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Assalamu 'alaikumwr.wb.

After reading, studying and giving advice for necessary revision on the thesis belongs to Dian Sartika Simanjuntak, entitled "The Effect of Story Mapping Technique to Comprehend Narrative Text at Grade VIII Students of SMP Negeri5 Padangsidimpuan". We assumed that the thesis has been acceptable to complete the assignments and fulfill the requirements for graduate degree of Education (S.Pd) in English Education Department, Tarbiyah and Teacher Training Faculty in IAIN Padangsidimpuan.

Therefore, we hope that the thesis will soon be examined by the Thesis examiner team of English Education Department of Tarbiyah and Teacher Training Faculty IAIN Padangsidimpuan. Thank you.

Wassalam 'alaikumwr.wb.


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#### Abstract

This research describes about the effect of Story Mapping Technique to comprehend narrative text at grade VIII students of SMP N 5 Padangsidimpuan. There were some problems in this research: 1) The students get difficulties in comprehending the text, 2) The students cannot combine the information that they have already read with their background knowledge, 3) The teacher uses inappropriate technique in teaching reading comprehension.

The kind of this research was experimental research. The population of this research was all of the eight grade of SMP N 5 Padangsidimpuan. The total of population were 265 students. Then, the sample of the research was 2 classes, VIII 5 as experimental class that consist of 28 students and VIII 6 as control class that consist of 28 students. The data were derived from pre-test and post-test. To analyze the data, the researcher used t -test formula.

Based on the calculation of $t$-test, the researcher found that $t_{\text {count }}=8.03$ and $\mathrm{t}_{\text {table }}=1.67356$. It means $\mathrm{t}_{\text {count }}>\mathrm{t}_{\text {table }}(8.03>1.67356)$. So, the researcher could concludes that Ha was accepted and Ho was rejected. There was the significant effect of using Story Mapping Technique to comprehend narrative text at grade VIII students of SMP Negeri 5 Padangsidimpuan.


Keywords: Comprehending Narrative, Story Mapping Technique.

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#### Abstract

ABSTRAK Penelitian ini mendeskripsikan tentang pengaruh teknik Story Mapping untuk memahami teks naratif pada siswa kelas VIII SMP N 5 Padangsidimpuan. Ada beberapa masalah dalam penelitian ini : 1). Siswa kesulitan dalam memahami teks, 2). Siswa tidak dapat menyatukan informasi yang telah dibaca dengan pengetahuan mereka sebelumnya, 3). Guru menggunakan teknik yang kurang tepat dalam mengajar pemahaman membaca.

Jenis penelitian ini adalah penelitian eksperimen. Populasi dalam penelitian ini adalah seluruh siswa kelas VIII SMP N 5 Padangsidimpuan. Total populasi adalah 265 siswa. Lalu, sampel penelitian ini adalah dua kelas, VIII 5 sebagai kelas eksperimen yang terdiri dari 28 siswa dan VIII 6 sebagai kelas kontrol yang terdiri dari 28 siswa. Data dikumpulkan melalui pre-test dan post-test. Untuk menganalisa data, peneliti menggunakan rumus t-test.

Berdasarkan perhitungan $t$-test, peneliti menemukan bahwa $t_{\text {hitung }}=8.03$ dan $t_{\text {table }}=1.67356$. Itu artinya $t_{\text {hitung }}>t_{\text {table }}$ (8.03>1.67356). Jadi, peneliti dapat menyimpulkan bahwa Ha diterima dan Ho ditolak. Ada pengaruh yang signifikan dari penggunaan teknik Story Mapping untuk memahami teks naratif pada siswa kelas VIII SMP N 5 Padangsidimpuan.


Kata kunci: Comprehending Narrative, Story Mapping Technique.

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Padangsidimpuan, Oktober 2019
Researcher

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## TABLE OF CONTENTS

Page
INSIDE TITLE PAGE .....
AGREEMENT ADVISORS SHEET ..... ii
DECLARATION OF SELF THESIS COMPLETION ..... iii
AGREEMENT PUBLICATION OF FINAL TASK FORACADEMIC CIVITY ..... iv
ABSTRACT ..... v
SCHOLAR MUNAQOSYAH EXAMINATION ..... vi
LEGALIZATION OF DEAN OF FTIK ..... vii
ACKNOWLEDGEMENT ..... viii
TABLE OF CONTENTS ..... x
LIST OF TABLES ..... xi
LIST OF FIGURES ..... xii
LIST OF APPENDIXES ..... xv
CHAPTER I INTRODUCTION
A. The Background of the Problem ..... 1
B. The Identification of the Problem ..... 4
C. The Limitation of the Problem. ..... 4
D. The Definition of Operational Variables ..... 4
E. The Formulation of the Problem ..... 5
F. The Purposes of the Research ..... 5
G. The Significances of the Research ..... 6
H. The Outline of the Thesis ..... 6
CHAPTER II THEORETICAL DESCRIPTION
A. The Theoretical Description ..... 8

1. Reading Comprehension ..... 8
a. Definition of Reading Comprehension ..... 8
b. Models of Reading ..... 10
c. The Aims of Reading Comprehension ..... 11
d. The Principle of Teaching Reading Comprehension ..... 12
e. Assessment of Reading Comprehension ..... 16
2. Story Mapping ..... 18
a. Definition of Story Mapping ..... 18
b. The Procedures of Story Mapping ..... 20
3. Narrative Text ..... 23
a. Definition of Narrative Text ..... 23
b. The Generic Structure of Narrative Text ..... 25
c. The Language Features in Narrative Text ..... 26
d. The Example of Narrative Text ..... 26
B. Review of Related Findings ..... 28
C. Framework of Thinking ..... 31
D. The Hypothesis of the Research ..... 33
CHAPTER III RESEARCH METHODS
A. The Place and Schedule of the Research ..... 34
B. The Research Design ..... 34
C. The Population and Sample ..... 35
4. Population ..... 35
5. Sample ..... 36
D. The Instrument of Research ..... 37
E. The Validity and Reliability Instrument ..... 38
6. The Validity ..... 38
7. The Reliability ..... 39
F. The Procedures of the Research ..... 40
8. Pre-test ..... 40
9. Treatment ..... 40
10. Post-test ..... 41
G. TheTechnique of Data Analysis ..... 42
11. Requirement test ..... 42
12. Hypothesis test ..... 43
CHAPTER IV DATA ANALYSIS
A. Description of Data ..... 44
13. The Description of Data before Using Story Mapping Technique. ..... 44
a. Score of Pre-Test Experimental Class ..... 44
b. Score of Pre-Test Control Class ..... 46
14. The Description of Data after Using Story Mapping Technique ..... 48
a. Score of Post-Test Experimental Class ..... 48
b. Score of Post-Test Control Class ..... 50
15. The Description of Comparison Data of Pre-Test and Post-Test ..... 53
a. The Comparison Data of Pre-Test and Post-Test in Experimental Class ..... 53
b. The Comparison Data of Pre Test and Post Test in Control Class ..... 54
c. The Comparison Data between Experimental and Control Class in Post Test ..... 56
B. Technique of Data Analysis ..... 57
16. Requirement Test ..... 57
a. Normality and Homogeneity Pre-Test. ..... 57
1) Normality of Experimental Class and Control Class in Pre-Test ..... 57
2) Homogeneity of Experimental Class and Control Class in Pre-Test ..... 58
b. Normality and Homogeneity Post-Test ..... 58
3) Normality of Experimental Class and Control Class in Post-Test ..... 58
4) Homogeneity of Experimental Class and Control Class in Post-Test ..... 59
2. Hypothesis Test ..... 59
C. Discussion ..... 61
D. Threats of the Research ..... 63
CHAPTER V THE CONCLUSION AND SUGGESTION
A. Conclusion ..... 64
B. Suggestion ..... 64

## REFERENCES

APPENDIXES

## LIST OF TABLES

Page
Table 1 Indicators of Reading Assessment ..... 17
Table 2 Research Design ..... 35
Table 3 Populatin of the Research ..... 35
Table 4 The Indicators of Reading Comprehension Test of Pre-Test ..... 37
Table 5 The Indicators of Reading Comprehension Test of Post-Test ..... 38
Table 6 The Score of Experimental Class in Pre-Test ..... 44
Table 7 Frequency Distribution of Students' Score ..... 45
Table 8 The Score of Control Class in Pre-Test ..... 46
Table 9 Frequency Distribution of Students' Score ..... 47
Table 10 The Score of Experimental Class in Post-Test ..... 48
Table 11 Frequency Distribution of Students' Score ..... 49
Table 12 The Score of Control Class in Post-Test ..... 51
Table 13 Frequency Distribution of Students' Score ..... 51
Table 14 The Comparison Data of Exp. Class in Pre-Test and Post Test ..... 53
Table 15 The Comparison Data of Control Class in Pre-Test and Post Test ..... 54
Table 16 Normality \& Homogeneity in Pre-Test ..... 57
Table 17 Normality \& Homogeneity in Post-Test ..... 58
Table 18 Result ot T-Test from the Both Averages ..... 60

## LIST OF FIGURES

Page
Figure 1 Story Mapping ..... 22
Figure 2 Story Mapping ..... 23
Figure 3 Description Data Pre-Test of Experiment Class. ..... 46
Figure 4 Description Data Pre-Test of Control Class ..... 48
Figure 5 Description Data Post-Test of Experiment Class ..... 50
Figure 6 Description Data Post-Test of Control Class. ..... 52
Figure 7 Comparison between Pre-Test and Post-Test in Exp. Class. ..... 54
Figure 8 Comparison between Pre-Test and Post-Test in Control Class. ..... 55

## LIST OF APPENDIXES

| Appendix 1 | Lesson Plan of Experimental Class |
| :--- | :--- |
| Appendix 2 | Lesson Plan of Control Class |
| Appendix 3 | Instrument for Pre- Test before Validity |
| Appendix 4 | Instrument for Pre-Test after Validity |
| Appendix 5 | Instrument for Post- Test before Validity |
| Appendix 6 | Instrument for Post-Test after Validity |
| Appendix 7 | Key Answer |
| Appendix 8 | Validity of Pre Test |
| Appendix 9 | Table Validity of Pre-Test |
| Appendix 10 | Reliability of Pre Test |
| Appendix 11 | Reliability of Pre Test |
| Appendix 12 | Validity of Post Test |
| Appendix 13 | Table Validity of Post-Test |
| Appendix 14 | Reliability of Post Test |
| Appendix 15 | Reliability of Post Test |
| Appendix 16 | Result of Normality Test in Pre Test |
| Appendix 17 | Homogeneity Test (Pre-Test) |
| Appendix 18 | Score of Experimental Class and Control Class Pre Test |
| Appendix 19 | Score of Experimental Class and Control Class Post Test |
| Appendix 20 | Result of Normality Test in Post Test |
| Appendix 21 | Homogeneity Test (Post-Test) |
| Appendix 22 | T-test of the Both Averages in Pre-Test |
| Appendix 23 | T-test of the Both Averages in Post-Test |
| Appendix 24 | Chi-Square Table |
| Appendix 25 | Z-Table |
| Appendix 26 | Percentage Points of the t Distribution |
| Appendix 27 | Research Documentation |
| Ap 10 |  |

## CHAPTER I

## INTRODUCTION

## A. The Background of the Problem

Reading is the fundamental of all aspects in learning. Reading is the process of interpreting the information from the text in order to construct the meaning. Other basic skills in English; listening, speaking, and writing come from what have been read. In this time, reading is not only from the printed text, but also from the internet. If the students read the text, but they do not understand what they have read, they are not really reading. By reading, students can improve their knowledge, add their vocabularies, and enrich their concentration.

Reading comprehension is a receptive skill in which the students try to understand the written texts. The students have to catch the explanation from the texts. The students need comprehension to catch the information from the text.

Comprehension is the main goal of reading process. In indonesian currriculum, reading comprehension has a position as one of the abilities for students to master English. When reading, they usually focus on the parts of the text that are particularly important for their aim or particularly difficult. The rest of the text they read more quickly and with less care. After reading they continue to reflect on the text, review it and possibly reread some parts of the text that seem important to their aim or that they did not understand well during the first reading.

In the current curriculum- 2013 curriculum (K13), there are some texts that must be learnt by junior high school students in Indonesia. The curriculum 2013 provide various types of text that is used to improve the frame of mind, knowledge and ability of students in communicating using English that appropriate with competence that has been set. Several examples of types of the text are narrative, procedure, descriptive, report, news items, exposition, spoof, explanation, and discussion. Among the texts which are mentioned above, the researcher choose narrative text because narrative text is considered as the most interesting text.

However, many students have difficulties in reading. ${ }^{1}$ The main problem of reading is the students get difficulties in comprehending the text. They get difficulties in understanding information from the text and finding the details, recognizing the specific information of the text, deciding word reference, getting the purpose of the reading, knowing the tense mostly used and also generic structure of reading text.

They can not combine the information that they have already read with their background knowledge. They read the text slowly and open their dictionary to get the meaning of difficult words. It will disturb the process of comprehending the text. They tell that learning reading is boring because they read a text on an unfamiliar topic.

The teacher can not make an interesting learning process in the classroom. The teacher ask the students to read the text. Then the students

[^0]translate the text and every word which is inappropriate technique to make them understand the text. After translating the text, they answer the questions. As a result the students become bored and can not enjoy the learning process in the classroom.

Dealing with the students' comprehension difficulties, teacher should take appropriate technique to help the students solve their difficulties in comprehending the text. There are many techniques that can help the students to understand the English text. Some of the popular techniques in teaching reading comprehension are Silent Reading, Semantic Mapping, Jigsaw, Skimming, Scanning, Story Mapping and anothers. Those various techniques are suitable and good for enjoyable teaching reading comprehension in the classroom.

This research used story mapping as a technique to help the students to comprehend the text easier. Story maps outline the structure of a story with specific headings (such as setting, main character, events). Students filled the story mapping with single word or phrase each heading. Story maps are particularly appropriate for students, who may not be familiar with the discourse structure of a text. ${ }^{2}$ This is a technique to generate, visual and organize ideas into map based on the word, phrase, and sentences by using a diagram or a chart that usually shows key components of a story, for example, characters, setting, problem, action, and ending or resolution. For

[^1]this reason, the researcher has interested to apply Story Mapping Technique to students' reading comprehension.

## B. The Identification of the Problem

Here, the researcher identifies the problems of the research like:

1. The students get difficulties in comprehending the text.
2. The students cannot combine the information that they have already read with their background knowledge.
3. The teacher uses inappropriate technique in teaching reading comprehension.

## C. The Limitation of the Problem

Here, the researcher limits the problem on the difficulties of the students in reading. In this case, the researcher used Story Mapping Technique to help the students in comprehending narrative text.

## D. The Definition of Operational Variables

To avoid the ambiguity, this research was consisted of two variables, so the definition of these variables can be described as follows:

## 1. Story Mapping

Story mapping is an effective technique to help students to understand the text more easily. It shows the components of the story. So the students keep the information in their schema more efficiently and facilitates the recall of the story elements more completely and accurately.

## 2. Students' Reading Comprehension

Students' reading comprehension means the students' ability in getting the information and interpret the meaning.

## E. The Formulation of the Problem

The formulation of the problem in this research are:

1. How is the narrative text comprehension before learning story mapping technique at grade VIII students of SMP Negeri 5 Padangsidimpuan?
2. How is the narrative text comprehension after learning story mapping technique at grade VIII students of SMP Negeri 5 Padangsidimpuan?
3. Is there any significant effect of learning story mapping technique to comprehend narrative text at grade VIII students of SMP Negeri 5 Padangsidimpuan?

## F. The Purposes of the Research

From the formulation of the problem above, the purposes of this research are:

1. To describe the students' narrative text comprehension before learning story mapping technique at grade VIII students of SMP Negeri 5 Padangsidimpuan.
2. To describe the students' narrative text comprehension after learning story mapping technique at grade VIII students of SMP Negeri 5 Padangsidimpuan.
3. To examine the significant effect of learning story mapping technique to comprehend narrative text at grade VIII students of SMP Negeri 5 Padangsidimpuan.

## G. The Significances of the Research

The significances of this research are:

1. Headmaster, to encourage teachers to do the best in teaching.
2. Teachers, to give information and source about the use of story mapping technique to comprehend narrative text.
3. Next researcher, to give information and contributes the knowledge about story mapping as a technique to comprehend narrative text.

## H. The Outline of the Thesis

This research is organized into five chapters. Each chapter consisted of many sub chapters with detail. Chapter one consisted of introduction, they are: the background of the problem, the identification of the problem, the limitation of the problem, the definition of operational variables, the formulation of the problem, the purposes of the research, the significances of the research, and the outline of the thesis.

Chapter two consist of theoretical description with some sub theory about reading comprehension, Story Mapping Technique, Narrative Text, review of related findings, framework of thinking, and the hypothesis of the research.

Chapter three consist of methodology of the research, included in: the place and schedule of the research, the research design, the population and
sample, the instrument of the research, the validity and reliabity of instrument, the procedures of the research and the technique of data analysis.

Chapter four is the result of the research talking about the analysis of the data. It is consist of description of data, hypothesis testing, discussion and the threats of research.

Chapter five consist of conclusion about the result of research and suggestion which is given by researcher.

## CHAPTER II

## THEORITICAL DESCRIPTION

## A. The Theoretical Description

## 1. Reading Comprehension

## a. Defenition of Reading Comprehension

Reading is one of the important skills needed by the students to get the information from written text. Marianne Celle-Murcia states reading as an interactive and socio cognitive process, involving a text, a reader, and social context in which the activity of reading takes place. ${ }^{1}$ Gillet and Temple in I Putu Sukmaantara et al. say that reading is a way of life, a lifetime habit, a passion avocation ${ }^{2}$. In other words, it is a useful activity that may change the mind of the readers and modify their behavior of life.

The other defenition of reading comes from some experts, Linse states that reading is a set of skills that involves making sense and deriving meaning from the printed words. ${ }^{3}$ In order to read, the students must able to decode (sound out) the printed words and also comprehend what they read. Akhondi, Malayeri, and Samad in Jaime N. Chavez et al. argue that students begin learning about reading

[^2]through narrative story structures. ${ }^{4}$ Understanding the meaning of a text, or reading comprehension, is necessary to a student's ability to keep successful in school.

Reading comprehension as the process of simultaneously extracting and constructing meaning through interaction and involvement with written language. Comprehension entails three elements:

1) The reader who is doing the comprehending.
2) The text that is to be comprehended.
3) The activity in which comprehension is a part. ${ }^{5}$

Reading comprehension refers to reading for meaning, understanding, and entertainment. ${ }^{6}$ It involves higher-order thinking skills and is much more complex than merely decoding particular words.

From the defenitions, it can be concluded that reading comprehension is mental process in which the readers try to connect what they read to their background knowledge in order to understand or comprehend the text.

[^3]
## b. Models of Reading

Models of reading use to describe reading process. The models of reading are divided into three categories:

1) Bottom-up models consist of lower-level reading processes. Students start with the fundamental basics of letter and sound recognition, which in turn allows them to move up to morpheme recognition followed by word recognition, building up to the identification of grammatical structures, sentences, and longer texts. Understanding letters, letters clusters, words, phrases, sentences, longer text, and finally meaning is the order in achieving comprehension. With the bottom-up model, students start from the bottom (letters and sounds) to get the top (comprehension).
2) Top-down models begins with the idea that comprehension resides in the reader. The reader uses background knowledge, makes predictions, and searches the text to confirm or reject the predictions that are made. A reading passage can thus be understood even if not all of the individual words are understood. Within a top-down approach to reading, the teacher focuses on meaning-generating activities rather than on mastery of the bottom-up skills of letter, sound, and word recognition.
3) Interactive reading models combines elements of both bottom-up and top-down approaches. The best readers in any language are those who combine elements of both. ${ }^{7}$

Based on the explanation above, it can be concluded that there are three models of reading, they are bottom-up models, top down models, and interactive reading models. So, when the readers read the text, one of the three processes of reading above will be applied to get the purpose of their reading.

## c. The Aims of Reading Comprehension

The aims of reading comprehension are to take and to catch the information include content and meaning from written text. According to Jeremy Harmer, there are many aims or reasons for reading:

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 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 andtelephone 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 hare schemata. ${ }^{8}$

So, the the aims of reading is different for each readers. It should be influenced how and what for readers read a piece of material. Different situations require diffrent goal. It shows what kind of the text will be read.

