
Total				532	13280

**APPENDIX 19****THE SCORE OF CONTROL GROUP**

<b>No.</b>	<b>Name</b>	<b>Pre Test</b>	<b>Post Test</b>	<b><math>Y_1</math></b>	<b><math>Y_1^2</math></b>
1	Abdillah Hanif	60	64	4	16
2	Abdul Basid	60	60	0	0
3	Ahmad Asroni	68	68	0	0
4	Angga Pratama	60	60	0	0
5	Anisah Fitri	44	64	20	400
6	Ditha Angraeni	40	60	20	400
7	Fatimah Zahra	76	88	12	144
8	Hapipah Hsb	40	52	12	144
9	Hesron Mikael	72	80	8	64
10	Indah Sari Nst	52	60	8	64
11	Indah Hsb	68	72	4	16
12	Khoiron Yusro	60	60	0	0
13	Marzuki Muhammad	52	68	16	256
14	Muhammad Maqrub	72	84	12	144
15	Nur Azizah	60	52	-8	64
16	Rahmad Hidayat	40	60	20	400
17	Roberto Sabar Siburian	60	52	-8	64
18	Saputra Adison	44	60	16	256
19	Winda Angreini	72	80	8	64
Total				144	2496

## APPENDIX 20

### Score Pre test Experimental Class

1. The score of pre-test in experimental class

No.	Name	Score
1	Akmal Saleh	52
2	Ali Marzuki	52
3	Alwi Syahrin	52
4	Alya Dina	44
5	Anggi Kurnia Putri	52
6	Anggi Pratama	48
7	Ardiansyah	48
8	Arsy Wulandari	72
9	Azah Sinta Nuri	40
10	Bahroin	48
11	Enni Safitri	48
12	Erwinsyah Putra	44
13	Khoiron Yusra	44
14	Pinta Riski Nst	72
15	Putri Agustina	44
16	Ridwan Harta	44
17	Riski Yanti	44
18	Sangkot Btr	68
19	Siti Aminah	48
20	Suci Sari Ramadhani	48
21	Ummul Mawaddah	68
22	Yusni Fadilah	52

2. High = 72

Low = 40

Range = High – Low

$$= 72 - 40$$

$$= 32$$

3. Total of Classes =  $1 + 3,3 \log (n)$   
=  $1 + 3,3 \log (22)$

$$= 1 + 3,3 (1,34)$$

$$= 1 + 4.42$$

$$= 5.42 \Rightarrow 5$$

$$4. \text{ Interval} = \frac{\text{range}}{\text{total of class}} = \frac{32}{5} = 6.4 \Rightarrow 6$$

Interval Class	Fi
40 – 45	6
46 – 51	7
52 – 57	5
58 – 63	0
64 – 69	2
70 – 75	2
<i>i</i> = 6	22

#### 5. Median

No	Interval of Classes	F	Fk
1	40 – 45	6	6
2	46 - 51	7	13
3	52 - 57	5	18
4	58 - 63	0	18
5	64 - 69	2	20
6	70 – 75	2	22

$$Me = Bb + i \left( \frac{\frac{n}{2} - F}{fm} \right)$$

Me = Median

Bb = Low limit of the interval median conceives Me

F<sub>m</sub> = Frequency of class conceives Me

F = Frequency of cumulative before interval of classes conceives Me

i = Length of classes

n = Total of sample

Position of Me in the interval of classes is experimental, as follow:

B<sub>b</sub> = 45.5

F = 6

f<sub>m</sub> = 7

i = 5

n = 22

1/2n = 11

So :

$$\begin{aligned} \text{Me} &= B_b + i \left( \frac{\frac{n}{2} - F}{f_m} \right) \\ &= 45.5 + 5 \left( \frac{11 - 6}{7} \right) \\ &= 45.5 + 5(0.7) \\ &= 45.5 + 3.5 \\ &= 49 \end{aligned}$$

6. Modus

No	Interval of Classes	F	F <sub>k</sub>
1	40 – 45	6	6
2	46 - 51	7	13
3	52 - 57	5	18
4	58 - 63	0	18
5	64 - 69	2	20
6	70 - 75	2	22



$$M_o = L + \frac{d_1}{d_1 + d_2} i$$

$$L = 45.5$$

$$d_1 = 7 - 6 = 1$$

$$d_2 = 7 - 5 = 2$$

$$i = 5$$

$$\begin{aligned} M_o &= 45.5 + \frac{1}{1+2} 5 \\ &= 45.5 + 0.33(5) \\ &= 45.5 + 1.65 \\ &= 47.15 \end{aligned}$$

Table For Finding Mean, Variants, and Standard Deviation of Experiment Class in Pre Test