[^4]
## d. The Principle of Teaching Reading Comprehension

H. Douglas Brown states that the principle of teaching reading comprehension as follows:

1) Identify your purpose in reading a text.
2) Apply spelling rules and conventions for bottom-up decoding.
3) Use lexical analysis (prefixes, roots, suffixes, and other) to determine meaning.
4) Guess at meaning (of words, idioms, and other) when you are not certain.
5) Skim the text for the gist and for main ideas.
6) Scan the text for specific information (names, dates, key words).
7) Use silent reading techniques for rapid processing.
8) Use marginal notes, outlines, charts, or semantic map for understanding and retaining information.
9) Distinguish between literal and implied meanings.
10) Capitalize on discourse markers to process relationships. ${ }^{9}$

David Nunan stated that there are many principles in teaching reading comprehension, they are stated in following:

1) Exploit the reader's background knowledge.

Background knowledge includes all of experiences that a reader brings to a text: life experiences, educational experiences, knowledge of how text can be organized rhetorically, knowledge of how one's first language works, knowledge of how the second language works, and cultural background and knowledge. Reading comprehension can be significantly enhanced if background knowledge can be

[^5]activated by setting goals, asking questions, making predictions, teaching text structure, and so on. If students are reading on unfamiliar topic, you may need to begin the reading process by building up background knowledge.
2) Build a strong vocabulary base.

Basic vocabulary should be explicitly taught and L2 readers should be taught to use context to effectively guess the meanings of less frequent vocabulary.
3) Teach for comprehension.

Cognition can be defined as thinking. Metacognition can be defined as thinking about our thinking. In order to teach comprehension, the readers must monitor their comprehension processes and be able to discuss with the teacher or fellow readers what strategies they use to comprehend. By doing this, the readers use both their cognitive and metacognitive skills.

Questioning the author is an excellent technique for engaging students in meaningful cognitive and metacognitive interactions with text and for assisting students in the process of constructing the meaning from text. Beck et. al. emphasize that this activity is to be done during the reading process, not after reading. Students learn to engage with meaning and develop ideas rather than retrieve information from the text.

Use of this approach engages the teacher and readers in queries about the text as the material is being reading.
4) Work on increase reading rate.

The teacher must work towards finding a balance between assisting students to improve their reading rate and that the focus is not to develop speed readers, but fluent readers. A fluent reader is a reader who reads at a rate of 200 words-per minute with at least 70 percent comprehension.
5) Teach reading strategies.

To achieve the desire result in reading, students need to learn how to use a range of reading strategies that match their purposes for reading. Teaching them how to do this should be a prime consideration in the reading class room.

A good technique to sensitize students to the strategies they use is to get them to verbalize (or talk about) their thought processes as they read. Readers can listen to the verbal report of another reader who has just read the same material, and it is often revealing to hear what other readers have done to get meaning from a passage.
6) Encourage readers to transform strategies into skills. The use of the skill takes place outside the direct consciousness of the reader. The goal for explicit strategy
instruction is to move readers from conscious control reading strategies to unconscious use of reading skills.
7) Build assessment and evalution into your teaching.

Assessing growth and development in reading requires time and training. Both quantitative and qualitative assessment activities should be included in the reading classroom. Quantitative assessment will include information from reading comprehension tests as well as reading rate data. Qualitative information can include reading journal responses, reading interest surveys, and responses to reading strategy checklist.
8) Strive for continuos improvement as a reading teacher. Reading teachers need to be passionate about their work. They should view themselves as facilitator, helping each reader discover what works best. The good reading teacher actively teaches students what to do. To succeed, you need more than classroom tips and techniques: you need to understand the nature of the reading process. ${ }^{10}$

Beside that, Anderson stated that five principles to teach reading to beginning proficiency learners. The five principles are:

1) Select appropriate reading materials.
2) Balance bottom-up, top-down, and interactive reading instruction.

[^6]3) Explicitly teach reading strategies.
4) Focus attention on vocabulary development skills.
5) Provide both intensive and extensive reading instruction. ${ }^{11}$

Therefore an English teacher can apply above principles in teaching reading comprehension to make the students more efficient readers.

## e. Assesment of Reading Comprehension

Assessment is an ongoing process that encompasses a much wider domain. Routman in J. Michael O' Malley indicates that in order for reading assessment teachers should consider the following:

1) Be thoroughly familiar with developmental learning processes and curriculum.
2) Articulate a philosophy of assessment and evaluation.
3) Know about and have experience collecting, recording, interpreting and analyzing multiple sources of data.
4) Be flexible and willing to try out multiple assessment procedures.
5) Be committed to understanding and implementing an approach to evaluation that informs students and directs instruction. ${ }^{12}$

Some basic points to remember in the assessment of reading of English language learners include:

1. Activities for assessing reading should be based on activities for teaching reading.
2. Assessment of reading, like instruction, takes planning, time, and experience.
3. Assessment of reading should include both decoding skills and reading comprehension strategies.
4. Assessment of reading should include students' attitudes and feelings toward reading.

[^7]5. Assessment of reading should hold students accountable for how they use time in class for reading.
6. Assessment of reading should be conducted regularly and be ongoing.
7. Students should be actively involved in their own assessment, whether it will be in setting criteria, engaging in selfassessment, or evaluating peers.
8. Teacher observations of reading should be recorded systematically.
9. Assessment of reading should consist of multiple assessments for each student in order to monitor students' progress.
10. Result of reading assessment should be used to inform students, parents, and teachers of needed changes in student performance and in instruction. ${ }^{13}$

Based on the explanation above, the teacher should remember the tenth points in assessing reading. In order to know the students ability in learning reading narrative text comprehension, the researcher will give 20 questions based on some narrative texts.

There are several indicators in assessing students' reading, as follow:

Table 1
Indicators of Reading Assessment

| NO | Indicators of Reading Assessment |
| :---: | :--- |
| 1. | Able to identify the social function of the text |
| 2. | Able to identify the character, place, time |
| 3. | Able to identify the problem |
| 4. | Able to identify the resolution |
| 5. | Able to identify the coda |
| 6. | Able to identify the vocabulary in the context ${ }^{14}$ |

Based on the indicators of reading assessment above, the students should able to identify the social function of the text, the

[^8]characters, place, time, the problems found in the text, the coda or moral value from the text, and the vocabulary in the context to get the meaning of words. These indicators will be an escort for the teacher in assessing students' reading comprehension.

## 2. Story Mapping

## a. Defenition of Story Mapping

One type of graphic organizer that can be helpful to students in organizing information is a story map. Sorrel in Necla Isikdogan and Kargin says that story map is a schema construction technique that involves teaching the relationships of parts of a story with each other to the reader and giving basic elements of the story in a schema in order to draw the attention of the reader. ${ }^{15}$ According to Davis and McPherson in Necla Isikdogan and Kargin that story map is the representation of some part of or the whole story and the relations of basic components of the story to each other in graphical form. ${ }^{16}$ It is also stated by Reutzel in Richard T. Boon, a story map is a visual framework, typically presented in the form of a graphic organizer, to facilitate the acquisition of story structure and story elements. ${ }^{17}$ Story

[^9]mapping is one instructional technique that can improve students reading comprehension skills of narrative text.

Jiang and William in Nada Alturki argue that story mapping utilizes visual representations to support students and give them a chance to understand what they read easily. ${ }^{18}$ Boulineau in Nada Alturki says that group story- mapping technique is a tool or technique that utilizes a graphic organizer to support learners to recognize the story components such as the main character, setting/time, and solution. ${ }^{19}$ In addition, Jitendra and Gajria in Chavez et al. say that generally story maps include elements, such as characters, time, problem, goal, action, and outcome. ${ }^{20}$ Story maps outline the structure of a story with specific headings (such as setting, main characters, events).

Story maps provide a visual-spatial display for key information in narrative texts. These maps function to prompt learners to identify story elements and provide space for them to record this information. ${ }^{21}$ The display and arrangement of the story elements on a

[^10]story map assists the students to visualize the story structure and to identify the key story components within a story passage.

As stated by Sorrell in Tori Boulineau describes story-mapping as a tool for providing or building upon prior knowledge or schema. ${ }^{22}$ Jitendra and Gajria in Chavez et al. argue that story maps not only help students with literal comprehension but also encourage inferential thinking. ${ }^{23}$ Story maps are particularly appropriate for students, who may not be familiar with the discourse structure of a text. ${ }^{24}$ Students fill in the story map with single word or phrase each heading.

## b. The Procedures of Story Mapping

Rathvon in Kussai Tawfiq Ghazal et al. suggests three phases to implement the Story Mapping technique in the classroom; they are designed to enhance students' independent use of Story Mapping over time:

1) Modeling Phase

At the beginning of the lesson, the teacher tells the students that they are going to learn the elements of a story i.e. the setting, characters, the problem, events, and the resolution. After that, the teacher draws the Story Mapping on the board and explains the meaning of each element of the Story Mapping and gives examples

[^11]of story mapping elements from what they have been read. The teacher helps the students to understand the relationships between these elements.
2) Guided Practice

The teacher gives the copies of the Story Mapping and asks students to read another next paragraph and fill in their Story Mapping independently. Then, the teacher calls one of the students to identify Story Mapping elements, responds positively to students' questions and encourages them to give their opinions. At the end of this phase, the teacher records responses on the Story Mapping figure. Students can make any necessary corrections on their individual maps.
3) Independent Practice

The teacher asks students to read silently paragraph and complete their Story Mapping independently. Then, he tells them that they can fill in the maps as they read a paragraph, after they read it, or a combination. Feedback and assistance can be provided as needed, but students do not respond as a group to Story Mapping elements. ${ }^{25}$

These procedures above guide the researcher to apply Story Mapping Technique in teaching reading comprehension in the classroom.

[^12]

Based on the explanation above, the application of Story Mapping in
Narrative Text as follows:


Figure 2
Story Mapping by J. Michael O' Malley and Lorraine Valdez Pierce ${ }^{27}$

[^13]
## 3. Narrative Text

## a. Defenition of Narrative Text

A narrative is simply a story that illustrates a point. That point is often about an emotion. ${ }^{28}$ Narrative is any written English text in which the writer wants to amuse, entertain people, and to deal with actual or vicarious experience in different ways. ${ }^{29}$ Abbott says that narrative is the principal way in which our species organizes its understanding of time and that the ability to manage time fluidly within a narrative allows events themselves to create order of time. ${ }^{30}$ Narrative is a basic and constant form of human expression regardless of ethnic origin, primary language, and enculturation.

Polkinghorne also says in Ermawati that the defenition of narrative is the fundamental scheme for linking individual human actions and events into interrelated aspects of an understanable composite. ${ }^{31}$ The other defenition of narratives is event selection and event sequencing is two crucial functional elements of narrative construction, and they are reciprocally related to the subjective experience of time described in the narrative.

[^14]Labov in Barbara Johnson theory argue that narrative is not any talk about the past, or any talk about events; it is specifically talk in which a sequence of clausess is matched to a sequence of events which (it is inferred) actually occured. ${ }^{32}$ Narrative is the primary means of comprehension and expression for our experience of events changing over time. A narrative is re-presentation of reality from a particular perspective: reality reconfigured to express meaning. ${ }^{33}$ On the other hand, narratives are untypical of many written text, in that they are intended to be heard or read in the order that they are presented.

## b. The Generic Structure of Narrative Text

Sanggam Siahaan and Kisno Shinoda define the component of narrative text are orientation, evaluation, complication, resolution, and re-orientation. ${ }^{34}$ It will be explained as below:

1) Orientation

The orientation is the beginning of the text. Orientation establishes the time, place, setting and opening cast.
2) Evaluation

Evaluation indicating the point or interest of the story. It is a stepping back to evaluate the plight. It can be optional.
3) Complication

[^15]The complication is the action or set of actions following the earlier event or action. This is the place in which a crisis arises.
4) Resolution

The resolution tells what finally happened. This is the place in which the crisis is resolved for better or for worse.
5) Re -orientation

The re-orientation is a formal conclusion that signals the end of the story, and returns the storyteller and the public to the present. It can be optional. ${ }^{35}$

So, the reader can see each component above in every narrative text when they read it.

## c. The Language Features in Narrative Text

Every text has its own characteristic of language. There are several language features in narrative text:

1) Focus on specific and usually individualized participants (Mousedeer, Crocodile).
2) Use of Material Processes (doing activities: go, swim, cross, jump).
3) Use of Relational Processes (concerned with being, possesing, or becoming: own, have, belong to, is).
4) Use of temporal conjunction, and temporal circumstances (finally, after that, then, when, one day, once upon a time, long-long ago).
5) Use of past tense (saw, wanted, stood). ${ }^{36}$

Narrative text should have the language features above. It can be used as the characteristics to identify narrative text.

[^16]
## d. The Example of Narrative Text

Below is the example of Narrative Text:

## Mouse deer and Crocodile

One day Mouse deer saw a lot of fruits on the other side of the river. He wanted to eat them but he could not cross the river. There were many crocodiles there, but there was no bridge across the river. The Mouse deer suddenly had an idea. He stood on the river side and called out.
"Hello. Is anybody there?"
Crocodile heard him, he swam fast to meet Mouse deer, and answered, "Hello, Mouse deer. How are you? Please come in." He pretended to be friendly. He had a plan. As soon as Mouse deer got near, he would snap him and eat him for breakfast.

But Mouse deer was standing on top of a big stone. In a proud voice he said, "Crocodile, I'm here to do the King's order. The King will give away free meat to all crocodiles. He has sent me to count the number of all the crocodiles here."

Crocodile was so happy that he forgot his plan to eat Mouse deer. "Really? How will you count us?"
"Please call all your family, relatives, friends, neighbours. Tell them to line up from here to the other side of the river," ordered Mouse deer.

Before long, all the crocodiles were in a long line across the river. Then, Mouse deer jumped onto the back of one crocodile to another, counting loudly "One, Two, Three, Four." When he got to the last crocodile he said "One hundred!" and quickly jumped up to the land.
"How many are we?" asked Crocodile.
"One hundred. Hahaha, I fooled you! Thanks for giving me a bridge to cross the river. Bye!"

Based on the text above, the analysis of Generic Structure in Narrative Text as follows:

Title

Orientation

## Mouse deer and Crocodile

One day Mouse deer saw a lot of fruits on the other side of the river. He wanted to eat them but he could not cross the river. There were many crocodiles there, but there was no bridge across the river. The

Mouse deer suddenly had an idea. He stood on the river side and called out.
"Hello. Is anybody there?"
Crocodile heard him, he swam fast to meet Mouse deer, and answered, "Hello, Mouse deer. How are you? Please come in." He pretended to be friendly. He had a plan. As soon as Mouse deer got near, he would snap him and eat him for breakfast.

But Mouse deer was standing on top of a big stone. In a proud voice he said, "Crocodile, I'm here to do the King's order. The King will give away free meat to all crocodiles. He has sent me to count the number of all the crocodiles here."

Crocodile was so happy that he forgot his plan to eat Mouse deer. "Really? How will you count us?"
"Please call all your family, relatives, friends, neighbours. Tell them to line up from here to the other side of the river," ordered Mouse deer.

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"How many are we?" asked Crocodile.
"One hundred. Hahaha, I fooled you! Thanks for giving me a bridge to cross the river. Bye!" ${ }^{37}$

## B. Review of Related Findings

Many researchers were talking about students' reading comprehension and there were some researchers that have been used Story Mapping Technique. Related to this research, some researchers had been done as follow:

First, Eka Sustri Harida stated that learning vocabulary through mapping map will help students are easier to remember and to conceptualize it. ${ }^{38}$ It means learning vocabulary by using mapping will be good to improve vocabulary.

Second, Nursalimah Nasution in her research concluded that there was the improvement of students' reading comprehension by using Story

[^17]Mapping Technique. The mean score in the first cycle was 70.33 and second cycle was 80.83 . The result of $t$-test was higher than $t$-table $(5.58>2.045) .{ }^{39}$

It means Story Mapping Technique can improve students’ readig comprehension.

Third, Riza Kisfinata in her research showed that there was the significant effect of Story Mapping Technique to students' reading comprehension. The mean score of post-test in experimental class was 71.8 . For control class, the mean score of post-test was 66.11 . The result of $t$-test was higher than $t$-table $(3.7>2.00) .{ }^{40}$ So, the application of Story Mapping Technique is better, effective, and efficient than conventional technique.

Fourth, Novia Uswatun Hasanah in her research concluded that there was the improvement of students' reading comprehension by using Story Mapping Technique. The mean score in the first cycle was 67 and second cycle was $89 .{ }^{41}$ It shows the Story Mapping Technique can improve students' reading comprehension.

Fifth, Anna Agus Selviana in her research concluded that there was the improvement of students' reading comprehension by using Story Mapping Technique. The mean score in the first cycle was 61.64 and second

[^18]cycle was $76.58 .^{42}$ So, the implication of Story Mapping Technique can increase students' reading comprehension.

Sixth, Norma Ita Sholichah in her research concluded that there was the significant effect of Story Mapping on students' reading comprehension. The mean score of pre-test in experimental class was 53.57 , the mean score of post-test was 65.60 . For control class, the mean score of pre-test was 49.42 and the mean score of the post-test was $48.74 .^{43}$ It shows Story Mapping Technique can increase students' reading comprehension.

Next, Eka Sustri Harida in her research concluded that story mapping technique improved students' reading narrative text comprehension. The mean score in first cycle was $70.33(43.33 \%)$ and in second cycle was 80.83 $(86.66 \%) .{ }^{44}$ It shows the Story Mapping Technique can improve students' reading comprehension.

The last, Siti Nurhamidah, Syahid Muammar Pulungan, and Eka Sustri Harida in their research shows that there were two strategies of teacher in teaching reading comprehension at SMA N 2 Padang Bolak. They were activating background knowledge of students and teach for

[^19]comprehension. ${ }^{45}$ So, there are many teachers' stategies that can apply to teach reading comprehension

Based on explanation above, the researcher concludes that many strategies influenced reading comprehension. One of the strategy is Story Mapping Technique that increase students' reading comprehension. In this case, the researcher did a research by using Story Mapping Technique to increase students' reading comprehension. The researcher hopes this research can complete and contribute the previous findings.

## C. Framework of Thinking

Reading is the process of interpreting the information from the text in order to construct the meaning. Many people are difficult to comprehend the text, so do students of SMP Negeri 5 Padangsidimpuan especially in the second grade. They have some problems in reading comprehension, for instance difficult to comprehend the text, cannot combine the information with their background knowledge, and the teacher uses inappropriate technique in teaching reading comprehension. Story Mapping Technique is reading technique that help students to comprehend the text. So by applying this technique, the students will be easier to understand and comprehend the reading text. The researcher illustrates the conceptual framework as follow:

[^20]
D. The Hypothesis of the Research

The hypothesis of this research are:

1. There is the significant effect of using Story Mapping Technique to comprehend narrative text at grade VIII students of SMP Negeri 5 Padangsidimpuan.
2. There is no significant effect of using Story Mapping Technique to comprehend narrative text at grade VIII students of SMP Negeri 5 Padangsidimpuan.

## CHAPTER III

## RESEARCH METHODOLOGY

## A. The Place and Schedule of the Research

This research had been conducted at SMP Negeri 5 Padangsidimpuan. It is located on Jl. Perintis Kemerdekaan No. 61 Padangsidimpuan Selatan. It was done from April 2019 up to October 2019.

## B. The Research Design

The kind of this research is quantitative research with experimental method. It represents the strongest chain of reasoning about the links between variables. In experimental research the researcher manipulates at least one independent variable, controls other relevant variables, and observes the effect on one or more dependent variables. The researcher divides this research into two variables, those are independent (Story Mapping Technique) and dependent (students' reading narrative text).

The researcher use two classes in this research. One of the classes is taught with Story Mapping Technique and it called as experimental class or as a treatment. Meanwhile the other class is taught with Conventional Technique and called as control class.

Based on using control and experimental class, the research design that is used ' true experimental design'. The design which used is PretestPosttest Control Group Design. The pretest-posttest control group design requires at least two groups, each of which is formed by random assignment. Both groups are administered a pretest, each group receives a
different treatment, and both groups are posttested at the end of the study. Posttest scores are compared to determine the effectiveness of the treatment.

Table 2
Research Design

| Class | Pre-test | Treatment | Post-test |
| :---: | :---: | :---: | :---: |
| Experiment <br> Class | $\checkmark$ | Story <br> Mapping <br> Technique | $\checkmark$ |
| Control Class | $\sqrt{ }$ | Convetional <br> Technique | $\checkmark$ |

## C. The Population and Sample

## 1. Population

The population as the data sources of this research are all of the second grade students of SMP Negeri 5 Padangsidimpuan that consist of 9 classes.

Table 3
Population of the Research

| No | Class | Students |
| :---: | :---: | :---: |
| 1 | VIII-1 | 32 |
| 2 | VIII-2 | 31 |
| 3 | VIII-3 | 32 |
| 4 | VIII-4 | 25 |
| 5 | VIII-5 | 28 |
| 6 | VIII-6 | 28 |
| 7 | VIII-7 | 30 |
| 8 | VIII-8 | 29 |
| 9 | VIII-9 | 30 |
| TOTAL |  | 265 |

## 2. Sample

In this research, the researcher choose two classes as a sample. The classes are divided into experimental class and control class. The research used random sampling to take the sample.

Normality test is used to know whether the data of research is normal or not. The researcher use normality test with using Chi Square formula, as follows:

$$
x^{2}=\sum\left(\frac{\left(f_{o}-f e\right) 2}{f e}\right)
$$

Where: $\quad x^{2}=$ value of Chi Square
$\mathrm{f}_{\mathrm{o}}=$ observed frequency
$f_{e}=$ expected frequency $^{1}$
To calculate the result of Chi Square, it was used significant level 5\% $(0,05)$ and degree of freedom as big as total of frequency was lessened 1 $(\mathrm{df}=\mathrm{k}-1)$. If result $\mathrm{x}^{2}{ }_{\text {count }}<\mathrm{x}^{2}$ table. So, it can be said that the data is distributed normal. The hypothesis are:

Ha: The distribution of class is normal.
Ho: The distribution of class is not normal.
Homogeneity test is used to know whether control class and experimental class have the same variant or not. If both classes are same, it can be called homogenous. The researcher use homogeneity test with using Harley test, as follows:

[^21]$$
\mathrm{F}=\frac{\text { The biggest variant }}{\text { The smallest variant }}
$$

Where: $\mathrm{n}_{1}=$ total of the data that bigger variant

$$
\mathrm{n}_{2}=\text { total of the data that smaller variant }{ }^{2}
$$

Hypothesis is rejected if $\mathrm{F} \leq \mathrm{F}_{2}^{1} a\left(\mathrm{n}_{1}-1\right)\left(1=\mathrm{n}_{2}-1\right)$, while if $\mathrm{F}_{\text {count }}>$ $\mathrm{F}_{\text {table }}$ hypothesis is accepted. It determined with significant level 5\% (0.05) and dk numerator was ( $n_{1}-1$ ), while dk detominators is $\left(n_{2}-1\right)$. The hypothesis are:

Ha: The distribution of class is homegenous.
Ho: The distribution of class is not homegenous.
Based on the explanation above, the researcher choose VIII-5 as a experimental class (consist of 28 students) and VIII-6 as a control class (consist of 28 students). So, total of samples are 56 students.

## D. The Instrument of the Research

In this research, the researcher uses test as the instrument to collect the data of students' reading comprehension. The test that is used in this research is multiple choice test consists of four options $a, b, c$, and $d$.

Table 4
The Indicators Reading Comprehension Test of Pre- Test

| NO | Indicators of <br> Reading Assessment | Item | Number of <br> Items | Score | Total <br> Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | Able to identify the <br> social function of the <br> text | 2 | 10,18 | 5 | 10 |
| 2. | Able to identify the <br> character, place, and <br> time | 6 | $1,2,9,12,15$, <br> 19 | 5 | 30 |

[^22]| NO | Indicators of <br> Reading Assessment | Item | Number of <br> Items | Score | Total <br> Score |
| :---: | :--- | :---: | :---: | :---: | :---: |
| 3. | Able to identify the <br> problem | 3 | $3,7,14$ | 5 | 15 |
| 4. | Able to identify the <br> resolution | 2 | 13,20 | 5 | 10 |
| 5. | Able to identify the <br> coda | 3 | $4,11,17$ | 5 | 15 |
| 6. | Able to identify the <br> vocabulary in the <br> context | 4 | $5,6,8,16$ | 5 | 20 |
| Total | 20 |  | 5 | 100 |  |

Table 5
The Indicator of Reading Comprehension Test of Post-Test

| NO | Indicators of <br> Reading Assessment | Item | Number of <br> Items | Score | Total <br> Score |
| :---: | :--- | :---: | :---: | :---: | :---: |
| 1. | Able to identify the <br> social function of the <br> text | 3 | $8,13,14$ | 5 | 15 |
| 2. | Able to identify the <br> character, place, and <br> time | 6 | $1,4,5,7,10,18$ | 5 | 30 |
| 3. | Able to identify the <br> problem | 3 | $2,9,19$ | 5 | 15 |
| 4. | Able to identify the <br> resolution | 2 | 11,16 | 5 | 10 |
| 5. | Able to identify the <br> coda | 2 | 6,15 | 5 | 10 |
| 6. | Able to identify the <br> vocabulary in the <br> context | 4 | $3,12,17,20$ | 5 | 20 |
| Total | 20 |  | 5 | 100 |  |

## E. The Validity and Reability of Instrument

## 1. The Validity

In this research, the researcher used item validity. Before validity, the test consist of 60 questions of multiple choice questions, 30 for pre-
test and 30 for post-test. Meanwhile, after validity the test consist of 40 questions, 20 for pre-test and 20 for post-test.

The formula of $r$ point biserial can be used as follows:

$$
r_{p b i}=\frac{M_{p-M_{t}}}{S D_{t}} \sqrt{\frac{\mathrm{p}}{\mathrm{q}}}
$$

Where:
$\mathrm{r}_{\mathrm{pbi}}$ : coefficient item validity
$\mathrm{M}_{\mathrm{p}}$ : mean score
$M_{t} \quad$ : mean score of the total score
$\mathrm{SD}_{\mathrm{t}}$ : Standard Deviation of the total score
p : Presentation of the right answer of the item tested validity
$\mathrm{q} \quad$ : Presentation of the wrong answer of the item tested validity. ${ }^{3}$
2. The Reliability

An instrument of the research must be reliable. To get the reliability of the test, the researcher uses K-R. 20 formula. The formula is as follows:

$$
\mathrm{R}_{11}=\left(\frac{k}{k-1}\right)\left(\frac{s_{t^{2}}-\sum p q}{s_{t^{2}}}\right)
$$

Where:
$\mathrm{R}_{11} \quad$ : Reliability of the instrument
$\mathrm{N} \quad$ : Total of question
St : Variants total
$\sum p q \quad:$ Total of the result times p and q
$p \quad:$ Proportion of Subject who is right Answer
$q \quad:$ Proportion of Subject who is Wrong Answer ${ }^{4}$

[^23]Reliability is a good character of the test that refers to the consistency of the measurement. The test is reliable if $\mathrm{r}_{\text {count }}>\mathrm{r}_{\text {table }}$ by using formulation K-R. 20 .

## F. The Procedures of the Research

In collecting data the researcher use test for students. The kind of the test is multiple choice test. In giving the test, it divide into two kinds; pretest and post-test. The procedure as bellow:

## 1. Pre-test

It is a test that is given before doing the treatment to the students. It is needed to know the students' ability in experiment and control class before the researcher give the treatment to experimental class. It is also used to find out the homogeneity and normality level of the sample. The researcher uses some steps in giving pre-test. They are:
a. Prepare 20 items of the multiple choice test.
b. Distribute the test paper to both of classes; experimental and control class.
c. Explain what the students need to do
d. Give the times to the students to answer the test.
e. Collect the students' test paper.
f. Check the answer and counts the students' score.

## 2. Treatment

After giving the pre-test, the students are given the treatment. The experimental class is taught by using Story Mapping technique, while the
control class is taught by conventional technique. The researcher uses some procedures in treatment class. They are:
a. For the beginning, researcher starts the learning activity with greeting. Then, ask the students to take a pray.
b. Giving the example of narrative text and the parts of the story to the students.
c. Each students read the narrative text that is given by the teacher.
d. Introduce the story mapping technique by drawing it on the board and explain how to use it.
e. Give the example of story mapping technique from the text that they have been read.
f. Next, ask the students to read another narrative text and make in a form of story mapping.
g. Give feed back to students' task.

## 3. Post-test

After giving treatment, the researcher conducts a post-test. The function is to know the difference score of experiment and control class and the effect of treatment, whether it has an effect or not. The researcher uses some steps in giving pre-test. They are:
a. Prepare 20 items of the multiple choice test.
b. Distribute the test paper to both of classes; experimental and control class.
c. Explain what the students need to do.
d. Give the times to the students to answer the questions.
e. Collect the students' test paper.
f. Check the answer and counts the students' score.

## G. The Technique of Data Analysis

The technique of data analysis that is used by the researcher are:

## 1. Requirement Test

a. Normality Test

To know the normality, the researcher use Chi Square formula. The formula is as follows:

$$
x^{2}=\sum\left(\frac{\left(f_{o}-f e\right) 2}{f e}\right)
$$

Where: $\quad x^{2}=$ value of Chi Square

$$
\begin{aligned}
& \mathrm{f}_{\mathrm{o}}=\text { observed frequency } \\
& \mathrm{f}_{\mathrm{e}}=\text { expected frequency }^{5}
\end{aligned}
$$

b. To find the homogeneity, the researcher use Harley test. The formula is as follows:

$$
\mathrm{F}=\frac{\text { The biggest variant }}{\text { The smallest variant }}
$$

Where: $\quad \mathrm{n}_{1}=$ total of the data that bigger variant

$$
\mathrm{n}_{2}={ }^{\text {total }} \text { of the data that smaller variant }{ }^{6}
$$

Hypothesis is rejected if $\mathrm{F} \leq \mathrm{F} \frac{1}{2} a\left(\mathrm{n}_{1}-1\right)\left(1=\mathrm{n}_{2}-1\right)$, while if $\mathrm{F}_{\text {count }}$ $>\mathrm{F}_{\text {table }}$ hypothesis is accepted. It determined with significant level

[^24]$5 \%$ ( 0.05 ) and dk numerator was ( $\mathrm{n}_{1}-1$ ), while dk detominators is $\left(\mathrm{n}_{2}-1\right)$.

## 2. Hypothesis Test

If the data is normal and homogenous, the formula that must be used to test hypothesis is t -test. The formula is as follows:

$$
T t=\frac{X_{1}-X_{2}}{\sqrt{\left(\frac{\left(n_{1}-1\right) s_{1}^{2}+\left(n_{2}-1\right) s_{2}^{2}}{n_{1}+n_{2}-2}\right)\left(\frac{1}{n_{1}}+\frac{1}{n_{2}}\right)}}
$$

Where:
t : the value which the statistical significant
$\overline{\mathrm{X}_{1}}$ : the average score of the experimental class
$\overline{\mathrm{X}_{2}}$ : the average score of the control class
$\mathrm{s}_{1}{ }^{2}$ : deviation standard of the experimental class
$\mathrm{s}_{2}{ }^{2}$ : deviation standard of the control class
$\mathrm{n}_{1}$ : number of experimental class
$\mathrm{n}_{2}$ : number of control class ${ }^{7}$

[^25]
## CHAPTER IV

## DATA ANALYSIS

As mentioned in earlier chapter, in order to find out the effect of using Story Mapping Technique on students' reading comprehension, the researcher had calculated the data using pre-test and post-test. The researcher used the formulation of T-test to test the hypothesis. Next, the researcher described the data as follow:

## A. The Description of Data

## 1. The Description of Data before Using Story Mapping Technique

a. Score of Pre-test Experimental Class

In pre-test of experimental class, the researcher calculated the result that had been gotten by the students in answering the question (test). The score of pre-test experimental class can be seen in the following table:

Table 6
The Score of Experimental Class in Pre-test

| Total | 1155 |
| :---: | :---: |
| Highest score | 55 |
| Lowest score | 25 |
| Mean | 40.75 |
| Median | 42.85 |
| Modus | 40.75 |
| Range | 30 |
| Interval | 5 |
| Standard deviation | 9.31 |
| Variants | 90.04 |

Based on the above table the total score of experimental class in pre-test was 1155 , mean was 40.75 , standard deviation was 9.31 , variants was 90.04 , median was 42.85 , range was 30 , modus was 40.75, interval was 5 . The researcher got the highest score was 55 and the lowest score was 25 . It can be seen on appendix 16 and 17 .

Then, the computed of the frequency distribution of the students' score of experiment class could be applied into table frequency distribution as follow:

Table 7
Frequency Distribution of Students' Score

| No | Interval | Frequency | Percentages |
| :---: | :---: | :---: | :---: |
| 1 | $25-29$ | 3 | $11 \%$ |
| 2 | $30-34$ | 2 | $7 \%$ |
| 3 | $35-39$ | 5 | $18 \%$ |
| 4 | $40-44$ | 6 | $21 \%$ |
| 5 | $45-49$ | 3 | $11 \%$ |
| 6 | $50-54$ | 5 | $18 \%$ |
| 7 | $55-59$ | 4 | $14 \%$ |
| $i=5$ |  |  | 28 |

From the table above, the students' score in class interval between $25-29$ was 3 students ( $11 \%$ ), class interval between $30-34$ was 2 students ( $7 \%$ ), class interval between $35-39$ was 5 students (18\%), class interval between $40-44$ was 6 students ( $21 \%$ ), class interval between 45 - 49 was 3 students (11\%), class interval between $50-54$ was 5 students (18\%) and the last class interval between $55-$ 59 was 4 students ( $14 \%$ ).

In order to get description of the data clearly and completely, the researcher presents them in histogram on the following figure:


From the histogram of students' score of experimental class in pre test shown that the lowest interval $25-29$ was 3 students and highest interval 55 - 59 was only 4 students. Histogram also shown that the highest frequency in interval $40-44$ was 6 students.

## b. Score of Pre-Test Control Class

In pre-test of control class, the researcher calculated the result that had been gotten by the students in answering the question (test). The score of pre-test control class can be seen in the following table:

Table 8
The Score of Control Class in Pre-test

| Total | 860 |
| :---: | :---: |
| Highest score | 55 |
| Lowest score | 15 |
| Mean | 32.7 |
| Median | 30.25 |
| Modus | 30.46 |
| Range | 40 |
| Interval | 7 |


| Standard deviation | 10.43 |
| :---: | :---: |
| Variants | 127.2 |

Based on the above table the total score of control class in pretest was 860 , mean was 32.7 , standard deviation was 10.43 , variants was 127.2 , median was 30.25 , range was 40 , modus was 30.46 , interval was 7. The researcher got the highest score was 55 and the lowest score was 15. It can be seen on appendix 16 and 17.

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
Frequency Distribution of Students' Score

| No | Interval | Frequency | Percentages |
| :---: | :---: | :---: | :---: |
| 1 | $15-21$ | 6 | $21 \%$ |
| 2 | $22-28$ | 6 | $21 \%$ |
| 3 | $29-35$ | 8 | $29 \%$ |
| 4 | $36-42$ | 3 | $11 \%$ |
| 5 | $43-49$ | 3 | $11 \%$ |
| 6 | $50-56$ | 2 | $7 \%$ |
|  | $i=7$ | 28 | $100 \%$ |

From the table above, the students' score in class interval between 15 - 21 was 6 students ( $21 \%$ ), class interval between $22-28$ was 6 students ( $21 \%$ ), class interval between 29 - 35 was 8 students (29\%), class interval between $36-42$ was 3 students ( $11 \%$ ), class interval between 43 - 49 was 3 students ( $11 \%$ ), and the last class interval between 50 - 56 was 2 students ( $7 \%$ ).

In order to get description of the data clearly and completely, the researcher presents them in histogram on the following figure:


From the histogram of students' score of control class in pre test shown that the lowest interval $15-21$ was 6 students and highest interval $50-56$ was only 2 students. Histogram also shown that the highest frequency in interval $29-35$ was 8 students.

## 2. The Description of Data After Using Story Mapping Technique

a. Score of Post-Test Experimental Class

In post-test of experimental class, the researcher calculated the result that had been gotten by the students in answering the question (test) after the researcher did the treatment by using Story Maping Technique. The score of post-test experimental class can be seen in the following table:

Table 10
The Score of Experimental Class in Post-test

| Total | 2230 |
| :---: | :---: |
| Highest score | 95 |


| Lowest score | 60 |
| :---: | :---: |
| Mean | 81.1 |
| Median | 79.75 |
| Modus | 78.7 |
| Range | 35 |
| Interval | 6 |
| Standard deviation | 8.52 |
| Variants | 79.49 |

Based on the above table the total score of experiment class in post-test was 2230 , mean was 81.1 standard deviation was 8.52 , variants was 79.49 , median was 79.75 , range was 35 , modus was 78.7 , interval was 6 . The researcher got the highest score was 95 and the lowest score was 60 . It can be seen on appendix 20 and 21.

Then, the computed of the frequency distribution of the students' score of experiment class can be applied into table frequency distribution as follow:

Table 11
Frequency Distribution of Students' Score

| No | Interval | Frequency | Percentages |
| :---: | :---: | :---: | :---: |
| 1 | $60-65$ | 2 | $7 \%$ |
| 2 | $66-71$ | 2 | $7 \%$ |
| 3 | $72-77$ | 7 | $25 \%$ |
| 4 | $78-83$ | 8 | $29 \%$ |
| 5 | $84-89$ | 4 | $14 \%$ |
| 6 | $90-95$ | 5 | $18 \%$ |
| $i=6$ |  | 28 | $100 \%$ |

From the table above, the students' score in class interval between $60-65$ was 2 students ( $7 \%$ ), class interval between $66-71$
was 2 students ( $7 \%$ ), class interval between $72-77$ was 7 students (25\%), class interval between $78-83$ was 8 students (29\%), class interval between $84-89$ was 4 students (14\%), and the last class interval between 90 - 95 was 5 students (18\%).

In order to get description of the data clearly and completely, the researcher presents them in histogram on the following figure:


From the histogram of students' score of experimental class in post test shown that the lowest interval $60-65$ was 2 students and highest interval 90 - 95 was only 5 students. Histogram also shown that the highest frequency in interval $78-83$ was 8 students.

## b. Score of Post-Test Control Class

In post-test of control class, the researcher calculated the result that had been gotten by the students in answering the question (test) after the researcher taught the reading comprehension by using Conventional Technique. The score of post-test control class can be seen in the following table:

Table 12
The Score of Control class in Post-test

| Total | 1655 |
| :--- | :---: |
| Highest score | 75 |
| Lowest score | 45 |
| Mean | 62.85 |
| Median | 62.5 |
| Modus | 57 |
| Range | 30 |
| Interval | 5 |
| Standard deviation | 8.1 |
| Variants | 68.61 |

Based on the above table the total score of control class in posttest was 1655 , mean was 62.85 , standard deviation was 8.1 , variants was 68.61 , median was 62.5 , range was 30 , modus was 57 , interval was 5 . The researcher got the highest score was 75 and the lowest score was 45 . It can be seen on appendix 20 and 21.

Then, the computed of the frequency distribution of the students' score of control class can be applied into table frequency distribution as follow:

Table 13
Frequency Distribution of Students' Score

| No | Interval | Frequency | Percentages |
| :---: | :---: | :---: | :---: |
| 1 | $45-49$ | 3 | $11 \%$ |
| 2 | $50-54$ | 3 | $11 \%$ |
| 3 | $55-59$ | 5 | $18 \%$ |
| 4 | $60-64$ | 8 | $29 \%$ |
| 5 | $65-69$ | 5 | $18 \%$ |
| 6 | $70-74$ | 2 | $7 \%$ |
| 7 | $75-79$ | 2 | $7 \%$ |
| $i=5$ |  |  | 28 |

From the table above, the students' score in class interval between $45-49$ was 3 students ( $11 \%$ ), class interval between $50-54$ was 3 students (11\%), class interval between $55-59$ was 5 students (18\%), class interval between $60-64$ was 8 students ( $29 \%$ ), class interval between $65-69$ was 5 students ( $18 \%$ ), interval between $70-$ 74 was 2 students ( $7 \%$ ), and the last class interval between $75-79$ was 2 students (7\%).

In order to get description of the data clearly and completely, the researcher presents them in histogram on the following figure:


From the histogram of students' score of control class in post test shown that the lowest interval $45-49$ was 3 students and highest interval $75-79$ was 2 students. Histogram also shown that the highest frequency in interval $60-64$ was 8 students.