No	Xi	Fi	FiXi	Xi <sup>2</sup>	FiXi <sup>2</sup>
1	40	6	240	1600	9600
2	46	7	322	2116	14812
3	52	5	260	2704	13520
4	58	0	0	3364	0
5	64	2	128	4096	8192
6	70	2	140	8100	16200
	Total	22	1090	-	62324

#### 7. Mean

$$\begin{aligned} \bar{X} &= \frac{\sum FiXi}{\sum Fi} \\ \bar{X} &= \frac{1090}{22} = 49 \end{aligned}$$

#### 8. Varian

The variant is:

$$\begin{aligned} (S^2) &= \frac{N \times \sum FiXi^2 - (\sum FiXi)^2}{N(N-1)} \\ (S^2) &= \frac{22 \times 62324 - (1090)^2}{22(22-1)} \end{aligned}$$

$$(S^2) = \frac{1371128 - 1188100}{22(21)}$$

$$(S^2) = \frac{183028}{462}$$

$$(S^2) = 19.90$$

9. Standard deviation

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

$$S = \sqrt{19.90}$$

$$S = 4.46$$

## APPENDIX 21

### Score Pre test

### Control Class

#### 1. The score of pre-test in control class

No.	Name	Score
1	Abdillah Hanif	60
2	Abdul Basid	60
3	Ahmad Asroni	68
4	Angga Pratama	60
5	Anisah Fitri	44
6	Ditha Angraeni	40
7	Fatimah Zahra	76
8	Hapipah Hsb	40
9	Hesron Mikael	72
10	Indah Sari Nst	52
11	Indah Hsb	68
12	Khoiron Yusro	60
13	Marzuki Muhammad	52
14	Muhammad Maqrub	72
15	Nur Azizah	60
16	Rahmad Hidayat	40
17	Roberto Sabar Siburian	60
18	Saputra Adison	44
19	Winda Angreini	72

2. High = 76

Low = 40

Range = High – Low

= 76 – 40

= 36

3. Total of Classes =  $1 + 3,3 \log (n)$   
=  $1 + 3,3 \log (19)$

=  $1 + 3,3 ( 1.27)$

=  $1 + 4.21$

=  $5.21 \Rightarrow 5$

4. Interval  $= \frac{\text{range}}{\text{total of class}} = \frac{36}{5} = 7$

Interval Class	Fi
40 – 46	5
47 – 53	2
54 – 60	6
61 – 67	0
68 – 74	5
75 – 81	1
<i>i</i> = 7	19

#### 5. Median

No	Interval of Classes	F	Fk
1	40 – 46	5	5
2	47 - 53	2	7
3	54 - 67	6	13
4	61 - 67	0	13
5	68 - 74	5	18
6	75 – 81	1	19

$$\text{Me} = \text{Bb} + i \left( \frac{\frac{n}{2} - F}{f_m} \right)$$

Me = Median

Bb = Low limit of the interval median conceives Me

Fm = Frequency of class conceives Me

F = Frequency of cumulative before interval of classes conceives Me

i = Length of classes

n = Total of sample

Position of Me in the interval of classes is experimental, as follow:

$$\begin{aligned} Bb &= 53.5 \\ F &= 7 \\ fm &= 13 \\ i &= 7 \\ n &= 19 \\ 1/2n &= 9.5 \end{aligned}$$

So :

$$\begin{aligned} Me &= Bb + i \left( \frac{\frac{n}{2} - F}{fm} \right) \\ &= 53.5 + 7 \left( \frac{9.5 - 7}{13} \right) \\ &= 53.5 + 7 (0.19) \\ &= 53.5 + 1.34 \\ &= 54.84 \end{aligned}$$

## 6. Modus

No	Interval of Classes	F	Fk
1	40 – 46	5	5
2	47 - 53	2	7
3	54 - 60	6	13
4	61 - 67	0	13
5	68 - 74	5	18
6	75 – 81	1	19

$$M_o = L + \frac{d_1}{d_1 + d_2} i$$

$$L = 53.5$$

$$d_1 = 6 - 2 = 4$$

$$d_2 = 6 - 0 = 6$$

$$i = 7$$

$$\begin{aligned} M_o &= 53.5 + \frac{4}{4+6} 7 \\ &= 53.5 + 0.4 (7) \\ &= 53.5 + 2.8 \\ &= 56.3 \end{aligned}$$

Table For Finding Mean, Variants, and Standard Deviation of Control Class in Pre Test

No	Xi	Fi	FiXi	Xi <sup>2</sup>	FiXi <sup>2</sup>
1	43	5	215	1849	9245
2	50	2	100	2500	5000
3	57	6	342	3249	19494
4	64	0	0	4996	0
5	71	5	355	5041	25205
6	78	1	78	6084	6084
	Total	19	1090	-	65028