## 3. The Description of Comparison Data of Pre-Test and Post-Test

## a. The Comparison Data of Pre-Test and Post-Test in Experimental

 ClassThe comparison data between pre-test and post-test of experimental class can bee seen in the following table:

Table 14
The Comparison Data of Experimental Class in Pre-test and Post-Test

| Description | Pre-Test | Post-Test |
| :---: | :---: | :---: |
| Total | 1155 | 2230 |
| Highest score | 55 | 95 |
| Lowest score | 25 | 60 |
| Mean | 40.75 | 81.1 |
| Median | 42.85 | 79.75 |
| Modus | 40.75 | 78.7 |
| Range | 30 | 35 |
| Interval | 5 | 6 |
| Standard deviation | 9.31 | 8.52 |
| Variants | 90.04 | 79.49 |

Based on students' answers in experimental of pre-test and posttest, the researcher has calculated the students' score and most of students both of classes were low in reading. Experimental class consisted of 28 students (VIII 5). The lowest score in pre-test was 25 whereas the highest score was 55 and the lowest score in post-test was 60 whereas the highest score was 95 .

In order to get the pre-test and post-test data description of experimental class clearly and completely, the researcher presents the histogram on the following histogram:


From the histogram above, Pre-test frequency of students' score from 25 up to 36 was $5 ; 37$ up to 48 was $14 ; 49$ up to 60 was 9 student. In post-test, the frequency of students' score from 61 up to 72 was 4 ; 73 up to 84 was 19 ; and 85 up to 96 was 5 students. The histogram shows that the highest interval (85-96) was 5 students and the lowest interval (25-36) was 5 students. So the students' scores of experimental class in post-test was higher than pre-test.

## b. The Comparison Data of Pre-test and Post Test in Control Class

The comparison data between pre-test and post-test of control class can bee seen in the following table:

Table 15
The Comparison Data of Control Class
in Pre-test and Post-Test

| Description | Pre-Test | Post-Test |
| :---: | :---: | :---: |
| Total | 860 | 1655 |
| Highest score | 55 | 75 |
| Lowest score | 15 | 45 |


| Mean | 32.7 | 62.85 |
| :---: | :---: | :---: |
| Median | 30.25 | 62.5 |
| Modus | 30.46 | 57 |
| Range | 40 | 30 |
| Interval | 7 | 5 |
| Standard deviation | 10.43 | 8.1 |
| Variants | 127.2 | 68.61 |

Based on students' answers in control class of pre-test and posttest has calculated the students' score and most of students both of classes were low in reading. Control class consisted of 28 students (VIII 6). The lowest score in pre-test was 15 whereas the highest score was 55 and the lowest score in post-test was 45 whereas the highest score was 75 .

In order to get the pre-test and post-test data description of control class clearly and completely, the researcher presents the histogram on the following histogram:

Figure 8: Comparison between Pre-test and Post-test in Control Class


From the histogram above, Post-test frequency of students' score from 15 up to 28 was $12 ; 29$ up to 42 was $11 ; 43$ up to 56 was 5 students. In post-test, the frequency of students' score from 43 up to 56 was $6 ; 57$ up to 70 was 18 ; and 71 up to 84 was 4 students.

## c. The Comparison Data between Experimental and Control Class

## in Post-Test

Based on students' answers in post-test in experimental and control class, the researcher has calculated the students' score and most of students both of classes increased. Experimental class consisted of 28 students (VIII 5), the lowest score was 60 whereas the highest score was 95 . Then, most of students got raising score and their score increased very significant. Control class consisted of 28 students (VIII 6), the lowest score was 45 whereas the highest score was 75 . Studens' score increased too but not significant.

In order to get easier description of data, the researcher presented them in histogram. It can be seen on following histogram:


From histogram above, in experimental class, the frequency of students' score from 67 up to 77 was $11 ; 78$ up to 88 was $12 ; 89$ up to 99 was 5 students. In control class, the frequency of students' score from 45 up to 55 was $6 ; 56$ up to 66 was 13 and 67 up to 77 was 9 students.

## B. Technique of Data Analysis

1. Requirement Test
a. Normality and Homogeneity Pre-Test
1) Normality of Experimental Class and Control Class in PreTest

Table 16
Normality and Homogeneity in Pre-Test

| Class | Normality <br> Test |  | Homogeneity <br> Test |  |
| :--- | :---: | :---: | :---: | :---: |
|  | $\mathrm{x}_{\text {count }}$ | $\mathrm{x}_{\text {table }}$ | $\mathrm{f}_{\text {count }}$ | $\mathrm{f}_{\text {table }}$ |
| Experiment Class | -1.81 | 11.070 | $1.41<2.66$ |  |
| Control Class | -10.65 | 11.070 |  |  |

Based on the above table researcher calculation, the score of experimental class $\mathrm{Lo}=-1.81<\mathrm{Lt}=11.070$ with $\mathrm{n}=28$ and control class $\mathrm{Lo}=-10.65<\mathrm{Lt}=11.070$ with $\mathrm{n}=28$, and real level $\alpha 0.05$. Cause Lo< Lt in the both class. So, $\mathrm{H}_{\mathrm{a}}$ was accepted. It means that experimental class and control class were distributed normal. It can be seen in appendix 16 and 17.
2) Homogeneity of Experimental Class and Control class in PreTest

The coefficient of $\mathrm{F}_{\text {count }}=1.41$ was compared with $\mathrm{F}_{\text {table }}$. Where $\mathrm{F}_{\text {table }}$ was determined at real $\alpha 0.05$, and the different numerator $\mathrm{dk}=\mathrm{n}-1=28-1=27$ and denominator $\mathrm{dk} \mathrm{n}-1=28-1=$ 27. So, by using the list of critical value at F distribution is got $\mathrm{F}_{0.05}$ $=2.66$. It showed that $\mathrm{F}_{\text {count }} 1.41<\mathrm{F}_{\text {table }} 2.66$. So, the researcher concluded that the variant from the data of the Students' Reading comprehension at SMP Negeri 5 Padangsidimpuan by experimental class and control class was homogenous. The calculation can be seen on the appendix 17.

## b. Normality and Homogeneity Post-Test

1) Normality of Experimental Class and Control class in PostTest

Table 17
Normality and Homogeneity in Post-Test

| Class | Normality <br> Test |  | Homogeneity <br> Test |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $\mathrm{x}_{\text {count }}$ | $\mathrm{x}_{\text {table }}$ | $\mathrm{f}_{\text {count }}$ | $\mathrm{f}_{\text {table }}$ |


| ExperimentalClass | -6.12 | 11.070 | $1.15<2.66$ |
| :--- | :---: | :---: | :---: |
| Control Class | -13.83 | 11.070 |  |

Based on the table above researcher calculation, the score of experiment class $L o=-6.12<L t=11.070$ with $n=28$ and control class $\mathrm{Lo}=-13.83<\mathrm{Lt}=11.070$ with $\mathrm{n}=28$, and real level $\alpha 0.05$. Cause $\mathrm{Lo}<\mathrm{Lt}$ in the both class. $\mathrm{So}, \mathrm{H}_{\mathrm{a}}$ was accepted. It means that experimental class and Control class were distributed normal. It can be seen in appendix 20 and 21.
2) Homogeneity of Experimental Class and Control class in Posttest

The coefficient of $\mathrm{F}_{\text {count }}=1.15$ was compared with $\mathrm{F}_{\text {table }}$. Where $\mathrm{F}_{\text {table }}$ was determined at real $\alpha 0.05$, and the different numerator $\mathrm{dk}=\mathrm{n}-1=28-1=27$ and denominator $\mathrm{dk} \mathrm{n}-1=28-1=$ 27. So, by using the list of critical value at F distribution is got $\mathrm{F}_{0.05}=2.66$. It showed that $\mathrm{F}_{\text {count }} 1.15<\mathrm{F}_{\text {table }}$ 2.66. So, the researcher concluded that the variant from the data of the Students' Reading comprehension at SMP Negeri 5 Padangsidimpuan by experimental class and Control class was homogenous. The calculation can be seen on the appendix 21 .

## 2. Hypothesis Test

After calculating the data of post-test, researcher found that posttest result of experimental class and control class is normal and homogenous. Based on the result, researcher used parametric test by
using T-test to analyze the hypothesis. Hypothesis alternative $\left(\mathrm{H}_{\mathrm{a}}\right)$ of the research was "There is the significant effect of using Story Mapping Technique to comprehend narrative text at grade VIII students of SMP Negeri 5 Padangsidimpuan". Hyphotesis null (Ho) of the research was "There is no significant effect of using Story Mapping Technique to comprehend narrative text at grade VIII students of SMP Negeri 5 Padangsidimpuan". Ha is accepted if $\mathrm{t}_{\text {count }}$ is higher than $\mathrm{t}_{\text {table }}$. In this case, the researcher found that $\mathrm{t}_{\text {count }}>\mathrm{t}_{\text {table }}$ which means that there was the significant effect of using Story Mapping Technique to comprehend narrative text at grade VIII students of SMP Negeri 5 Padangsidimpuan. The calculation can be seen on the appendix 23.

Table 18
Result of T-test from the Both Averages

| Pre-test | Post-test |  |  |
| :--- | :--- | :--- | :--- |
| $\mathrm{t}_{\text {count }}$ | $\mathrm{t}_{\text {table }}$ | $\mathrm{t}_{\text {count }}$ | $\mathrm{t}_{\text {table }}$ |
| -2.92 | 1.67356 | 8.03 | 1.67356 |

$\mathrm{H}_{\mathrm{a}}: \mu_{1}>\mu_{2}$
Where:
$\mathrm{H}_{\mathrm{a}}: \mu_{1}>\mu_{2}$ "There was the significant effect of using Story Mapping Technique to comprehend narrative text at grade VIII students of SMP Negeri 5 Padangsidimpuan".

Based on researcher calculation, researcher found that $\mathrm{t}_{\text {count }} 8.03$ while $\mathrm{t}_{\text {table }}$
1.67356 with opportunity $(1-\alpha)=1-5 \%=95 \%$ and $d k=n_{1}+n_{2}-2=28$
$+28-2=54$. Cause $\mathrm{t}_{\text {count }}>\mathrm{t}_{\text {table }}(8.03>1.67356)$, it means that hypothesis $\mathrm{H}_{\mathrm{a}}$ was accepted and $\mathrm{H}_{0}$ was rejected. So, there was the significant effect of
using Story Mapping Technique to comprehend narrative text at grade VIII students of SMP Negeri 5 Padangsidimpuan".

## C. Discussion

Based on the result of this research, the researcher has proved what had been stated by Malley and Pierce that story maps outline the structure of a story with specific headings (such as setting, main character, events). Students filled the story mapping with single word or phrase each heading. Story maps are particularly appropriate for students, who may not be familiar with the discourse structure of a text. ${ }^{1}$ The theory stated that Story Mapping is an appropriate technique for reading comprehension, and in this research, the researcher found that the mean score of students' reading comprehension before using Story Mapping was 40.75 and after using Story Mapping was 81.1. It meant there was the effect of using Story Mapping on reading comprehension.

The result above supported the previous research by some researchers. First, Novia Uswatun Hasanah on her thesis got the mean score in first cycle was 67 and second cycle was $89 .{ }^{2}$ Next, Norma Ita Scholichah on her thesis she got mean score of pre-test was 53.57 after applying Story Mapping Technique the mean score of post-test was $65.60 .{ }^{3}$ Then, Eka Sustri Harida

[^26]on her journal got the mean score in first cycle was 70.33 and the second cycle was $80.83 .{ }^{4}$ It shows the Story Mapping can improve students' reading comprehension.

Meanwhile, the researcher got the mean score of pre-test of the experimental class was 40.75 . The mean score of pre-test result was lower than Norma Ita Sholichah, Novia Uswatun Hasanah and Eka Sustri Harida's result. From the above description, it can be seen that the highest mean score was gotten by Eka Sustri Harida where the mean score in first cycle was 70.33 and the lowest mean score of pre-test of the experimental group was gotten by the researcher on this thesis where the mean score of pre-test was 40.75 .

Then, for the post-test result the researcher got the mean score of posttest of the experimental class was 81.1. The mean score of post-test result was lower than Novia Uswatun Hasanah's result and was higher than Eka Sustri Harida and Norma ita Sholichah's result. From the above description, it can be seen that the highest mean score was gotten by the Novia Uswatun Hasanah where the mean score in second cycle was 95 and the lowest mean score of post-test of the experimental group was gotten by Norma Ita Sholichah where the mean score of post-test was 65.60 .

From the above explanation, there was the increasing from the pre-test score to post-test score after using the technique among the related findings. Novia Uswatun Hasanah got the increasing 22, Norma Ita Sholichah got the

[^27]increasing 12.03, and Eka Sustri Harida got the increasing 10.5. Meanwhile the researcher got the increasing was 40.35 .

Based on the result, the researcher has got the effect of Story Mapping Technique on students' reading comprehension. Eka Sustri Harida, found that $\mathrm{t}_{\text {count }}=5.58>\mathrm{t}_{\text {table }}=2.045$. The researcher also found that $\mathrm{t}_{\text {count }}$ is higher than $\mathrm{t}_{\text {table }}$ where $t_{\text {count }}$ was 8.03 and $t_{\text {table }}$ was 1.67356 ( $8.03>1.67356$ ). It can be seen among the researches that the using of Story Mapping Technique gave the effect to students' reading comprehension especially at grade VIII Students of SMP Negeri 5 Padangsidimpuan. It means the theory has been proved where the students able to comprehend the reading material. Therefore, Story Mapping Technique has given the significant effect to the research that has been done by the researcher or the other researcher who mentioned in related finding and Story Mapping Technique is highly effective to help the English teacher in teaching learning process especially in reading comprehension.

## D. Threats of the Research

The researcher found the threats of the research as follows:

1. The students were not serious in answering the pre-test and post-test. Some of them still were cheating. It made the answer of the test was not pure because they did not do it by themselves.
2. The students were noisy while the learning process. They were not concentrating in following the learning process. Some of them talked to their friends and some of them did something outside the teacher's rule.
3. The learning implementation is not effective because of the limited time.

## CHAPTER V

## CONCLUSION AND SUGGESTION

## A. Conclusion

Based on the result of the research, the conclusions of this research are:

1. Students' reading comprehension at grade VIII SMP Negeri 5 Padagsidimpuan before using Story Mapping Technique were still low. It can be seen from the students' mean score of pre-test was 40.75 in experimental class and 32.7 in control class.
2. The students' ability of the grade VIII students at SMP Negeri 5 Padangsdimpuan in comprehending narrative text by using Story Mapping Technique had higher score. It can be seen from the students' score of post-test, the higher score of post-test using Story Mapping (experiment class) is 95 and the lowest score is 60 .
3. It is found that $\mathrm{t}_{\text {count }}$ was higher than $\mathrm{t}_{\text {table }} 8.03>1.67356$ which means $H_{a}$ was accepted. Hence, there was significant effect of using Story Mapping Technique to comprehend narrative text at grade VIII students of SMP Negeri 5 Padangsidimpuan.

## B. Suggestion

The researcher got much information in English teaching and learning after finishing this research. From this research, researcher saw some things need to be improved. It makes the researcher give some suggestions, as follow:

1. For the English teacher, it is hoped to use Story Mapping Technique in teaching reading narrative text. This research and others proved that Story Mapping Technique was effective to be applied in classroom.
2. For the students, it is hoped to use Story Mapping Technique because it can make them to be able to comprehend the text.
3. For the next researcher, this research can help the other researcher who will conduct further research in the same topic. The other researcher can get the information from this experimental research, even do a comparison between this research and another with the similar variable.
4. For the English lecturer, it is hoped to teach this technique so that the university students who will become teachers can apply this technique while they are teaching reading narrative text.

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## CURRICULUM VITAE


A. Identity
Name : Dian Sartika Simanjuntak
Registration Number : 1520300026
Place/ Date of Birthday : Sibolga/ August, ${ }^{\text {st }} 1997$
Sex : Female
Religion ..... : Islam
Address : Hutabalang, Kec. Badiri, Kab. Tap. Tengah
B. Parents

| Father's Name | : Sapri Simanjuntak |
| :--- | :--- |
| Mother's Name | : Mastika Siregar |

C. Educational Background

1. Elementary School : SDN 157625 Hutabalang 5 ..... (2009)
2. Junior High School : SMPN 1 Badiri ..... (2012)3. Senior High School : SMAN 3 Sibolga(2015)
3. Institute : IAIN Padangsidimpuan(2019)

## Appendix 1

## Experimental Class

## RENCANA PELAKSANAAN PEMBELAJARAN <br> (RPP)

Nama Sekolah : SMP Negeri 5 Padangsidimpuan
Mata Pelajaran : Bahasa Inggris
Kelas/Semester : VIII/1
Materi Pokok : Narrative Text
Alokasi waktu $\quad: 4 \times 45$ menit ( $2 \times$ Pertemuan)

## A. Kompetensi Inti

1. Menghayati dan mengamalkan ajaran agama yang dianutnya.
2. Menghargai dan menghayati perilaku jujur, disiplin, tanggungjawab, peduli (toleransi, gotong royong), santun, percaya diri, dalam berinteraksi secara efektif dengan lingkungan sosial dan alam dalam jangkauan pergaulan dan keberadaannya.
3. Memahami dan menerapkan pengetahuan (faktual, konseptual, dan prosedural) berdasarkan rasa ingin tahunya tentang ilmu pengetahuan, teknologi, seni, budaya terkait fenomena dan kejadian tampak mata.
4. Mengolah, menyaji, dan menalar dalam ranah konkret (menggunakan, mengurai, merangkai, memodifikasi, dan membuat) dan ranah abstrak (menulis, membaca, menghitung, menggambar, dan mengarang) sesuai dengan yang dipelajari di sekolah dan sumber lain yang sama dalam sudut pandang/teori.

## B. Kompetensi Dasar

3.14 Memahami fungsi sosial, struktur teks, dan unsur kebahasaan dari teks naratif berbentuk fabel, sesuai dengan konteks penggunaannya.
4.18 Menangkap makna teks naratif lisan dan tulis, berbentuk fabel pendek dan sederhana penggunaannya.

## C. Indikator

## Pengetahuan

3.14.1 Siswa terampil memahami teks naratif, berbentuk fabel pendek dan sederhana untuk memperoleh hiburan.
3.14.2 Menghibur dan mengajarkan nilai-nilai luhur melalui cerita dengan tokoh binatang.

## Keterampilan

4.18.1 Siswa terampil menanyakan teks naratif, berbentuk fabel pendek dan sederhana untuk memperoleh hiburan.
4.18.2 Menggunakan ungkapan dengan struktur teks yang runtut dengan unsur kebahasaan yang benar dan sesuai konteks.

## D. Materi Pembelajaran

Teks naratif, berbentuk fabel pendek dan sederhana

## Fungsi sosial

Memperoleh hiburan, menghibur dan mengajarkan nilai-nilai luhur melalui cerita dengan tokoh binatang.

## Struktur text

(gagasan utama dan informasi rinci)
a. Memperkenalkan tokoh, tempat, waktu, terjadinya cerita (orientasi).
b. Memberikan penilaian (evaluasi) tentang situasi dan kondisi terjadinya cerita.
c. Memaparkan krisis yang terjadi terhadap tokoh utama (komplikasi)
d. Memaparkan akhir cerita, di mana krisis berakhir (resolusi) dengan bahagia atau sedih
e. Memberikan alasan atau komentar umum (reorientasi), opsional.