7. Mean

$$\begin{aligned} \bar{X} &= \frac{\sum FiXi}{\sum Fi} \\ \bar{X} &= \frac{\sum FiXi}{\sum Fi} = \frac{1090}{19} = 57.36 \end{aligned}$$

8. Varian

The variant is:

$$(S^2) = \frac{N \times \sum FiXi^2 - (\sum FiXi)^2}{N (N-1)}$$

$$(S^2) = \frac{19 \times 65028 - (1090)^2}{19 (19-1)}$$

$$(S^2) = \frac{1235532 - 1188100}{19(18)}$$

$$(S^2) = \frac{47432}{342}$$

$$(S^2) = 138.69$$

9. Standard deviation

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

$$S = \sqrt{138.69}$$

$$S = 11.77$$

## APPENDIX 22

### Score Post test Experimental Class

#### 1. The score of post-test in experimental class

No.	Name	Score
1	Akmal Saleh	84
2	Ali Marzuki	80
3	Alwi Syahrin	76
4	Alya Dina	72
5	Anggi Kurnia Putri	80
6	Anggi Pratama	60
8	Ardiansyah	68
9	Arsy Wulandari	92
10	Azah Sinta Nuri	60
11	Bahroin	72
12	Enni Safitri	68
13	Erwinsyah Putra	68
14	Khoiron Yusra	60
15	Pinta Riski Nst	88
16	Putri Agustina	72
17	Ridwan Harta	88
18	Riski Yanti	72
19	Sangkot Btr	72
20	Siti Aminah	80
21	Suci Sari Ramadhani	72
22	Yusni Fadilah	80

2. High = 92

Low = 60

Range = High – Low

= 92 – 60

= 32

3. Total of Classes =  $1 + 3,3 \log (n)$

=  $1 + 3,3 \log (22)$

=  $1 + 3,3 ( 1,34)$



$$= 1 + 4.42$$

$$= 5.42$$

$$4. \text{ Interval} = \frac{\text{range}}{\text{total of class}} = \frac{32}{5} = 6$$

Interval Class	Fi
60 – 65	3
66 – 71	3
72 – 77	8
78 – 83	4
84 – 89	3
90 – 95	1
<i>i</i> = 6	22

#### 5. Median

No	Interval of Classes	F	Fk
1	60 – 65	3	3
2	66 - 71	3	6
3	72 - 77	8	14
4	78 - 83	4	18
5	84 - 89	3	21
6	90 – 95	1	22

$$\text{Me} = \text{Bb} + i \left( \frac{\frac{n}{2} - F}{fm} \right)$$

Me = Median

Bb = Low limit of the interval median conceives Me

Fm = Frequency of class conceives Me

F = Frequency of cumulative before interval of classes conceives Me

i = Length of classes

n = Total of sample

Position of Me in the interval of classes is experimental, as follow:

Bb = 71.5

F = 6

fm = 14

i = 6

n = 22

1/2n = 11

So :

$$Me = Bb + i \left( \frac{\frac{n}{2} - F}{fm} \right)$$

$$= 71.5 + 6 \left( \frac{11 - 6}{14} \right)$$

$$= 71.5 + 6 (0.35)$$

$$= 71.5 + 2.14$$

$$= 73.64$$

## 6. Modus

No	Interval of Classes	F	Fk
1	60 – 65	3	3
2	66 - 71	3	6
3	72 - 77	8	14
4	78 – 83	4	18
5	84 - 89	3	21
6	90 – 95	1	22

$$M_o = L + \frac{d_1}{d_1 + d_2} i$$

$$L = 71.5$$

$$d_1 = 8 - 3 = 5$$

$$d_2 = 8 - 4 = 4$$

$$i = 6$$

$$M_o = 71.5 + \frac{5}{5+4} 6$$

$$= 71.5 + 0.5(6)$$

$$= 71.5 + 3.3$$

$$= 74.83$$

Table For Finding Mean, Variants, and Standard Deviation of Control Class  
in Post Test

No	Xi	Fi	FiXi	Xi <sup>2</sup>	FiXi <sup>2</sup>
1	60	3	180	3600	10800
2	66	3	198	4356	13068
3	72	8	576	5184	41472
4	78	4	312	6084	24336
5	84	3	252	7056	21168
6	90	1	90	8100	8100
	Total	22	1608	-	118944

#### 7. Mean

$$\bar{X} = \frac{\sum FiXi}{Fi}$$

$$\bar{X} = \frac{\sum FiXi}{Fi} = \frac{1608}{22} = 73.09$$

#### 8. Varian

The variant is;

$$(S^2) = \frac{N \times \sum FiXi^2 - (\sum FiXi)^2}{N(N-1)}$$

$$(S^2) = \frac{22 \times 118944 - (1608)^2}{22(22-1)}$$

$$(S^2) = \frac{2616768 - 2585664}{22(21)}$$

$$(S^2) = \frac{31104}{462}$$

$$(S^2) = 67.32$$

9. Standard deviation

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

$$S = \sqrt{67.32}$$

$$S = 8.2$$

## APPENDIX 23

### Score Post test

#### Control Class

1. The score of post-test in control class

No.	Name	Score
1	Abdillah Hanif	64
2	Abdul Basid	60
3	Ahmad Asroni	68
4	Angga Pratama	60
5	Anisah Fitri	64
6	Ditha Angraeni	60
7	Fatimah Zahra	88
8	Hapipah Hsb	52
9	Hesron Mikael	80
10	Indah Sari Nst	60
11	Indah Hsb	72
12	Khoiron Yusro	60
13	Marzuki Muhammad	68
14	Muhammad Maqrub	84
15	Nur Azizah	52
16	Rahmad Hidayat	60
17	Roberto Sabar Siburian	52
18	Saputra Adison	60
19	Winda Angreini	80

2. High = 88

Low = 52

Range = High – Low

= 88 – 52

= 36

3. Total of Classes =  $1 + 3,3 \log (n)$   
=  $1 + 3,3 \log (19)$   
=  $1 + 3,3 ( 1.27)$   
=  $1 + 4.21$   
=  $5.21 \Rightarrow 5$

4. Interval  $= \frac{\text{range}}{\text{total of class}} = \frac{36}{5} = 7$

Interval Class	Fi
52 – 58	3
59 – 65	9
66 – 72	3
73 – 79	0
80 – 86	3
87 – 93	1
<i>i</i> = 7	19

#### 5. Median

No	Interval of Classes	F	Fk
1	52 – 58	3	3
2	59 - 65	9	12
3	66 - 72	3	15
4	73 - 79	0	15
5	80 - 86	3	18
6	87 – 93	1	19

$$\text{Me} = \text{Bb} + i \left( \frac{\frac{n}{2} - F}{fm} \right)$$

Me = Median

Bb = Low limit of the interval median conceives Me

Fm = Frequency of class conceives Me

F = Frequency of cumulative before interval of classes conceives Me

i = Length of classes

n = Total of sample

Position of Me in the interval of classes is experimental, as follow:

$$Bb = 58.5$$

$$F = 12$$

$$fm = 15$$

$$i = 7$$

$$n = 19$$

$$1/2n = 9.5$$

So :

$$Me = Bb + i \left( \frac{n/2 - F}{fm} \right)$$

$$= 58.5 + 7 \left( \frac{9.5 - 12}{15} \right)$$

$$= 58.5 + 7 (-0.16)$$

$$= 58.5 + (-1.16)$$

$$= 57.33$$

## 6. Modus

No	Interval of Classes	F	Fk
1	52 – 58	3	3
2	59 - 65	9	12
3	66 - 72	3	15
4	73 - 79	0	15
5	80 - 86	3	18
6	87 – 93	1	19

$$M_o = L + \frac{d_1}{d_1 + d_2} i$$

$$L = 58.5$$

$$d_1 = 9 - 3 = 6$$

$$d_2 = 9 - 3 = 6$$

$$i = 7$$

$$\begin{aligned} M_o &= 58.5 + \frac{6}{6+6} 7 \\ &= 58.5 + 0.5(7) \\ &= 58.5 + 3.5 \\ &= 62 \end{aligned}$$

Table For Finding Mean, Variants, and Standard Deviation of Control Class in Pre Test

No	Xi	Fi	FiXi	Xi <sup>2</sup>	FiXi <sup>2</sup>
1	55	3	165	3025	9075
2	62	9	558	3844	34596
3	69	3	207	4761	14283
4	76	0	0	5776	0
5	83	3	249	6889	20667
6	90	1	90	8100	8100
	Total	19	1269	-	86721

7. Mean

$$\begin{aligned} \bar{X} &= \frac{\sum FiXi}{\sum Fi} \\ \bar{X} &= \frac{\sum FiXi}{\sum Fi} = \frac{1269}{19} = 66.78 \end{aligned}$$