## Unsur kebahasaan

(1) Tata bahasa: Simple Past tense, Past Continuous Tense
(2) Kalimat langung dan tidak langsung
(3) Kosa kata: tokoh binatang dalam fabel, tempat dan benda-benda terkait tokoh
(4) Adverbia penghubung waktu: first, then, after that, before, at last, finally, dsb.
(5) Adverbia dan frasa preposisional penunjuk waktu: a long time ago, one day, in the morning, the next day, immediately, dsb.
(6) Penggunaan nominal singular dan plural secara tepat, dengan atau tanpa $a$, the, this, those, $m y$, their, dsb secara tepat dalam frasa nominal
(7) Ucapan, tekanan kata, intonasi
(8) Ejaan dan tanda baca
(9) Tulisan tangan

## E. Langkah-langkah Pembelajaran

Pertemuan 1
a. Kegiatan Pendahuluan

- Guru membuka kelas dengan mengucapkan basmalah dan salam.
- Absensi dan mempersilahkan siswa untuk membaca doa belajar sesuai agama dan kepercayaan masing-masing.
- Guru menjelaskan tujuan pembelajaran yang akan dicapai.
b. Kegiatan Inti

Modelling Phase

| $0^{1}$ | Aktivitas Guru | Aktivitas Siswa |
| :---: | :---: | :---: |
|  | Guru memberikan penjelasan tentang bagian-bagian teks naratif. | Siswa mendengarkan penjelasan guru. |
|  | Guru membagikan teks naratif dan membuka background knowledge siswa tentang teks tersebut. | Siswa membaca <br> judul teks, kemudian <br> mengingat gambaran <br> umum teks, lalu <br> membaca teks <br> keseluruhan.  |
|  | Guru  <br> menggambar pola <br> Story Mapping <br> papan di <br> menjelaskan setiap <br> bagian-bagian Story <br> Mapping, dan <br> memberikan contoh <br> aplikasi Story | Siswa mendengarkan dan memahami penjelasan guru. |


|  | Mapping dari teks <br> yang telah mereka <br> baca. |
| :--- | :--- | :--- |
|  |  |

## Guided Practice

| $\begin{aligned} & 1 \\ & \mathrm{o}^{1} \end{aligned}$ | Aktivitas Guru | Aktivitas Siswa |
| :---: | :---: | :---: |
|  | Guru membagikan pola Story Mapping kepada siswa. | Siswa mengisi pola Story Mapping yang dibagikan guru. |
|  | Guru memanggil salah satu siswa untuk mengidentifikasi bagian-bagian Story Mapping dan mendorong siswa untuk menyatakan pendapatnya. | Siswa merespon perintah guru. |

## Independent Practice

| Aktivitas Guru | Aktivitas Siswa |
| :---: | :---: |
| Guru meminta siswa untuk <br> membaca teks yang lain dan <br> membuat Story Mapping <br> dengan mandiri. | Siswa membaca teks dan |
| membuat Story Mapping dari |  |
| teks yang dibaca. |  |

c. Penutup

- Guru mengumpulkan hasil kerja siswa.
- Guru dan siswa membuat kesimpulan tentang materi pembelajaran.
- Guru menginformasikan rencana kegiatan pembelajaran untuk pertemuan berikutnya.
- Guru menutup pertemuan dengan hamdalah dan salam.


## Pertemuan 2

a. Kegiatan Pendahuluan

- Salam.
- Absensi.
b. Kegiatan Inti
- Mengingatkan kembali teks yang sudah dipelajari.
- Siswa menjawab soal yang diberikan guru.
c. Penutup
- Guru mengumpulkan hasil kerja siswa.
- Guru menutup pertemuan dengan hamdalah dan salam.


## F. Media Pembelajaran

Buku, Story Mapping, Worksheet.

## G. Sumber Belajar

Buku yang relevan, Kamus, dan Internet.

## H. Penilaian

| Indikat or Pencapaia n Kompeten si | Tek nik Penilaia n | Bent uk Instrume n | $\begin{aligned} & \text { Instr } \\ & \text { umen } \\ & \text { Soal } \end{aligned}$ |
| :---: | :---: | :---: | :---: |
|  | Tes tertulis |  | Read the followin g text to answer question s |

Pedoman penilaian

- Jumlah skor maksimal keseluruhan adalah 100.
- Setiap jawaban yang benar diberi skor 5. Jumlah skor keseluruhan $5 \times 20=100$.(Tes Tertulis)

| Mengetahui, | Padangsidimpuan, | 2019 |
| :--- | :--- | :--- |
| Guru Bahasa Inggris | Mahasiswa Peneliti |  |

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## Learning Material

## Narrative Text I

## Mouse deer and Crocodile

One day Mouse deer saw a lot of fruits on the other side of the river. He wanted to eat them but he could not cross the river. There were many crocodiles there, but there was no bridge across the river. The Mouse deer suddenly had an idea. He stood on the river side and called out.
"Hello. Is anybody there?"
Crocodile heard him, he swam fast to meet Mouse deer, and answered, "Hello, Mouse deer. How are you? Please come in." He pretended to be friendly. He had a plan. As soon as Mouse deer got near, he would snap him and eat him for breakfast.

But Mouse deer was standing on top of a big stone. In a proud voice he said, "Crocodile, I'm here to do the King's order. The King will give away free meat to all crocodiles. He has sent me to count the number of all the crocodiles here."

Crocodile was so happy that he forgot his plan to eat Mouse deer. "Really? How will you count us?"
"Please call all your family, relatives, friends, neighbours. Tell them to line up from here to the other side of the river," ordered Mouse deer.

Before long, all the crocodiles were in a long line across the river. Then, Mouse deer jumped onto the back of one crocodile to another, counting loudly "One, Two, Three, Four." When he got to the last crocodile he said "One hundred!" and quickly jumped up to the land.
"How many are we?" asked Crocodile.
"One hundred. Hahaha, I fooled you! Thanks for giving me a bridge to cross the river. Bye!"

## Narrative Text II

## A Wolf in Sheep Clothing

There was a big wolf. He was waiting for a chance to steal a sheep, but the shepherd and his dog continuously chased him away. After a week, the wolf began to get very hungry, and thought, "I must find a way to get close to the sheep." It was by luck that he found a sheep's skin. He carefully pulled the skin over his body so that none of his grey fur showed under the white sheep skin. Then he could walk in easily and now he was in the middle of the herd.

The big wolf knew that the most delicious sheep were the lambs, or the young sheep. He then imitated the voice of a ewe or a mother sheep. He could easily cheat a lamb who thought that he was its mother. And, the lamb followed him to the woods. There, he eventually ate the innocent lamb. For many days, he could eat as many lambs as his stomach could take. The big wolf got bigger and bigger everyday. Now he looked like the biggest sheep on earth.

One day the shepherd was planning to hold a party. He would invite many relatives and friends. So, he decided to slaughter the biggest sheep from the herd. The shepherd approached the biggest sheep very slowly and carefully. Guess who it was? The wolf, of course, who was fully covered by the white sheep skin! But, the wolf was so fat that he could not run and fight for his safety. Very easily the shepherd slaughtered him, chopped him, and then cooked him for the big party.

## Appendix 2

## Control Class

RENCANA PELAKSANAAN PEMBELAJARAN<br>(RPP)

Nama Sekolah : SMP Negeri 5 Padangsidimpuan
Mata Pelajaran : Bahasa Inggris
Kelas/Semester : VIII/2
Materi Pokok : Narrative Text
Alokasi waktu $\quad: 4 \times 45$ menit ( $2 \times$ Pertemuan)

## D. Kompetensi Inti

1. Menghayati dan mengamalkan ajaran agama yang dianutnya.
2. Menghargai dan menghayati perilaku jujur, disiplin, tanggungjawab, peduli (toleransi, gotong royong), santun, percaya diri, dalam berinteraksi secara efektif dengan lingkungan sosial dan alam dalam jangkauan pergaulan dan keberadaannya.
3. Memahami dan menerapkan pengetahuan (faktual, konseptual, dan prosedural) berdasarkan rasa ingin tahunya tentang ilmu pengetahuan, teknologi, seni, budaya terkait fenomena dan kejadian tampak mata.
4. Mengolah, menyaji, dan menalar dalam ranah konkret (menggunakan, mengurai, merangkai, memodifikasi, dan membuat) dan ranah abstrak (menulis, membaca, menghitung, menggambar, dan mengarang) sesuai dengan yang dipelajari di sekolah dan sumber lain yang sama dalam sudut pandang/teori.

## E. Kompetensi Dasar

3.15 Memahami fungsi sosial, struktur teks, dan unsur kebahasaan dari teks naratif berbentuk fabel, sesuai dengan konteks penggunaannya.
4.19 Menangkap makna teks naratif lisan dan tulis, berbentuk fabel pendek dan sederhana penggunaannya.

## F. Indikator

## Pengetahuan

3.14.1 Siswa terampil memahami teks naratif, berbentuk fabel pendek dan sederhana untuk memperoleh hiburan.
3.14.2 Menghibur dan mengajarkan nilai-nilai luhur melalui cerita dengan tokoh binatang.

## Keterampilan

4.18.1 Siswa terampil menanyakan teks naratif, berbentuk fabel pendek dan sederhana untuk memperoleh hiburan.
4.18.2 Menggunakan ungkapan dengan struktur teks yang runtut dengan unsur kebahasaan yang benar dan sesuai konteks.

## D. Materi Pembelajaran

## Teks naratif, berbentuk fabel pendek dan sederhana

## Fungsi sosial

Memperoleh hiburan, menghibur dan mengajarkan nilai-nilai luhur melalui cerita dengan tokoh binatang.

## Struktur text

(gagasan utama dan informasi rinci)
f. Memperkenalkan tokoh, tempat, waktu, terjadinya cerita (orientasi).
g. Memberikan penilaian (evaluasi) tentang situasi dan kondisi terjadinya cerita.
h. Memaparkan krisis yang terjadi terhadap tokoh utama (komplikasi)
i. Memaparkan akhir cerita, di mana krisis berakhir (resolusi) dengan bahagia atau sedih
j. Memberikan alasan atau komentar umum (reorientasi), opsional.

## Unsur kebahasaan

(10) Tata bahasa: Simple Past tense, Past Continuous Tense Kalimat langung dan tidak langsung

Kosa kata: tokoh binatang dalam fabel, tempat dan benda-benda terkait tokoh Adverbia penghubung waktu: first, then, after that, before, at last, finally, dsb. Adverbia dan frasa preposisional penunjuk waktu: a long time ago, one day, in the morning, the next day, immediately, dsb.
(15) Penggunaan nominal singular dan plural secara tepat, dengan atau tanpa $a$, the, this, those, my, their, dsb secara tepat dalam frasa nominal

Ucapan, tekanan kata, intonasi
Ejaan dan tanda baca
Tulisan tangan

## I. Langkah-langkah Pembelajaran

Pertemuan 1
a. Kegiatan Pendahuluan

- Guru membuka kelas dengan mengucapkan basmalah dan salam.
- Absensi dan mempersilahkan siswa untuk membaca doa belajar sesuai agama dan kepercayaan masing-masing.
- Guru menjelaskan tujuan pembelajaran yang akan dicapai.
b. Kegiatan Inti
- Guru memberikan teks kepada siswa.
- Guru meminta siswa untuk membaca teks yang akan dipelajari.
- Guru memberikan penjelasan teks yang telah dibaca.
- Guru meminta siswa menerjemahkan teks ke dalam bahasa Indonesia.
- Guru meminta siswa menuliskan kosakata dari teks dan menghapalnya.
- Guru meminta siswa untuk menjawab pertanyaan dari teks tersebut.
c. Penutup
- Guru mengumpulkan hasil kerja siswa.
- Guru dan siswa membuat kesimpulan tentang materi pembelajaran.
- Guru menginformasikan rencana kegiatan pembelajaran untuk pertemuan berikutnya.
- Guru menutup pertemuan dengan hamdalah dan salam.


## Pertemuan 2

a. Kegiatan Pendahuluan

- Salam.
- Absensi.
- Doa.
b. Kegiatan Inti
- Mengingatkan kembali teks yang sudah dipelajari.
- Siswa menjawab soal yang diberikan guru.
c. penutup
- Guru mengumpulkan hasil kerja siswa.
- Guru menutup pertemuan dengan hamdalah dan salam.


## J. Media Pembelajaran

Buku, Worksheet.

## K. Sumber Belajar

Buku yang relevan, Kamus, dan Internet.

## L. Penilaian

| Indikator Pencapaian Kompetensi | Teknik Penilaian | Bentuk Instrumen | $\begin{array}{r} \mathrm{I} \\ \mathrm{nstr} \\ \text { ume } \\ \mathrm{n} \\ \text { Soal } \end{array}$ |
| :---: | :---: | :---: | :---: |
| 7. Mengidentifikasi fungsi sosial teks <br> 8. Mengidentifikasi tokoh, tempat, waktu <br> 9. Mengidentifikasi masalah <br> 10. Mengidentifikasi resolusi <br> 11. Mengidentifikasi coda <br> 12. Mengidentifikasi kosakata yang sesuai dengan konteks | Tes tertulis | Multiple <br> Choice | Read the following text to answer questions |

a. Pedoman penilaian

- Jumlah skor maksimal keseluruhan adalah 100.
- Setiap jawaban yang benar diberi skor 5. Jumlah skor keseluruhan $5 \times 20=100$.(Tes Tertulis)

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## Learning Material

## Narrative Text I

## Mouse deer and Crocodile

One day Mouse deer saw a lot of fruits on the other side of the river. He wanted to eat them but he could not cross the river. There were many crocodiles there, but there was no bridge across the river. The Mouse deer suddenly had an idea. He stood on the river side and called out.
"Hello. Is anybody there?"
Crocodile heard him, he swam fast to meet Mouse deer, and answered, "Hello, Mouse deer. How are you? Please come in." He pretended to be friendly. He had a plan. As soon as Mouse deer got near, he would snap him and eat him for breakfast.

But Mouse deer was standing on top of a big stone. In a proud voice he said, "Crocodile, I'm here to do the King's order. The King will give away free meat to all crocodiles. He has sent me to count the number of all the crocodiles here."

Crocodile was so happy that he forgot his plan to eat Mouse deer. "Really? How will you count us?"
"Please call all your family, relatives, friends, neighbours. Tell them to line up from here to the other side of the river," ordered Mouse deer.

Before long, all the crocodiles were in a long line across the river. Then, Mouse deer jumped onto the back of one crocodile to another, counting loudly "One, Two, Three, Four." When he got to the last crocodile he said "One hundred!" and quickly jumped up to the land.
"How many are we?" asked Crocodile.
"One hundred. Hahaha, I fooled you! Thanks for giving me a bridge to cross the river. Bye!"

## Narrative Text II

## A Wolf in Sheep Clothing

There was a big wolf. He was waiting for a chance to steal a sheep, but the shepherd and his dog continuously chased him away. After a week, the wolf began to get very hungry, and thought, "I must find a way to get close to the sheep." It was by luck that he found a sheep's
skin. He carefully pulled the skin over his body so that none of his grey fur showed under the white sheep skin. Then he could walk in easily and now he was in the middle of the herd.

The big wolf knew that the most delicious sheep were the lambs, or the young sheep. He then imitated the voice of a ewe or a mother sheep. He could easily cheat a lamb who thought that he was its mother. And, the lamb followed him to the woods. There, he eventually ate the innocent lamb. For many days, he could eat as many lambs as his stomach could take. The big wolf got bigger and bigger everyday. Now he looked like the biggest sheep on earth.

One day the shepherd was planning to hold a party. He would invite many relatives and friends. So, he decided to slaughter the biggest sheep from the herd. The shepherd approached the biggest sheep very slowly and carefully. Guess who it was? The wolf, of course, who was fully covered by the white sheep skin! But, the wolf was so fat that he could not run and fight for his safety. Very easily the shepherd slaughtered him, chopped him, and then cooked him for the big party.

## APPENDIX 3

## Instrument for Pre-Test before Validity

## Instruction: Choose the correct answer by crossing (X) a, b, c, or d!

Read the following text to answer questions number 1 to 10 .
The Story of the Smart Parrot
A man in Puerto Rico had a wonderful parrot. There was no other 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 to so angry that the shouted over and over, "Say Catano, or I'll kill you!" but the bird wouldn't 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. Indonesia
B. Brazil
C. Puerto Rico
D. New York
2. What is the word that the parrot cannot say?
A. Catano
B. Tacano
C. Canato
D. Nacato
3. How often did the owner teach the bird how to say the word?
A. Always
B. Everyday
C. Many times
D. Every second
4. Which statement is true according to the text?
A. The parrot could say Catano
B. At last the parrot could say Catano
C. Catano was the name at the parrot
D. The man never got angry at the parrot
5. What does the man do to the bird because the bird cannot say the name of a place.
A. The man ate the bird.
C. The man killed the bird.
B. The sold the bird.
D. The man taught the bird.
6. It is most likely that ....
A. The bird killed the three chickens.
C. The bird played with the chicken.
B. The three chickens killed the bird.
D. The bird killed one of the three chickens.
7. What is the story about?
A. A parrot and a cat
C. A parrot and the owner
B. A parrot and a chicken
D. A parrot, the owner, and chickens
8. From the text we learn that...
A. We have to follow others
C. We have to imitate others
B. We have to respect pet owner
D. We are not allowed to force others
9. "It was very, very smart". The underlined word refers to...
A. The chicken
B. The man
C. The Catano
D. The bird
10. "The parrot was very, very smart"

The word 'smart' means ....
A. Stupid
B. Clever
C. Stubborn
D. Beautiful

Read the following text to answer questions number 11 to 20.
Mouse Deer and Mr. Crocodile
One day, a mouse deer was walking by the river. He was very starving because he hadn't eaten since morning. It was midday. But he found nothing in the land but dying trees. "Huh... I hate this branches, I don't like it!"

Across the river, there was green grassland, with young leaves. 'Hmm.. it seems delicious' imagined the mouse deer, 'but how can I get there? I can't swim, the current is very rapid?' The mouse deer was figuring out the way how to reach there. Suddenly, he jumped to the air,'aha.: he then walked to the edge of the river. He didn't see the reflection because the water flowed very fast. He dipped one of his fore legs into the water. A few moment later, appeared Mr. Crocodile showing his sharp teeth. He then laughed, "На... ha... ha, you can't run away from me, You'll be my tasty lunch!" said the crocodile.
"Of course I can't. You are very strong, Mr. Croco," replied the mouse deer frightenedly. Then, the other crocodiles approached moving slowly.They approached the edge of the river. "But, before you all have a party, I wonder how many your members are there in the river. If I know your number exactly, I can distribute my meat evenly,"said the mouse deer.
"Oh...o, great, good idea! But we are a large group, I can't count it precisely," Mr. Croco moaned. "Leave it to me, and I can make it for you!" Now, can you ask the others to
line up, from one edge to the other edge of the river? The mouse deer requested. Then the crocodiles arranged themselves in line from one edge to the other edge of the river. The mouse deer jumped to the body of one crocodile to the others while he was counting, 'one, two, three; and so forth up to ten. Then at last he arrived at grassland, and he thanked to the dumb crocodiles.
11. Why did mouse deer want to go across the river?
A. Because he was very hungry
B. Because he wanted to cheat Mr. Crocodile
C. He wanted to eat some dying trees
D. He was afraid of the current of the river
12. How many crocodiles were there in the story above?
A. Three crocodiles
B. Ten crocodiles
C. Thirteen crocodiles
D. Not Mentioned
13. " .... But we are a large group, I can't count it precisely," The underlined word has closest meaning with ....
A. Accurately
B. Objectively
C. Definitely
D. Obviously
14. After reading the text, we may conclude that the mouse deer was ....
A. Very greedy animal
C. Dumb animal
B. Cunning animal
D. Frightened animal
15. What is the purpose of the text?
A. To persuade the readers that something should or should not be the case
B. To entertain the readers
C. To inform the readers about the events of the day which are considered newsworthy
D. To explain something
16. What do you think about the crocodile?
A. Fool animal
C. Cunning animal
B. Greedy animal
D. Frightened animal
17. What can we learn from the text?
A. We must not cheat to get what we want
C. We will find green grassland
B. We would find other animals to eat
D. We have to follow others
18. Where is the setting of the story above?
A. In the village
C. At the forest
B. In the river
D. At the hut
19. Which paragraph did show the complication of the story?
A. Paragraph 1
B. Paragraph 2
C. Paragraph 3
D. Paragraph 4
20. Which paragraph did show the resolution of the story?
A. Paragraph 1
B. Paragraph 2
C. Paragraph 3
D. Paragraph 4

Read the following text to answer questions number 21 to 30 .

## Two Frogs

Two frogs had lived in a village all their lives. They thought they would like to go and see the big city that was about ten miles away. They talked about it for a long time and at last they set off to the city.

It was a hot day, and they soon began to feel tired. They had only gone a little way when one said to the other, "we must be nearly there, can you see the city?" "No," said the other frog, "but if I climb on your back I might be able to see it." So he climbed up on the back of the other frog to see the city.