8. Varian

The variant is:

$$\begin{aligned} (S^2) &= \frac{N \times \sum FiXi^2 - (\sum FiXi)^2}{N(N-1)} \\ (S^2) &= \frac{19 \times 86721 - (1269)^2}{19(19-1)} \end{aligned}$$



$$(S^2) = \frac{1647699 - 1610361}{19(18)}$$

$$(S^2) = \frac{37338}{342}$$

$$(S^2) = 109.17$$

9. Standard deviation

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

$$S = \sqrt{109.17}$$

$$S = 10.44$$

## APPENDIX 24

### The Steps Analysis Data

1. The average score of experimental group.

$$M_x = \frac{X}{N_x} = \frac{532}{22} = 24.18$$

2. The average score of control group.

$$M_y = \frac{Y}{N_y} = \frac{144}{19} = 7.57$$

3. The deviation score of experimental group

$$\begin{aligned}\Sigma X^2 &= \Sigma X^2 - \frac{(\Sigma X)^2}{n_x} \\ &= 13280 - \frac{(532)^2}{22} \\ &= 13280 - \frac{283024}{22} \\ &= 13280 - 12864.72 \\ &= 415.28\end{aligned}$$

4. The deviation score of control group

$$\begin{aligned}\Sigma Y^2 &= \Sigma Y^2 - \frac{(\Sigma Y)^2}{n_y} \\ &= 2496 - \frac{(144)^2}{19}\end{aligned}$$

$$\begin{aligned}
&= 2496 - \frac{20736}{19} \\
&= 2496 - 1091.36 \\
&= 1404.64
\end{aligned}$$

5. The formulation of T-test

List of Score

No	Symbol	Score
1.	$M_X$	24.18
2.	$M_Y$	7.57
3.	$\Sigma X^2$	13280
4.	$\Sigma Y^2$	2496
5.	$n_X$	22
6.	$n_Y$	19

$$\begin{aligned}
Tt &= \frac{M_X - M_Y}{\sqrt{\left(\frac{\Sigma X^2 + \Sigma Y^2}{n_X + n_Y - 2}\right) \left(\frac{1}{n_X} + \frac{1}{n_Y}\right)}} \\
&= \frac{24.18 - 7.57}{\sqrt{\left(\frac{13280 + 2496}{22 + 19 - 2}\right) \left(\frac{1}{22} + \frac{1}{19}\right)}} \\
&= \frac{16.61}{\sqrt{\left(\frac{15776}{39}\right) (0.09)}} \\
&= \frac{16.61}{\sqrt{(404.51)(0.09)}}
\end{aligned}$$

$$= \frac{16.61}{\sqrt{36.40}}$$

$$= \frac{16.61}{6.03} = 2.75$$

$$\text{df (the degree of freedom)} = (n_1 + n_2 - 2) = 22 + 19 - 2 = 39.$$

## APPENDIX 25

### THE NORMALITY OF EXPERIMENT CLASS IN PRE-TEST

No	Xi	Fi	F Kum	Zi	F(Zi)	S(Zi)	(Fzi)-(Szi)
1	40	6	6	-0.94	0.173	0.27	-0.1
2	46	7	13	-0.31	0.378	0.59	-0.212
3	52	5	18	0.3	0.617	0.81	-0.193
4	58	0	18	0.9	0.815	0.81	0.005
5	64	2	20	1.5	0.933	0.90	<b>0.033</b>
6	70	2	22	2.1	0.982	1	-0.018

## APPENDIX 26

### THE NORMALITY OF CONTROL CLASS IN PRE-TEST

No	Xi	Fi	F Kum	Zi	F(Zi)	S(Zi)	(Fzi)-(Szi)
1	40	5	5	-1.22	0.111	0.26	-0.149
2	47	2	7	-0.62	0.267	0.36	-0.093
3	54	6	13	-0.03	0.488	0.68	-0.192
4	61	0	13	0.56	0.712	0.68	<b>0.032</b>
5	68	5	18	1.15	0.874	0.94	-0.066
6	75	1	19	1.75	0.959	1	-0.041

To find Z score by using this formula

$$Z_i = \frac{x_i - \bar{x}}{s}$$

To find S(Zi) score by using this formula:

$$S(Z_i) = \frac{F.kum}{N}$$

## APPENDIX 27

### THE NORMALITY OF EXPERIMENT CLASS IN POST-TEST

No	Xi	Fi	F Kum	Zi	F(Zi)	S(Zi)	(Fzi)-(Szi)
1	60	3	3	-1.59	0.056	0.13	<b>-0.214</b>
2	66	3	6	-0.06	0.194	0.27	-0.076
3	72	8	14	-0.13	0.448	0.63	-0.182
4	78	4	18	0.59	0.722	0.81	-0.008
5	84	3	21	1.33	0.908	0.95	-0.042
6	90	1	22	2.06	0.980	1	-0.02

## APPENDIX 28

### THE NORMALITY OF CONTROL CLASS IN POST-TEST

No	Xi	Fi	F Kum	Zi	F(Zi)	S(Zi)	(Fzi)-(Szi)
1	52	3	3	-1.12	0.131	0.15	-0.019
2	59	9	12	-1.45	0.326	0.63	-0.304
3	66	3	15	-0.21	0.673	0.78	-0.107
4	73	0	15	0.88	0.810	0.78	<b>0.03</b>
5	80	3	18	1.55	0.939	0.94	-0.001
6	87	1	19	2.22	0.986	1	0.014

To find Z score by using this formula

$$Z_i = \frac{x_i - \bar{x}}{s}$$

To find S(Zi) score by using this formula:

$$S(Z_i) = \frac{F.kum}{N}$$

## **APPENDIX 29**

### **THE HOMOGENITY OF EXPERIMENT CLASS AND CONTROL CLASS IN PRE-TEST**

To test whether variants of both homogenous samples, variants equality test, that is:

$$F = \frac{\text{the biggest variants}}{\text{the smallest variant}}$$

$$F = \frac{138.69}{91.40}$$

$$= 1.51 \text{ (F count)} < 2.10 \text{ (F table)}$$

## **APPENDIX 30**

### **THE HOMOGENITY OF EXPERIMENT CLASS AND CONTROL CLASS IN POST-TEST**

$$F = \frac{\text{the biggest variants}}{\text{the smallest variant}}$$

$$F = \frac{109.17}{67.32}$$

$$= 1.62 \text{ (F count)} < 2.10 \text{ (F table)}$$

# APPENDIX 31

**DISTRIBUTION TABEL NILAI  $F_{0,05}$**   
**DEGREES OF FREEDOM FOR NOMINATOR**

	1	2	3	4	5	6	7	8	9	10	12	15	20	24	30	40	60	120	$\infty$
1	161	200	216	225	230	234	237	239	241	242	244	246	248	249	250	251	252	253	254
2	18,5	19,0	19,2	19,2	19,3	19,3	19,4	19,4	19,4	19,4	19,4	19,4	19,4	19,5	19,5	19,5	19,5	19,5	19,5
3	10,1	9,55	9,28	9,12	9,01	8,94	8,89	8,85	8,81	8,79	8,74	8,70	8,66	8,64	8,62	8,59	8,57	8,55	8,53
4	7,71	6,94	6,59	6,39	6,26	6,16	6,09	6,04	6,00	5,96	5,91	5,86	5,80	5,77	5,75	5,72	5,69	5,66	5,63
5	6,61	5,79	5,41	5,19	5,05	4,95	4,88	4,82	4,77	4,74	4,68	4,62	4,56	4,53	4,50	4,46	4,43	4,40	4,37
6	5,99	5,14	4,76	4,53	4,39	4,28	4,21	4,15	4,10	4,06	4,00	3,94	3,87	3,84	3,81	3,77	3,74	3,70	3,67
7	5,59	4,74	4,35	4,12	3,97	3,87	3,79	3,73	3,68	3,64	3,57	3,51	3,44	3,41	3,38	3,34	3,30	3,27	3,23
8	5,32	4,46	4,07	3,84	3,69	3,58	3,50	3,44	3,39	3,35	3,28	3,22	3,15	3,12	3,08	3,04	3,01	2,97	2,93
9	5,12	4,26	3,86	3,63	3,48	3,37	3,29	3,23	3,18	3,14	3,07	3,01	2,94	2,90	2,86	2,83	2,79	2,75	2,71
10	4,96	4,10	3,71	3,48	3,33	3,22	3,14	3,07	3,02	2,98	2,91	2,85	2,77	2,74	2,70	2,66	2,62	2,58	2,54
11	4,84	3,98	3,59	3,36	3,20	3,09	3,01	2,95	2,90	2,85	2,79	2,72	2,65	2,61	2,57	2,53	2,49	2,45	2,40
12	4,75	3,89	3,49	3,26	3,11	3,00	2,91	2,85	2,80	2,75	2,69	2,62	2,54	2,51	2,47	2,43	2,38	2,34	2,30
13	4,67	3,81	3,41	3,13	3,03	2,92	2,83	2,77	2,71	2,67	2,60	2,53	2,46	2,42	2,38	2,34	2,30	2,25	2,21
14	4,60	3,74	3,34	3,11	2,96	2,85	2,76	2,70	2,65	2,60	2,53	2,46	2,39	2,35	2,31	2,27	2,22	2,18	2,13