Now when the frog put up his head, his eyes could only see what was behind. And not what was in the front. So he saw the village they had just left. "Can you see the city?" asked the frog who was below. "Yes," answered the frog who had climbed up." I can see it. It looks just like our village." Then the frogs thought that it was not worthwhile going any further. They went back and told the frogs in the village that they had seen the city, and it was just like theirs.
21. What did they feel on their way to find a big city?
A. Наррру
B. Glad
C. Sad
D.Tired
22. Why did one of the frogs climb on the other's back?
A. 1It felt tired
C. It could not see the city
B. It was a hot day
D. It thought it was worthwhile
23. " ...at last they set off to see the city." The underlined word means ....
A. Left
B.Gave up
C. Decided
D. Stopped
24. What is the moral value of the text?
A. Never do something useless with your friends
B. Never trust within a single opinion without other evidences
C. We have to accept whatever information we receive
D. We can always ask someone's opinions for anything
25. What is the function of the text?
A. To entertain the readers
B. To persuade the readers that something should or should not be the case
C. To inform the readers about the events of the day which are considered newsworthy
D. To explain something
26. Where did two frogs live?
A. Near the river
C. In a hut
B. In a village
D. Near the city
27. What is the generic structure of "Then the frogs thought that it was not worthwhile going any further"?
A. Orientation
B. Complication
C. Resolution
D. Re-orientation
28. Who are the characters of the story?
A. The goat
B. Two lions
C. The wolf
D. Two frogs
29. What is the problem of the story?
A. The frog see the big city
C. The frog set off to the city
B. The frog climbed up
D. The frog could not see what was in the front
30. How far the distance from the village to the city?
A. Two miles
B. Ten miles
C. Three miles
D. Eight miles

## APPENDIX 4

## Instrument for Pre-Test after Validity

## Nama:

Kelas:

## Instruction: Choose the correct answer by crossing (X) a, b, c, or d!

Read the following text to answer questions number 1 to 6 .
The Story of the Smart Parrot
A man in Puerto Rico had a wonderful parrot. There was no other 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 to so angry that the shouted over and over, "Say Catano, or I'll kill you!" but the bird wouldn't 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!
15 . Where does the story take place?
A. Indonesia
B. Brazil
C. Puerto Rico
D. New York
16. How often did the owner teach the bird how to say the word?
A. Always
B. Everyday
C. Many times
D. Every second
17. What does the man do to the bird because the bird cannot say the name of a place?
A. The man ate the bird.
C. The man killed the bird.
B. The sold the bird.
D. The man taught the bird.
18. From the text we learn that...
A. We have to follow others
C. We have to imitate others
B. We have to respect pet owner
D. We are not allowed to force others
19. "It was very, very smart". The underlined word refers to...
A. The chicken
B. The man
C. The Catano
D. The bird
20. "The parrot was very, very smart". The word 'smart' means ...
A. Stupid
B. Clever
C. Stubborn
D. Beautiful

Read the following text to answer questions number 7 to 13 .
Mouse Deer and Mr. Crocodile
One day, a mouse deer was walking by the river. He was very starving because he hadn't eaten since morning. It was midday. But he found nothing in the land but dying trees. "Huh... I hate this branches, I don't like it!"

Across the river, there was green grassland, with young leaves. 'Hmm.. it seems delicious' imagined the mouse deer, 'but how can I get there? I can't swim, the current is very rapid?' The mouse deer was figuring out the way how to reach there. Suddenly, he jumped to the air,'aha.: he then walked to the edge of the river. He didn't see the reflection because the water flowed very fast. He dipped one of his fore legs into the water. A few moment later, appeared Mr. Crocodile showing his sharp teeth. He then laughed, "Ha... ha... ha, you can't run away from me, You'll be my tasty lunch!" said the crocodile.
"Of course I can't. You are very strong, Mr. Croco," replied the mouse deer frightenedly. Then, the other crocodiles approached moving slowly.They approached the edge of the river. "But, before you all have a party, I wonder how many your members are there in the river. If I know your number exactly, I can distribute my meat evenly,"said the mouse deer.
"Oh...o, great, good idea! But we are a large group, I can't count it precisely," Mr. Croco moaned. "Leave it to me, and I can make it for you!" Now, can you ask the others to line up, from one edge to the other edge of the river? The mouse deer requested. Then the crocodiles arranged themselves in line from one edge to the other edge of the river. The mouse deer jumped to the body of one crocodile to the others while he was counting, 'one, two, three; and so forth up to ten. Then at last he arrived at grassland, and he thanked to the dumb crocodiles.
21. Why did mouse deer want to go across the river?
A. Because he was very hungry
B. Because he wanted to cheat Mr. Crocodile
C. He wanted to eat some dying trees
D. He was afraid of the current of the river
22. " .... But we are a large group, I can't count it precisely," The underlined word has closest meaning with ....
A. Accurately
B. Objectively
C. Definitely
D. Obviously
23. After reading the text, we may conclude that the mouse deer was ....
A. Very greedy animal
C. Dumb animal
B. Cunning animal
D. Frightened animal
10. What is the purpose of the text?
D. To persuade the readers that something should or should not be the case
E. To entertain the readers
F. To inform the readers about the events of the day which are considered newsworthy
D. To explain something
11. What can we learn from the text?
A. We must not cheat to get what we want
C. We will find green grassland
B. We would find other animals to eat
D. We have to follow others
12. Where is the setting of the story above?
A. In the village
C. At the forest
B. In the river
D. At the hut
13. Which paragraph did show the resolution of the story?
A. Paragraph 1
B. Paragraph 2
C. Paragraph 3
D. Paragraph 4

Read the following text to answer questions number 14 to 20.

## Two Frogs

Two frogs had lived in a village all their lives. They thought they would like to go and see the big city that was about ten miles away. They talked about it for a long time and at last they set off to the city.

It was a hot day, and they soon began to feel tired. They had only gone a little way when one said to the other, "we must be nearly there, can you see the city?" "No," said the other frog, "but if I climb on your back I might be able to see it." So he climbed up on the back of the other frog to see the city.

Now when the frog put up his head, his eyes could only see what was behind. And not what was in the front. So he saw the village they had just left. "Can you see the city?" asked the frog who was below. "Yes," answered the frog who had climbed up." I can see it. It looks just like our village." Then the frogs thought that it was not worthwhile going any further. They went back and told the frogs in the village that they had seen the city, and it was just like theirs.
14. What is the problem of the story?
B. The frog see the big city
C. The frog set off to the city
B. The frog climbed up
D. The frog could not see what was in the front
15. Who are the characters of the story?
B. The goat
B. Two lions
C. The wolf
D. Two frogs
16. " ...at last they set off to see the city." The underlined word means ..
B. Left
B.Gave up
C. Decided
D. Stopped
17. What is the moral value of the text?
E. Never do something useless with your friends
F. Never trust within a single opinion without other evidences
G. We have to accept whatever information we receive
H. We can always ask someone's opinions for anything
18. What is the function of the text?
E. To entertain the readers
F. To persuade the readers that something should or should not be the case
G. To inform the readers about the events of the day which are considered newsworthy
H. To explain something
19. Where did two frogs live?
C. Near the river
C. In a hut
D. In a village
D. Near the city
20. What is the generic structure of "Then the frogs thought that it was not worthwhile going any further"?
B. Orientation
B. Complication
C. Resolution
D. Re-orientation

## APPENDIX 5

## Instrument for Post-Test before Validity

## Instruction: choose the correct answer by crossing (X) a, b, c, or d!

Read the following text to answer questions number 1 to 10 .
The Rabbit and The Bear
Once upon a time there lived as neighbors, a bear and a rabbit. The rabbit was a good shot. In contrary, the bear is always very clumsy and could not use the arrow to good advantage.

One day, the bear would call over the rabbit, and asked the rabbit to take his bow and arrows and came with the bear to the other side of the hill. The rabbit was feared to arouse the bear's anger so he could not refuse it. He consented and went with the bear and shot enough buffalo to satisfy the hungry family. Indeed he shot and killed so many that there was lots of meat left after the bear and his family had loaded themselves and packed all they could carry home.

The bear was gluttonous and did not want the rabbit to get any of the meat. The rabbit could not even taste the blood from butchering as the bear would throw earth on the blood and dry it up. The poor rabbit would have to go home hungry after his hard day's work.

The bear was the father of five children. The youngest child was very kind to the rabbit. He was very hearty eater. The mother bear always gave him an extra large piece of meat but the youngest child did not eat it. He would take it outside with him and pretended to play ball with the meat. He kicked toward the rabbit's house and when he got close to the door he would give the meat with such a great kick. The meat would fly into the rabbit's house. In this way, the poor rabbit would get his meal unknown to the papa bear.

1. What do you think about the bear?
A. He was greedy
C. He could use the arrow well
B. He was a good shot
D. He has very kind to the rabbit
2. Why papa bear doesn't give the rabbit meat?
A. He was poor
C. There's not enough meat
B. The rabbit doesn't want it
D. He was greedy
3. "He consented and went with the bear and shot enough buffalo to satisfy the hungry family." The underlined word is closest in meaning with...
A. Give
B. Fulfill
C. Send
D. Save
4. Who gave meat to the rabbit?
A. Papa bear
C. The bear's children
B. Mama bear
D. The youngest child of the bear
5. The poor rabbit didn't get any of the meat because .....
A. They are already given to the butcher
B. They are eaten by the youngest bear
C. The bear carried all the meat home
D. They are already dried up
6. Which statement is NOT TRUE according to the text ?
A. The papa bear was not very kind to the rabbit
B. The rabbit got nothing from his shooting
C. The mother bear always gave her youngest extra meat
D. The papa bear knew that his youngest child gave the rabbit some meat.
7. What can we learn from the story?
A. Don't be arrogant
C. Don't be lazy
B. We must be kind to our neighbours
D. Be a generous man
8. What do you think about the rabbit?
A. He was angry
C. He couldn't use the arrow well
B. He was a good shot
D. He has five children
9. Where did the story take place?
A. In the hill
C. In the field
B. In the village
D. In the forest

10 . What is the purpose of the text?
A. To explain something
B. To persuade the readers that something should or should not be the case
C. To inform the readers about the events of the day which are considered newsworthy
D. To entertain the readers

Read the following text to answer questions number 11 to 20 .

## The Rats and The Elephant

Once upon a time there lived a group of rats under a tree in peace. However, the elephant herd crossing the jungle unknowingly destroyed the homes of all the rats. Many of them were even crushed to death.

Then the king of rats decided to approach the elephant's chief and request him to guide his herd through another route. On hearing the sad story, the elephant's chief apologized and agreed to take another route. And so the lives of the rats were saved.

One day elephant-hunters came to the jungle and trapped the elephant herd in huge nets. Then the elephant's chief suddenly remembered the king of the rats. He summoned one of the elephant of his herd, which had not been trapped, to go seek help from the king of rats and told him about the trapped elephants.

The king of rats immediately took his entire group of rats and they cut open the nets which had trapped the elephant herd. The elephant herd was totally set free. They danced with joy and thank the rats.
11. What type of text is it?
A. Narrative text
B. Description text
C. Recount text
D. Anecdote text
12. What destroyed the homes of all rats?
A. A group of mice did
C.
Elephant-hunter
did
B. The hunter did
D. A group of elephant did
13. When did the story occur?
A. Deep in the writer's mind
C. In the black forest
B. In the jungle
D. In the home of mice group
14. What helped the
elephant's herd
free?
A. The elephant-hunter did
C. The trapped elephants
did
B. The hunters did
D. Entire group of rats did
15. What is generic structure of "once upon a time there lived a group of mice under a tree in peace"?
A. Identification
B. Orientation
C. Complication
D. Resolution
16. At the end of the story, how was the elephant's herd?
A. Angry
B. Sad
C. Happy
D. Dead
17. The word "summoned" means ....
A. Ordered to come
B. Asked to do
C. Offered to come
D. Got to make
18. Which paragraph did show the resolution of the story?
A. Paragraph 1
C. Paragraph 3
B. Paragraph 2
D. Paragraph 4
19. Where is the setting of the story above?
A. In the river
C. In the jungle
B. In the valley
D. In the village
20. What is the purpose of the text?
A. To persuade the readers that something should or should not be the case
B. To entertain the readers
C. To inform the readers about the events of the day which are considered newsworthy
D. To explain something

Read the following text to answer questions number 21 to 30 .
The Lion and The Mouse
Once when a lion was asleep, a little mouse began up and down upon him; this soon awoke the lion, who placed his huge paw upon the mouse, and open his big jaws to swallow him.
"Pardon, O king," cried the little mouse, "forgive me this time, I shall never forget it: who knows I may be able to do you a good turn some of these days?". The lion was so tickled at the idea of the mouse being able to help him. Then, he lifted up his paw and let him go.

One day the lion was caught in a trap. Some hunters who to carry him alive to the king, tied him to a tree while they went in search of a wagon to carry him in. Just then the little mouse happened to pass by and see the sad plight in which the lion was. The little mouse went up to him and soon gnawed away the ropes that bound the king of the beasts. Soon after the little mouse had finished growing away the ropes, he asked the lion to run away.
21. What is the purpose of the text?
G. To entertain the readers
H. To persuade the readers that something should or should not be the case
I. To inform the readers about the events of the day which are considered newsworthy
J. To explain something
22. What is the moral value of the text?
A. Don't look at someone because of this clothes
B. It is best for prepare for the days of necessity
C. Common people may prove great ones
D. United we stand, divided we fall
23. Paragraph three mainly tell us that......
A. The little mouse asked for forgiveness
B. The hunters carried the lion alive to the king
C. The lion was tied to a tree by the hunters
D. The little mouse could prove that he could help the lion
24. What did the little mouse do to prove his words?
A. He would never forget the lion
B. He tried hard to help the lion free
C. He ran up and down upon the lion
D. He asked for apology to the king of the beast
25. The word "huge" (p.1) means very.....
A. Old
B. Large
C. Tall
D.Tiny
26. Where the story took a place?
A. In the river
B. In the park
C.In the woods
D. In the zoo
27. Who is the story about?
A. The lion and the mouse
C. The king
B. The hunters
D. The two friends
28. What kind of the text is it?
A. Descriptive text
B. Recount text
C. Reprt text
D. Narrative text
29. What is the complication of the story?
A. The lion was caught in a trap.
C. The lion let the mouse go
B. The lion was asleep
D. The lion run away
30. "... who wanted to carry him alive to the king..." (p.3). The underlined word means...
A. See
B. Bring
C. Go
D. Run

## APPENDIX 6

## Instrument for Post-Test after Validity

## Nama:

Kelas:

## Instruction: choose the correct answer by crossing (X) a, b, c, or d!

Read the following text to answer questions number 1 to 8 .
The Rabbit and The Bear
Once upon a time there lived as neighbors, a bear and a rabbit. The rabbit was a good shot. In contrary, the bear is always very clumsy and could not use the arrow to good advantage.

One day, the bear would call over the rabbit, and asked the rabbit to take his bow and arrows and came with the bear to the other side of the hill. The rabbit was feared to arouse the bear's anger so he could not refuse it. He consented and went with the bear and shot enough buffalo to satisfy the hungry family. Indeed he shot and killed so many that there was lots of meat left after the bear and his family had loaded themselves and packed all they could carry home.

The bear was gluttonous and did not want the rabbit to get any of the meat. The rabbit could not even taste the blood from butchering as the bear would throw earth on the blood and dry it up. The poor rabbit would have to go home hungry after his hard day's work.

The bear was the father of five children. The youngest child was very kind to the rabbit. He was very hearty eater. The mother bear always gave him an extra large piece of meat but the youngest child did not eat it. He would take it outside with him and pretended to play ball with the meat. He kicked toward the rabbit's house and when he got close to the door he would give the meat with such a great kick. The meat would fly into the rabbit's house. In this way, the poor rabbit would get his meal unknown to the papa bear.

1. What do you think about the rabbit?
A. He was angry
C. He couldn't use the arrow well
B. He was a good shot
D. He has five children
2. Why papa bear doesn't give the rabbit meat?
A. He was poor
C. There's not enough meat
B. The rabbit doesn't want it
D. He was greedy
3. "He consented and went with the bear and shot enough buffalo to satisfy the hungry family." The underlined word is closest in meaning with...
A. Give
B. Fulfill
C. Send
D. Save
4. Who gave meat to the rabbit?
A. Papa bear
C. The bear's children
B. Mama bear
D. The youngest child of the bear
5. Where did the story take place?
A. In the hill
C. In the field
B. In the village
D. In the forest
6. What can we learn from the story?
A. Don't be arrogant
C. Don't be lazy
B. We must be kind to our neighbours
D. Be a generous man
7. What do you think about the bear?
A. He was greedy
C. He could use the arrow well
B. He was a good shot
D. He has very kind to the rabbit
8. What is the purpose of the text?
E. To explain something
F. To persuade the readers that something should or should not be the case
G. To inform the readers about the events of the day which are considered newsworthy
H. To entertain the readers

Read the following text to answer questions number 9 to 13 .
The Rats and The Elephant
Once upon a time there lived a group of rats under a tree in peace. However, the elephant herd crossing the jungle unknowingly destroyed the homes of all the rats. Many of them were even crushed to death.

Then the king of rats decided to approach the elephant's chief and request him to guide his herd through another route. On hearing the sad story, the elephant's chief apologized and agreed to take another route. And so the lives of the rats were saved.

One day elephant-hunters came to the jungle and trapped the elephant herd in huge nets. Then the elephant's chief suddenly remembered the king of the rats. He summoned one of the elephant of his herd, which had not been trapped, to go seek help from the king of rats and told him about the trapped elephants.

The king of rats immediately took his entire group of rats and they cut open the nets which had trapped the elephant herd. The elephant herd was totally set free. They danced with joy and thank the rats.
9. What destroyed the homes of all rats?
A. A group of mice did
C. Elephant-hunter did
B. The hunter did
D. A group of elephant did
10. When did the story occur?
A. Deep in the writer's mind
C. In the black forest
B. In the jungle
D. In the home of mice group
11. Which paragraph did show the resolution of the story?
A. Paragraph 1
C. Paragraph 3
B. Paragraph 2
D. Paragraph 4
12. The word "summoned" means ....
A. Ordered to come
B. Asked to do
C. Offered to come
D. Got to make
13. What is the purpose of the text?
E. To persuade the readers that something should or should not be the case
F. To entertain the readers
G. To inform the readers about the events of the day which are considered newsworthy
H. To explain something

Read the following text to answer questions number 14 to 20 .

## The Lion and The Mouse

Once when a lion was asleep, a little mouse began up and down upon him; this soon awoke the lion, who placed his huge paw upon the mouse, and open his big jaws to swallow him.
"Pardon, O king," cried the little mouse, "forgive me this time, I shall never forget it: who knows I may be able to do you a good turn some of these days?". The lion was so tickled at the idea of the mouse being able to help him. Then, he lifted up his paw and let him go.