15	4,54	3,68	3,29	3,06	2,90	2,79	2,71	2,64	2,59	2,54	2,48	2,40	2,33	2,29	2,25	2,20	2,16	2,11	2,07
16	4,49	3,63	3,24	3,01	2,85	2,74	2,66	2,59	2,54	2,49	2,42	2,35	2,28	2,24	2,19	2,15	2,11	2,06	2,01
17	4,45	3,59	3,20	2,96	2,81	2,70	2,61	2,55	2,49	2,45	2,38	2,31	2,23	2,19	2,15	2,10	2,06	2,01	1,96
18	4,41	3,55	3,16	2,93	2,77	2,66	2,58	2,51	2,46	2,41	2,34	2,27	2,19	2,15	2,11	2,06	2,02	1,97	1,92
19	4,38	3,52	3,13	2,90	2,74	2,63	2,54	2,48	2,42	2,38	2,31	2,23	2,16	2,11	2,07	2,03	1,98	1,93	1,88
20	4,35	3,49	3,10	2,87	2,71	2,60	2,51	2,45	2,39	2,35	2,28	2,20	2,12	2,08	2,04	1,99	1,95	1,90	1,84
21	4,32	3,47	3,07	2,84	2,68	2,57	2,49	2,42	2,37	2,32	2,25	2,18	2,10	2,05	2,01	1,96	1,92	1,87	1,81
22	4,30	3,44	3,05	2,82	2,66	2,55	2,46	2,40	2,34	2,30	2,23	2,15	2,07	2,03	1,98	1,94	1,89	1,84	1,78
23	4,28	3,42	3,03	2,80	2,64	2,53	2,44	2,37	2,32	2,27	2,20	2,13	2,05	2,01	1,96	1,91	1,86	1,81	1,76
24	4,26	3,40	3,01	2,78	2,62	2,51	2,42	2,36	2,30	2,25	2,18	2,11	2,03	1,98	1,94	1,89	1,84	1,79	1,73
25	4,24	3,39	2,99	2,76	2,60	2,49	2,40	2,34	2,28	2,24	2,16	2,09	2,01	1,96	1,92	1,87	1,82	1,77	1,71
30	4,17	3,32	2,92	2,69	2,53	2,42	2,33	2,27	2,21	2,16	2,09	2,01	1,93	1,89	1,84	1,79	1,74	1,68	1,62
40	4,08	3,23	2,84	2,61	2,45	2,34	2,25	2,18	2,12	2,08	2,00	1,92	1,84	1,79	1,74	1,69	1,64	1,58	1,51
50	4,08	3,18	2,79	2,56	2,40	2,29	2,20	2,13	2,07	2,02	1,95	1,87	1,78	1,74	1,69	1,63	1,56	1,50	1,41
60	4,00	3,15	2,76	2,53	2,37	2,25	2,17	2,10	2,04	1,99	1,92	1,84	1,75	1,70	1,65	1,59	1,53	1,47	1,39
100	3,94	3,09	2,70	2,46	2,30	2,19	2,10	2,03	1,97	1,92	1,85	1,80	1,68	1,63	1,57	1,51	1,46	1,40	1,28
120	3,92	3,07	2,68	2,45	2,29	2,18	2,09	2,02	1,96	1,91	1,83	1,75	1,66	1,61	1,55	1,50	1,43	1,35	1,22
$\infty$	3,84	3,00	2,60	2,37	2,21	2,10	2,01	1,94	1,88	1,83	1,75	1,67	1,57	1,52	1,46	1,39	1,32	1,22	1,00



## APPENDIX 32

Table Liliefors

Ukuran Sampel	Taraf Nyata ( $\alpha$ )				
	0.01	0.05	0.10	0.15	0.20
n= 4	0.417	0.381	0.352	0.319	0.300
5	0.405	0.337	0.315	0.299	0.285
6	0.364	0.319	0.294	0.277	0.265
7	0.348	0.300	0.276	0.258	0.247
8	0.331	0.285	0.261	0.244	0.233
9	0.311	0.271	0.249	0.233	0.223
10	0.294	0.258	0.239	0.224	0.215
11	0.284	0.249	0.230	0.217	0.206
12	0.275	0.242	0.223	0.212	0.199
13	0.268	0.234	0.214	0.202	0.190
14	0.261	0.227	0.207	0.194	0.183
15	0.257	0.220	0.201	0.187	0.177
16	0.250	0.213	0.195	0.182	0.173
17	0.245	0.206	0.189	0.177	0.169
18	0.239	0.200	0.184	0.173	0.166
19	0.235	<b>0.195</b>	0.179	0.169	0.163
20	0.231	0.190	0.174	0.166	0.160
25	0.200	<b>0.173</b>	0.158	0.147	0.142
30	0.187	0.161	0.144	0.136	0.131
n>30	1.031	0.886	0.85	0.768	0.736
	$\sqrt{n}$	$\sqrt{n}$	$\sqrt{n}$	$\sqrt{n}$	$\sqrt{n}$

## APPENDIX 33

### PERCENTAGE POINTS OF THE T DISTRIBUTION

Tail probabilities									
One two	tail Tails	0.10	0.05	0.025	0.01	0.005	0.001	0.0005	
		0.20	0.10	0.05	0.02	0.01	0.002	0.001	
D	1	3.078	6.314	12.71	31.82	63.66	318.3	637	1
E	2	1.886	2.920	4.303	6.965	9.925	22.330	31.6	2
G	3	1.638	2.353	3.182	4.541	5.841	10.210	12.92	3
R	4	1.533	2.132	2.776	3.747	4.604	7.173	8.610	4
E	5	1.476	2.015	2.571	3.375	4.032	5.893	6.869	5
E	6	1.440	1.943	2.447	3.143	3.707	5.208	5.959	6
S	7	1.415	1.895	2.365	2.998	3.499	4.785	5.408	7
	8	1.397	1.860	2.306	2.896	3.355	4.501	5.041	8
O	9	1.383	1.833	2.262	2.821	3.250	4.297	4.781	9
F	10	1.372	1.812	2.228	2.764	3.169	4.144	4.587	10
	11	1.363	1.796	2.201	2.718	3.106	4.025	4.437	11
F	12	1.356	1.782	2.279	2.682	3.055	3.930	4.318	12
R	13	1.350	1.771	2.160	2.650	3.012	3.852	4.221	13
E	14	1.345	1.761	2.145	2.624	2.977	3.787	4.140	14
E	15	1.341	1.753	2.131	2.602	2.947	3.733	4.073	15
D	16	1.337	1.746	2.120	2.583	2.921	3.686	4.015	16
O	17	1.333	1.740	2.110	2.567	2.898	3.646	3.965	17
M	18	1.330	1.734	2.101	2.552	2.878	3.610	3.922	18
	19	1.328	1.729	2.093	2.539	2.861	3.579	3.883	19
	20	1.325	1.725	2.086	2.528	2.845	3.552	3.850	20
	21	1.323	1.721	2.080	2.518	2.831	3.527	3.719	21
	22	1.321	1.717	2.074	2.508	2.819	3.505	3.792	22
	23	1.319	1.714	2.069	2.500	2.807	3.485	3.768	23
	24	1.318	1.711	2.064	2.492	2.797	3.467	3.745	24
	25	1.316	1.708	2.060	2.485	2.787	3.450	3.725	25
	26	1.315	1.706	2.056	2.479	2.779	3.435	3.707	26
	27	1.314	1.703	2.052	2.473	2.771	3.421	3.690	27
	28	1.313	1.701	2.048	2.467	2.763	3.408	3.674	28
	29	1.311	1.699	2.045	2.462	2.756	3.396	3.659	29
	30	1.310	1.697	2.042	2.457	2.750	3.385	3.646	30
	32	1.309	1.694	2.037	2.449	2.738	3.365	3.622	32
	34	1.307	1.691	2.032	2.441	2.728	3.348	3.601	34
	36	1.306	1.688	2.028	2.434	2.719	3.333	3.582	36
	<b>38</b>	<b>1.304</b>	<b>1.686</b>	<b>2.024</b>	<b>2.429</b>	<b>2.712</b>	<b>3.319</b>	<b>3.566</b>	<b>38</b>
	40	1.303	1.684	2.021	2.423	2.704	3.307	3.551	40
	42	1.302	1.682	2.018	2.418	2.698	3.296	3.538	42
	44	1.301	1.680	2.015	2.414	2.692	3.286	3.526	44
	46	1.300	1.679	2.013	2.410	2.687	3.277	3.515	46

	48	1.299	1.677	2.011	2.407	2.682	3.269	3.505	48
	50	1.299	1.676	2.009	2.403	2.678	3.261	3.496	50
	55	1.297	1.673	2.004	2.396	2.668	3.245	3.476	55
	60	1.296	1.671	2.000	2.390	2.660	3.232	3.460	60
	65	1.295	1.669	1.997	2.385	2.654	3.220	3.447	65
	70	1.294	1.667	1.994	2.381	2.648	3.211	3.435	70
	80	1.292	1.664	1.990	2.374	2.639	3.195	3.416	80
	100	1.290	1.660	1.984	2.364	2.626	3.174	3.390	100
	150	1.287	1.655	1.976	2.351	2.609	3.145	3.357	150
	200	1.286	1.653	1.972	2.345	2.601	3.131	3.340	200
Two One	Tails Tail	0.20	0.10	0.05	0.02	0.01	0.002	0.001	
		0.10	0.05	0.025	0.01	0.005	0.001	0.0005	
Tail probabilities									

## APPENDIX 34

### DOCUMENTATION OF RESEARCH