One day the lion was caught in a trap. Some hunters who to carry him alive to the king, tied him to a tree while they went in search of a wagon to carry him in. Just then the little mouse happened to pass by and see the sad plight in which the lion was. The little mouse went up to him and soon gnawed away the ropes that bound the king of the beasts. Soon after the little mouse had finished growing away the ropes, he asked the lion to run away.
14. What is the purpose of the text?
K. To entertain the readers
L. To persuade the readers that something should or should not be the case
M. To inform the readers about the events of the day which are considered newsworthy
N. To explain something
15. What is the moral value of the text?
E. Don't look at someone because of this clothes
F. It is best for prepare for the days of necessity
G. Common people may prove great ones
H. United we stand, divided we fall
16. What did the little mouse do to prove his words?
E. He would never forget the lion
F. He tried hard to help the lion free
G. He ran up and down upon the lion
H. He asked for apology to the king of the beast
17. The word "huge" (p.1) means very.....
A. Old
B. Large
C. Tall
D.Tiny
18. Where the story took a place?
A. In the river
B. In the park
C.In the woods
D. In the zoo
19. What is the complication of the story?
A. The lion was caught in a trap
C. The lion let the mouse go
B. The lion was asleep
D. The lion run away
20. "... who wanted to carry him alive to the king..." (p.3). The underlined word means...
A. See
B. Bring
C. Go
D. Run

## Appendix 7

## KeyAnswer

|  | Post |
| :---: | :---: |
| A. Pre Test | 1. B |
| 1. C | 2. D |
| 2. C | 3. B |
| 3. D | 4. D |
| 4. D | 5. A |
| 5. D | 6. B |
| 6. B | 7. A |
| 7. A | 8. D |
| 8. A | 9. D |
| 9. B | 10. B |
| 10. B | 11. D |
| 11. A | 12. A |
| 12. B | 13. B |
| 13. D | 14. A |
| 14. D | 15. A |
| 15. D | 16. B |
| 16. A | 17. B |
| 17. B | 18. C |
| 18. A | 19. A |
| 19. B | 20. B |
| 20. C |  |

Appendix
14
Realibility of Post Test

| $\begin{aligned} & \ddot{0} \\ & \text { 苞 } \\ & 0 \\ & 0,0 \\ & 0 \end{aligned}$ | No. | Item |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
|  | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 |
|  | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 |
|  | 3 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 |
|  | 4 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 |
|  | 5 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
|  | 6 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
|  | 7 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 |
|  | 8 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
|  | 9 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
|  | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 |
|  | 11 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
|  | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 |
|  | 13 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
|  | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 |
|  | 15 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 |
|  | 16 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 17 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 |
|  | 18 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
|  | 19 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 |
|  | 20 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 |
|  | 21 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
|  | 22 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 |
|  | 23 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 |


| 24 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| $\mathrm{N}=25$ | 15 | 10 | 8 | 10 | 14 | 10 | 10 | 13 | 15 | 15 | 10 | 15 | 14 | 12 | 10 | 12 | 16 | 15 | 15 | 11 | 16 |
| p | 0,6 | 0,4 | 0,3 | 0,4 | 0,6 | 0,4 | 0,4 | 0,5 | 0,6 | 0,6 | 0,4 | 0,6 | 0,6 | 0,5 | 0,4 | 0,5 | 0,6 | 0,6 | 0,6 | 0,4 | 0,6 |
| q | 0,4 | 0,6 | 0,7 | 0,6 | 0,4 | 0,6 | 0,6 | 0,5 | 0,4 | 0,4 | 0,6 | 0,4 | 0,4 | 0,5 | 0,6 | 0,5 | 0,4 | 0,4 | 0,4 | 0,6 | 0,4 |
| pq | 0,24 | 0,24 | 0,218 | 0,24 | 0,246 | 0,24 | 0,24 | 0,25 | 0,24 | 0,24 | 0,24 | 0,24 | 0,246 | 0,25 | 0,24 | 0,25 | 0,23 | 0,24 | 0,24 | 0,246 | 0,23 |

## Calculation of Pre-Test

1. Mean score from score total $\left(\mathrm{M}_{\mathrm{t}}\right)$
$\mathrm{M}_{\mathrm{t}}=\frac{\sum X_{t}}{N}$
$\mathrm{M}_{\mathrm{t}}=\frac{452}{25}=18.08$
2. Standard Deviation $\left(\mathrm{SD}_{\mathrm{t}}\right)$
$\mathrm{SD}_{\mathrm{t}}=\sqrt{\frac{\sum X_{t^{2}}}{N}-\left(\frac{\sum X_{t}}{N}\right)^{2}}$
$\mathrm{SD}_{\mathrm{t}}=\sqrt{\frac{9796}{25}-\left(\frac{452}{25}\right)^{2}}$
$\mathrm{SD}_{\mathrm{t}}=\sqrt{391.84-18.08}{ }^{2}$
$\mathrm{SD}_{\mathrm{t}}=\sqrt{391.84-326.88}$
$\mathrm{SD}_{\mathrm{t}}=\sqrt{64.96}=8$
3. Mean Score $\left(\mathrm{M}_{\mathrm{p}}\right)$

## Item 1

$\mathrm{M}_{\mathrm{pl}}=\frac{\text { totalscoreofstudents'scorethattrueitemanswer }}{n 1}$
$\mathrm{M}_{\mathrm{pl}}=\frac{25+24+30+30+20+24+25+30+11+25+16+23+20+29+23}{15}$
$\mathrm{M}_{\mathrm{pl}}=\frac{355}{15}=23.67$

## Item 2

$\mathrm{M}_{\mathrm{pl}} \frac{\text { totalscoreof students scorethattrueitemanswer }}{n 2}$
$\mathrm{M}_{\mathrm{pl}}=\frac{25+30+9+30+20+13+8+13+24+30+11+25+6+23}{14}$
$\mathrm{M}_{\mathrm{pl}}=\frac{267}{14}=19.07$

## Item 3

$\mathrm{M}_{\mathrm{pl}}=\frac{\text { totalscoreofstudents'scorethattrueitemanswer }}{n 3}$
$\mathrm{M}_{\mathrm{pl}=} \frac{25+24+30+30+20+13+24+25+30+25+23+20+29+23+11}{15}$
$\mathrm{M}_{\mathrm{pl}}=\frac{352}{15}=23.47$

## Item 4

$\mathrm{M}_{\mathrm{pl}}=\frac{\text { totalscoreofstudents'scorethattrueitemanswer }}{n 4}$
$\mathrm{M}_{\mathrm{pl}}=\frac{25+24+30+30+20+24+25+30+11+25+16+23+20+29+23}{15}$
$\mathrm{M}_{\mathrm{pl}}=\frac{355}{15}=23.67$

## Item 5

$\mathrm{M}_{\mathrm{pl}}=\frac{\text { totalscoreofstudents'scorethattrueitemanswer }}{n 5}$
$\mathrm{M}_{\mathrm{pl}}=\frac{25+24+30+30+20+24+25+30+25+16+23+20+29+23}{14}$
$\mathrm{M}_{\mathrm{pl}}=\frac{344}{14}=24.57$

## Item 6

$\mathrm{M}_{\mathrm{pl}=} \frac{\text { totalscoreofstudents'scorethattrueitemanswer }}{n 6}$
$\mathrm{M}_{\mathrm{pl}}=\frac{25+24+30+30+13+12+13+8+25+30+25+16+23+29+23}{15}$
$\mathrm{M}_{\mathrm{pl}}=\frac{326}{15}=21.73$

## Item 7

$\mathrm{M}_{\mathrm{pl}=} \frac{\text { totalscoreofstudents'scorethattrueitemanswer }}{n 7}$
$\mathrm{M}_{\mathrm{pl}}=\frac{25+24+30+30+20+24+25+30+25+16+23+20+29+23}{14}$
$\mathrm{M}_{\mathrm{pl}}=\frac{344}{14}=24.57$

## Item 8

$\mathrm{M}_{\mathrm{pl}=} \frac{\text { totalscoreofstudents'scorethattrueitemanswer }}{n 8}$
$\mathrm{M}_{\mathrm{pl}}=\frac{25+30+9+30+20+13+8+12+13+24+30+11+25+6+29+23+11}{17}$
$\mathrm{M}_{\mathrm{pl}}=\frac{319}{17}=18.76$

## Item 9

$\mathrm{M}_{\mathrm{pl}=} \frac{\text { totalscoreofstudents'scorethattrueitemanswer }}{n 9}$
$\mathrm{M}_{\mathrm{pl}}=\frac{25+30+9+30+20+13+8+12+13+24+30+11+25+6+29+11}{16}$
$\mathrm{M}_{\mathrm{pl}}=\frac{296}{16}=18.5$

## Item 10

$\mathrm{M}_{\mathrm{pl}=} \frac{\text { totalscoreofstudents'scorethattrueitemanswer }}{n 10}$
$\mathrm{M}_{\mathrm{pl}}=\frac{24+30+9+30+13+12+13+8+8+25+30+11+23+20+29+23}{16}$
$\mathrm{M}_{\mathrm{pl}}=\frac{308}{16}=19.25$

## Item 11

$\mathrm{M}_{\mathrm{pl}=} \frac{\text { totalscoreofstudents'scorethattrueitemanswer }}{n 11}$
$\mathrm{M}_{\mathrm{pl}}=\frac{24+30+9+30+13+12+13+8+8+25+30+11+23+20+29+23+11}{17}$
$\mathrm{M}_{\mathrm{pl}}=\frac{319}{17}=18.76$

Item 12
$\mathrm{M}_{\mathrm{pl}=} \frac{\text { totalscoreofstudents'scorethattrueitemanswer }}{n 12}$
$\mathrm{M}_{\mathrm{pl}}=\frac{30+9+30+12+13+24+8+8+25+30+11+23+20+29+11}{15}$
$\mathrm{M}_{\mathrm{pl}}=\frac{283}{15}=18.87$

Item 13
$\mathrm{M}_{\mathrm{pl}=} \frac{\text { totalscoreofstudents'scorethattrueitemanswer }}{n 13}$
$\mathrm{M}_{\mathrm{pl}=} \frac{25+24+30+9+30+20+24+8+25+30+25+16+23+6+20+29+23+11}{18}$
$\mathrm{M}_{\mathrm{pl}}=\frac{378}{18}=21$

Item 14
$\mathrm{M}_{\mathrm{pl} 1} \frac{\text { totalscoreofstudents'scorethattrueitemanswer }}{n 14}$
$\mathrm{M}_{\mathrm{pl}}=\frac{25+24+30+30+20+24+25+30+25+16+23+20+29+23}{14}$
$\mathrm{M}_{\mathrm{pl}}=\frac{344}{14}=24.57$

## Item 15

$\mathrm{M}_{\mathrm{pl}=} \frac{\text { totalscoreofstudents'scorethattrueitemanswer }}{n 15}$
$\mathrm{M}_{\mathrm{pl}}=\frac{24+30+9+9+30+13+12+13+8+8+25+30+11+23+20+29+23+11}{18}$
$\mathrm{M}_{\mathrm{pl}}=\frac{328}{18}=18.22$

## Item 16

$\mathrm{M}_{\mathrm{pl} 1} \frac{\text { totalscoreofstudents'scorethattrueitemanswer }}{n 16}$
$\mathrm{M}_{\mathrm{pl}}=\frac{25+24+30+30+20+24+25+30+25+16+23+20+29+23}{14}$
$\mathrm{M}_{\mathrm{pl}}=\frac{344}{14}=24.57$

## Item 17

$\mathrm{M}_{\mathrm{pl}=} \frac{\text { totalscoreofstudents'scorethattrueitemanswer }}{n 17}$
$\mathrm{M}_{\mathrm{pl}}=\frac{25+24+30+30+20+24+25+30+25+16+23+20+29+23}{14}$
$\mathrm{M}_{\mathrm{pl}}=\frac{344}{14}=24.57$

## Item 18

$\mathrm{M}_{\mathrm{pl}=} \frac{\text { totalscoreofstudents'scorethattrueitemanswer }}{n 18}$
$\mathrm{M}_{\mathrm{pl}}=\frac{25+24+30+30+20+24+25+30+25+16+23+20+29+23}{14}$
$\mathrm{M}_{\mathrm{pl}}=\frac{344}{14}=24.57$

## Item 19

$\mathrm{M}_{\mathrm{pl} 1} \frac{\text { totalscoreofstudents'scorethattrueitemanswer }}{n 19}$
$\mathrm{M}_{\mathrm{pl}}=\frac{25+24+30+9+9+30+24+25+30+25+29+11}{12}$
$\mathrm{M}_{\mathrm{pl}}=\frac{271}{12}=22.58$

## Item 20

$\mathrm{M}_{\mathrm{pl}=} \frac{\text { totalscoreofstudents'scorethattrueitemanswer }}{n 20}$
$\mathrm{M}_{\mathrm{pl}=} \frac{25+24+30+30+20+13+8+24+25+30+11+25+23+20+29+23}{16}$
$\mathrm{M}_{\mathrm{pl}}=\frac{360}{16}=22.5$

## Item 21

$\mathrm{M}_{\mathrm{pl}=} \frac{\text { totalscoreofstudents'scorethattrueitemanswer }}{n 21}$
$\mathrm{M}_{\mathrm{pl}}=\frac{25+24+30+30+20+24+25+30+25+16+23+20+29+23}{14}$
$\mathrm{M}_{\mathrm{pl}}=\frac{344}{14}=24.57$

## Item 22

$\mathrm{M}_{\mathrm{pl}=} \frac{\text { totalscoreofstudents'scorethattrueitemanswer }}{n 22}$
$\mathrm{M}_{\mathrm{pl}}=\frac{25+24+30+30+13+12+13+8+25+30+25+16+23+29+23}{15}$
$\mathrm{M}_{\mathrm{pl}}=\frac{326}{15}=21.73$

## Item 23

$\mathrm{M}_{\mathrm{pl}=} \frac{\text { totalscoreofstudents'scorethattrueitemanswer }}{n 23}$
$\mathrm{M}_{\mathrm{pl}}=\frac{25+30+9+9+30+20+13+8+12+13+24+8+30+25+6+29}{16}$
$\mathrm{M}_{\mathrm{pl}}=\frac{291}{16}=18.18$

## Item 24

$\mathrm{M}_{\mathrm{pl}=} \frac{\text { totalscoreofstudents'scorethattrueitemanswer }}{n 24}$
$\mathrm{M}_{\mathrm{pl}}=\frac{24+30+9+30+8+12+13+24+8+8+25+30+23+20+29+11}{16}$
$\mathrm{M}_{\mathrm{pl}}=\frac{304}{16}=19$

## Item 25

$\mathrm{M}_{\mathrm{pl}=} \frac{\text { totalscoreofstudents'scorethattrueitemanswer }}{n 25}$
$\mathrm{M}_{\mathrm{pl}}=\frac{25+30+9+30+20+13+8+12+13+24+8+30+25+6+29+11}{16}$
$\mathrm{M}_{\mathrm{pl}}=\frac{293}{16}=18.31$

## Item 26

$\mathrm{M}_{\mathrm{pl}=} \frac{\text { totalscoreofstudents'scorethattrueitemanswer }}{n 25}$
$\mathrm{M}_{\mathrm{pl}}=\frac{25+24+30+9+30+13+12+13+8+25+30+11+25+16+23+29+23}{17}$
$\mathrm{M}_{\mathrm{pl}}=\frac{346}{17}=20.35$

## Item 27

$\mathrm{M}_{\mathrm{pl}}=\frac{\text { totalscoreofstudents'scorethattrueitemanswer }}{n 25}$
$\mathrm{M}_{\mathrm{pl}}=\frac{25+24+30+30+20+24+25+30+25+16+23+20+29+23}{14}$
$\mathrm{M}_{\mathrm{pl}}=\frac{344}{14}=24.57$

## Item 28

$\mathrm{M}_{\mathrm{pl}=} \frac{\text { totalscoreofstudents'scorethattrueitemanswer }}{n 25}$
$\mathrm{M}_{\mathrm{pl}}=\frac{25+24+30+30+20+24+25+30+25+16+23+20+29+23}{14}$
$\mathrm{M}_{\mathrm{pl}}=\frac{344}{14}=24.57$

## Item 29

$\mathrm{M}_{\mathrm{pl}=} \frac{\text { totalscoreofstudents'scorethattrueitemanswer }}{n 25}$
$\mathrm{M}_{\mathrm{pl}=} \frac{25+24+30+30+20+24+25+30+25+16+23+20+29+23}{14}$
$\mathrm{M}_{\mathrm{pl}}=\frac{344}{14}=24.57$

## Item 30

$\mathrm{M}_{\mathrm{pl} 1} \frac{\text { totalscoreofstudents'scorethattrueitemanswer }}{n 25}$
$\mathrm{M}_{\mathrm{pl}}=\frac{25+24+30+9+9+30+8+24+25+30+25+29+11}{13}$
$\mathrm{M}_{\mathrm{pl}}=\frac{279}{13}=21.46$

## Appendix 9

## Table Validity of Pre-test

| No | $\mathrm{M}_{\mathrm{p}}$ | $\mathrm{M}_{\mathrm{t}}$ | $\mathrm{SD}_{\mathrm{t}}$ | P | Q | $r_{p b i}=\frac{M_{p-M_{t}}}{S D_{t}} \sqrt{\frac{\mathrm{p}}{q}}$ | $\begin{aligned} & \mathrm{r}_{\mathrm{t}} \text { on } 5 \% \\ & \text { significant } \end{aligned}$ | Interpretation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | 23.67 | 18.08 | 8 | 0.6 | 0.4 | 0.84 | 0.396 | valid |
| 2. | 19.07 | 18.08 | 8 | 0.6 | 0.4 | 0.14 | 0.396 | invalid |
| 3. | 23.47 | 18.08 | 8 | 0.6 | 0.4 | 0.81 | 0.396 | valid |
| 4. | 23.67 | 18.08 | 8 | 0.6 | 0.4 | 0.84 | 0.396 | valid |
| 5. | 24.57 | 18.08 | 8 | 0.6 | 0.4 | 0.98 | 0.396 | valid |
| 6. | 21.73 | 18.08 | 8 | 0.6 | 0.4 | 0.54 | 0.396 | valid |
| 7. | 24.57 | 18.08 | 8 | 0.6 | 0.4 | 0.98 | 0.396 | valid |
| 8. | 18.76 | 18.08 | 8 | 0.7 | 0.3 | 0.12 | 0.396 | invalid |
| 9. | 18.5 | 18.08 | 8 | 0.6 | 0.4 | 0.06 | 0.396 | invalid |
| 10. | 19.25 | 18.08 | 8 | 0.6 | 0.4 | 0.06 | 0.396 | invalid |
| 11. | 18.76 | 18.08 | 8 | 0.7 | 0.3 | 0.12 | 0.396 | invalid |
| 12. | 18.87 | 18.08 | 8 | 0.6 | 0.4 | 0.10 | 0.396 | invalid |
| 13. | 21 | 18.08 | 8 | 0.7 | 0.3 | 0.54 | 0.396 | valid |
| 14. | 24.57 | 18.08 | 8 | 0.6 | 0.4 | 0.98 | 0.396 | valid |
| 15. | 18.22 | 18.08 | 8 | 0.7 | 0.3 | 0.015 | 0.396 | invalid |
| 16. | 24.57 | 18.08 | 8 | 0.6 | 0.4 | 0.98 | 0.396 | valid |
| 17. | 24.57 | 18.08 | 8 | 0.6 | 0.4 | 0.98 | 0.396 | valid |
| 18. | 24.57 | 18.08 | 8 | 0.6 | 0.4 | 0.98 | 0.396 | valid |
| 19. | 22.58 | 18.08 | 8 | 0.5 | 0.5 | 0.56 | 0.396 | valid |
| 20. | 22.5 | 18.08 | 8 | 0.6 | 0.4 | 0.67 | 0.396 | valid |
| 21. | 24.57 | 18.08 | 8 | 0.6 | 0.4 | 0.98 | 0.396 | valid |
| 22. | 21.73 | 18.08 | 8 | 0.6 | 0.4 | 0.54 | 0.396 | valid |
| 23. | 18.18 | 18.08 | 8 | 0.6 | 0.4 | 0.012 | 0.396 | invalid |
| 24. | 19 | 18.08 | 8 | 0.6 | 0.4 | 0.13 | 0.396 | invalid |
| 25. | 18.31 | 18.08 | 8 | 0.6 | 0.4 | 0.024 | 0.396 | invalid |
| 26. | 20.35 | 18.08 | 8 | 0.7 | 0.3 | 0.42 | 0.396 | valid |
| 27. | 24.57 | 18.08 | 8 | 0.6 | 0.4 | 0.98 | 0.396 | valid |
| 28. | 24.57 | 18.08 | 8 | 0.6 | 0.4 | 0.98 | 0.396 | valid |
| 29. | 24.57 | 18.08 | 8 | 0.6 | 0.4 | 0.98 | 0.396 | valid |
| 30. | 21.46 | 18.08 | 8 | 0.5 | 0.5 | 0.42 | 0.396 | valid |

Calculation of the formulation $\mathbf{r}_{\mathrm{pbi}}$
$=\frac{M_{p-M_{t}}}{S D_{t}} \sqrt{\frac{p}{q}}$

## Item 1

$\mathrm{r}_{\mathrm{pbi}}=\frac{M_{p-M_{t}}}{S D_{t}} \sqrt{\frac{p}{q}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{23.67-18.08}{8} \sqrt{\frac{0.6}{0.4}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{5.59}{8} \sqrt{1.5}$
$\mathrm{r}_{\mathrm{pbi}}=0.69 \times 1.22=0.84$

## Item 2

$\mathrm{r}_{\mathrm{pbi}}=\frac{M_{p-M_{t}}}{S D_{t}} \sqrt{\frac{p}{q}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{19.07-18.08}{8} \sqrt{\frac{0.6}{0.4}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{0.99}{8} \sqrt{1.5}$
$\mathrm{r}_{\mathrm{pbi}}=0.12 \times 1.22=0.14$

## Item 3

$\mathrm{r}_{\mathrm{pbi}}=\frac{M_{p-M_{t}}}{S D_{t}} \sqrt{\frac{p}{q}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{23.47-18.08}{8} \sqrt{\frac{0.6}{0.4}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{5.39}{8} \sqrt{1.5}$
$\mathrm{r}_{\mathrm{pbi}}=0.67 \times 1.22=0.81$

## Item 4

$\mathrm{r}_{\mathrm{pbi}}=\frac{M_{p-M_{t}}}{S D_{t}} \sqrt{\frac{p}{q}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{23.67-18.08}{8} \sqrt{\frac{0.6}{0.4}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{5.59}{8} \sqrt{1.5}$
$\mathrm{r}_{\mathrm{pbi}}=0.69 \times 1.22=0.84$

## Item 5

$\mathrm{r}_{\mathrm{pbi}}=\frac{M_{p-M_{t}}}{S D_{t}} \sqrt{\frac{p}{q}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{24.57-18.08}{8} \sqrt{\frac{0.6}{0.4}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{6.49}{8} \sqrt{1.5}$
$\mathrm{r}_{\mathrm{pbi}}=0.81 \times 1.22=0.98$

## Item 6

$\mathrm{r}_{\mathrm{pbi}}=\frac{M_{p-M_{t}}}{S D_{t}} \sqrt{\frac{p}{q}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{21.73-18.08}{8} \sqrt{\frac{0.6}{0.4}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{3.65}{8} \sqrt{1.5}$
$\mathrm{r}_{\mathrm{pbi}}=0.45 \times 1.22=0.54$

## Item 7

$\mathrm{r}_{\mathrm{pbi}}=\frac{M_{p-M_{t}}}{S D_{t}} \sqrt{\frac{p}{q}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{24.57-18.08}{8} \sqrt{\frac{0.6}{0.4}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{6.49}{8} \sqrt{1.5}$
$\mathrm{r}_{\mathrm{pbi}}=0.81 \times 1.22=0.98$

## Item 8

$\mathrm{r}_{\mathrm{pbi}}=\frac{M_{p-M_{t}}}{S D_{t}} \sqrt{\frac{p}{q}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{18.76-18.08}{8} \sqrt{\frac{0.7}{0.3}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{0.68}{8} \sqrt{2.3}$
$\mathrm{r}_{\mathrm{pbi}}=0.08 \times 1.51=0.12$

## Item 9

$\mathrm{r}_{\mathrm{pbi}}=\frac{M_{p-M_{t}}}{S D_{t}} \sqrt{\frac{p}{q}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{18.5-18.08}{8} \sqrt{\frac{0.6}{0.4}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{0.42}{8} \sqrt{1.5}$
$\mathrm{r}_{\mathrm{pbi}}=0.05 \times 1.22=0.06$

## Item 10

$\mathrm{r}_{\mathrm{pbi}}=\frac{M_{p-M_{t}}}{S D_{t}} \sqrt{\frac{p}{q}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{19.25-18.08}{8} \sqrt{\frac{0.6}{0.4}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{0.41}{8} \sqrt{1.5}$
$\mathrm{r}_{\mathrm{pbi}}=0.05 \times 1.22=0.06$

## Item 11

$\mathrm{r}_{\mathrm{pbi}}=\frac{M_{p-M_{t}}}{S D_{t}} \sqrt{\frac{p}{q}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{18.76-18.08}{8} \sqrt{\frac{0.7}{0.3}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{0.68}{8} \sqrt{2.3}$
$\mathrm{r}_{\mathrm{pbi}}=0.08 \times 1.51=0.12$

## Item 12

$\mathrm{r}_{\mathrm{pbi}}=\frac{M_{p-M_{t}}}{S D_{t}} \sqrt{\frac{p}{q}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{18.87-18.08}{8} \sqrt{\frac{0.6}{0.4}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{0.79}{8} \sqrt{1.5}$
$\mathrm{r}_{\mathrm{pbi}}=0.09 \times 1.22=0.10$

## Item 13

$\mathrm{r}_{\mathrm{pbi}}=\frac{M_{p-M_{t}}}{S D_{t}} \sqrt{\frac{p}{q}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{21-18.08}{8} \sqrt{\frac{0.7}{0.3}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{2.92}{8} \sqrt{2.3}$
$\mathrm{r}_{\mathrm{pbi}}=0.36 \times 1.51=0.54$

## Item 14

$\mathrm{r}_{\mathrm{pbi}}=\frac{M_{p-M_{t}}}{S D_{t}} \sqrt{\frac{p}{q}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{24.57-18.08}{8} \sqrt{\frac{0.6}{0.4}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{6.49}{8} \sqrt{1.5}$
$\mathrm{r}_{\mathrm{pbi}}=0.81 \times 1.22=0.98$

## Item 15

$\mathrm{r}_{\mathrm{pbi}}=\frac{M_{p-M_{t}}}{S D_{t}} \sqrt{\frac{p}{q}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{18.22-18.08}{8} \sqrt{\frac{0.7}{0.3}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{0.14}{8} \sqrt{2.3}$
$\mathrm{r}_{\mathrm{pbi}}=0.01 \times 1.51=0.015$

## Item 16

$\mathrm{r}_{\mathrm{pbi}}=\frac{M_{p-M_{t}}}{S D_{t}} \sqrt{\frac{p}{q}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{24.57-18.08}{8} \sqrt{\frac{0.6}{0.4}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{6.49}{8} \sqrt{1.5}$
$\mathrm{r}_{\mathrm{pbi}}=0.81 \times 1.22=0.98$

## Item 17

$\mathrm{r}_{\mathrm{pbi}}=\frac{M_{p-M_{t}}}{S D_{t}} \sqrt{\frac{p}{q}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{24.57-18.08}{8} \sqrt{\frac{0.6}{0.4}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{6.49}{8} \sqrt{1.5}$
$\mathrm{r}_{\mathrm{pbi}}=0.81 \times 1.22=0.98$

## Item 18

$\mathrm{r}_{\mathrm{pbi}}=\frac{M_{p-M_{t}}}{S D_{t}} \sqrt{\frac{p}{q}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{24.57-18.08}{8} \sqrt{\frac{0.6}{0.4}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{6.49}{8} \sqrt{1.5}$
$\mathrm{r}_{\mathrm{pbi}}=0.81 \times 1.22=0.98$

## Item 19

$\mathrm{r}_{\mathrm{pbi}}=\frac{M_{p-M_{t}}}{S D_{t}} \sqrt{\frac{p}{q}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{22.58-18.08}{8} \sqrt{\frac{0.5}{0.5}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{4.5}{8} \sqrt{1}$
$\mathrm{r}_{\mathrm{pbi}}=0.56 \times 1=0.56$

## Item 20

$\mathrm{r}_{\mathrm{pbi}}=\frac{M_{p-M_{t}}}{S D_{t}} \sqrt{\frac{p}{q}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{22.5-18.08}{8} \sqrt{\frac{0.6}{0.4}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{4.42}{8} \sqrt{1.5}$
$\mathrm{r}_{\mathrm{pbi}}=0.55 \times 1.22=0.67$

## Item 21

$\mathrm{r}_{\mathrm{pbi}}=\frac{M_{p-M_{t}}}{S D_{t}} \sqrt{\frac{p}{q}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{24.57-18.08}{8} \sqrt{\frac{0.6}{0.4}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{6.49}{8} \sqrt{1.5}$
$\mathrm{r}_{\mathrm{pbi}}=0.81 \times 1.22=0.98$

## Item 22

$\mathrm{r}_{\mathrm{pbi}}=\frac{M_{p-M_{t}}}{S D_{t}} \sqrt{\frac{p}{q}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{21.73-18.08}{8} \sqrt{\frac{0.6}{0.4}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{3.65}{8} \sqrt{1.5}$
$\mathrm{r}_{\mathrm{pbi}}=0.45 \times 1.22=0.54$

## Item 23

$\mathrm{r}_{\mathrm{pbi}}=\frac{M_{p-M_{t}}}{S D_{t}} \sqrt{\frac{p}{q}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{18.18-18.08}{8} \sqrt{\frac{0.6}{0.4}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{0.1}{8} \sqrt{1.5}$
$\mathrm{r}_{\mathrm{pbi}}=0.01 \times 1.22=0.012$

## Item 24

$\mathrm{r}_{\mathrm{pbi}}=\frac{M_{p-M_{t}}}{S D_{t}} \sqrt{\frac{p}{q}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{19-18.08}{8} \sqrt{\frac{0.6}{0.4}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{0.92}{8} \sqrt{1.5}$
$\mathrm{r}_{\mathrm{pbi}}=0.11 \times 1.22=0.13$

## Item 25

$\mathrm{r}_{\mathrm{pbi}}=\frac{M_{p-M_{t}}}{S D_{t}} \sqrt{\frac{p}{q}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{18.31-18.08}{8} \sqrt{\frac{0.6}{0.4}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{0.23}{8} \sqrt{1.5}$
$\mathrm{r}_{\mathrm{pbi}}=0.02 \times 1.22=0.024$

## Item 26

$\mathrm{r}_{\mathrm{pbi}}=\frac{M_{p-M_{t}}}{S D_{t}} \sqrt{\frac{p}{q}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{20.35-18.08}{8} \sqrt{\frac{0.7}{0.3}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{2.27}{8} \sqrt{2.3}$
$\mathrm{r}_{\mathrm{pbi}}=0.28 \times 1.51=0.42$

## Item 27

$\mathrm{r}_{\mathrm{pbi}}=\frac{M_{p-M_{t}}}{S D_{t}} \sqrt{\frac{p}{q}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{24.57-18.08}{8} \sqrt{\frac{0.6}{0.4}}$
$\mathrm{r}_{\mathrm{pbi}}==\frac{6.49}{8} \sqrt{1.5}$
$\mathrm{r}_{\mathrm{pbi}}=0.81 \times 1.22=0.98$

## Item 28

$\mathrm{r}_{\mathrm{pbi}}=\frac{M_{p-M_{t}}}{S D_{t}} \sqrt{\frac{p}{q}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{24.57-18.08}{8} \sqrt{\frac{0.6}{0.4}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{6.49}{8} \sqrt{1.5}$
$\mathrm{r}_{\mathrm{pbi}}=0.81 \times 1.22=0.98$

## Item 29

$\mathrm{r}_{\mathrm{pbi}}=\frac{M_{p-M_{t}}}{S D_{t}} \sqrt{\frac{p}{q}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{24.57-18.08}{8} \sqrt{\frac{0.6}{0.4}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{6.49}{8} \sqrt{1.5}$
$\mathrm{r}_{\mathrm{pbi}}=0.81 \times 1.22=0.98$

## Item 30

$\mathrm{r}_{\mathrm{pbi}}=\frac{M_{p-M_{t}}}{S D_{t}} \sqrt{\frac{p}{q}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{21.46-18.08}{8} \sqrt{\frac{0.5}{0.5}}$
$\mathrm{r}_{\mathrm{pbi}}=\frac{3.38}{8} \sqrt{1}$
$\mathrm{r}_{\mathrm{pbi}}=0.42 \times 1=0.42$

## Appendix 11

## Reliability of Pre Test

To get reliability of the test, the researcher uses formula KR-20:

$$
\begin{aligned}
& \mathrm{R}_{11}=\left(\frac{n}{n-1}\right)\left(\frac{s_{t^{2}}-\sum p q}{s_{t^{2}}}\right) \\
& \mathrm{N}=25 \\
& \sum \mathrm{Xt}=452 \\
& \sum \mathrm{Xt}^{2}=9796 \\
& \sum \mathrm{pq}=7.088 \\
& \mathrm{~S}_{\mathrm{t}}^{2}=\sum \mathrm{Xt}^{2}-\left(\frac{\sum \mathrm{xt}}{N}\right)^{2} \\
&=9796-\left(\frac{452}{25}\right)^{2}=9796-18.08^{2}=9796-326.8864=9469.1136 \\
& \mathrm{~S}_{\mathrm{t}}^{2}=\frac{\sum \mathrm{xt} 2}{N}=\frac{9469.1136}{25} \\
& \mathrm{~S}_{\mathrm{t}}^{2}=378.76 \\
& \mathrm{R}_{11}=\left(\frac{n}{n-1}\right)\left(\frac{s_{t^{2}}-\sum p q}{s_{t^{2}}}\right) \\
& \mathrm{R}_{11}=\left(\frac{25}{25-1}\right)\left(\frac{378.76-7.088}{378.76}\right)=\left(\frac{25}{24}\right)\left(\frac{371.672}{378.76}\right) \\
&=(1.04)(0.98) \\
&=1.01\left(\mathrm{r}_{11}>0.70=\text { reliable }\right)
\end{aligned}
$$

## Appendix 13

Table Validity of Post-test

| No | $\mathrm{M}_{\mathrm{p}}$ | $\mathrm{M}_{\mathrm{t}}$ | $\mathrm{SD}_{\mathrm{t}}$ | P | Q | $\mathrm{r}_{\mathrm{pbi}}=\frac{\mathrm{M}_{\mathrm{p}-\mathrm{M}_{\mathrm{t}}}}{\mathrm{SD}_{\mathrm{t}}} \sqrt{\frac{\mathrm{p}}{\mathrm{q}}}$ | $r_{t}$ on 5\% significant | Interpretation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | 19.93 | 14.96 | 7 | 0.6 | 0.4 | 0.86 | 0.396 | valid |
| 2. | 22.3 | 14.96 | 7 | 0.4 | 0.6 | 0.84 | 0.396 | valid |
| 3. | 24 | 14.96 | 7 | 0.3 | 0.7 | 0.82 | 0.396 | valid |
| 4. | 22.3 | 14.96 | 7 | 0.4 | 0.6 | 0.84 | 0.396 | valid |
| 5. | 20.78 | 14.96 | 7 | 0.6 | 0.4 | 1.01 | 0.396 | valid |
| 6. | 16.9 | 14.96 | 7 | 0.4 | 0.6 | 0.21 | 0.396 | invalid |
| 7. | 16.7 | 14.96 | 7 | 0.4 | 0.6 | 0.19 | 0.396 | invalid |
| 8. | 18.69 | 14.96 | 7 | 0.5 | 0.5 | 0.53 | 0.396 | valid |
| 9. | 18.47 | 14.96 | 7 | 0.6 | 0.4 | 0.61 | 0.396 | valid |
| 10. | 19.93 | 14.96 | 7 | 0.6 | 0.4 | 0.86 | 0.396 | valid |
| 11. | 22.4 | 14.96 | 7 | 0.4 | 0.6 | 0.85 | 0.396 | valid |
| 12. | 19.87 | 14.96 | 7 | 0.6 | 0.4 | 0.85 | 0.396 | valid |
| 13. | 15.21 | 14.96 | 7 | 0.6 | 0.4 | 0.036 | 0.396 | invalid |
| 14. | 19.91 | 14.96 | 7 | 0.5 | 0.5 | 0.70 | 0.396 | valid |
| 15. | 18.8 | 14.96 | 7 | 0.4 | 0.6 | 0.43 | 0.396 | valid |
| 16. | 15.08 | 14.96 | 7 | 0.5 | 0.5 | 0.017 | 0.396 | invalid |
| 17. | 19.18 | 14.96 | 7 | 0.6 | 0.4 | 0.73 | 0.396 | valid |
| 18. | 15.47 | 14.96 | 7 | 0.6 | 0.4 | 0.08 | 0.396 | invalid |
| 19. | 15.47 | 14.96 | 7 | 0.6 | 0.4 | 0.08 | 0.396 | invalid |
| 20. | 21.90 | 14.96 | 7 | 0.4 | 0.6 | 0.801 | 0.396 | valid |
| 21. | 19.25 | 14.96 | 7 | 0.6 | 0.4 | 0.74 | 0.396 | valid |
| 22. | 15.75 | 14.96 | 7 | 0.3 | 0.7 | 0.07 | 0.396 | invalid |
| 23. | 18.47 | 14.96 | 7 | 0.7 | 0.3 | 0.75 | 0.396 | valid |
| 24. | 22.3 | 14.96 | 7 | 0.4 | 0.6 | 0.84 | 0.396 | valid |
| 25. | 24 | 14.96 | 7 | 0.3 | 0.7 | 0.82 | 0.396 | valid |
| 26. | 19.83 | 14.96 | 7 | 0.5 | 0.5 | 0.69 | 0.396 | valid |
| 27. | 20.81 | 14.96 | 7 | 0.4 | 0.6 | 0.67 | 0.396 | valid |
| 28. | 19.18 | 14.96 | 7 | 0.6 | 0.4 | 0.73 | 0.396 | valid |
| 29. | 22.3 | 14.96 | 7 | 0.4 | 0.6 | 0.84 | 0.396 | valid |
| 30. | 15.5 | 14.96 | 7 | 0.6 | 0.4 | 0.08 | 0.396 | invalid |

## Appendix 15

## Reliability of Post Test

To get reliability of the test, the researcher uses formula KR-20:

$$
\begin{aligned}
& \mathrm{R}_{11}=\left(\frac{n}{n-1}\right)\left(\frac{s_{t^{2}}-\sum p q}{s_{t^{2}}}\right) \\
& \mathrm{N}=25 \\
& \sum \mathrm{Xt}=374 \\
& \sum \mathrm{Xt}^{2}=7146 \\
& \sum \mathrm{pq}=7.136 \\
& \mathrm{~S}_{\mathrm{t}}^{2}=\sum \mathrm{Xt}^{2}-\left(\frac{\sum \mathrm{xt}}{N}\right)^{2} \\
&=7146-\left(\frac{374}{25}\right)^{2}=7146-14.96^{2}=7146-223.8016=6922.1984 \\
& \mathrm{~S}_{\mathrm{t}}^{2}=\frac{\sum \mathrm{xt} 2}{N}=\frac{6922.1984}{25} \\
& \mathrm{~S}_{\mathrm{t}}^{2}=276.88 \\
& \mathrm{R}_{11}=\left(\frac{n}{n-1}\right)\left(\frac{s_{t^{2}}-\sum p q}{s_{t^{2}}}\right) \\
& \mathrm{R}_{11}=\left(\frac{25}{25-1}\right)\left(\frac{276.88-7.136}{276.88}\right)=\left(\frac{25}{24}\right)\left(\frac{269.744}{276.88}\right) \\
&=(1.04)(0.97) \\
&=1.008\left(\mathrm{r}_{11}>0.70=\text { reliable }\right)
\end{aligned}
$$

## Appendix 16

## RESULT OF NORMALITY TEST IN PRE TEST

## RESULT OF THE NORMALITY TEST OF VIII 5 IN PRE-TEST

1. The score of VIII 5 class in pre test from low score to high score:

2. High $=55$

Low $=25$
Range = High - Low

$$
=55-25
$$

$$
=30
$$

3. Total of Classes $=1+3,3 \log (\mathrm{n})$

$$
\begin{aligned}
& =1+3,3 \log (28) \\
& =1+3,3(1.44) \\
& =1+4.75 \\
& =5.75 \\
& =6
\end{aligned}
$$

4. Length of Classes $=\frac{\text { range }}{\text { totalofclass }} \quad=\frac{30}{6}=5$
5. Mean

| Interval Class | F | X | x | fx | $\mathrm{x}^{\mathbf{2}}$ | $\mathrm{fx}^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $25-29$ | 3 | 27 | +3 | 9 | 9 | 27 |
| $30-34$ | 2 | 32 | +2 | 4 | 4 | 8 |
| $35-39$ | 5 | 37 | +1 | 5 | 1 | 5 |
| $40-44$ | 6 | $\mathbf{4 2}$ | 0 | 0 | 0 | 0 |
| $45-49$ | 3 | 47 | -1 | -3 | 1 | 3 |
| $50-54$ | 5 | 52 | -2 | -10 | 4 | 20 |
| $55-59$ | 4 | 57 | -3 | -12 | 9 | 36 |
| $i=5$ | 28 | - | - | -7 | - | 99 |

$M x=M^{1}+i \frac{\Sigma f x^{1}}{N}$
$=42+5\left(\frac{-7}{28}\right)$
$=42+5(-0.25)$
$=42+(-1.25)$
$=40.75$

$$
\mathrm{SD}_{\mathrm{t}}=i \sqrt{\frac{\sum f x^{\prime}{ }^{2}}{n}-\left(\frac{\sum f x^{\prime}}{n}\right)^{2}}
$$

$$
\begin{aligned}
& =5 \sqrt{\frac{99}{28}-\left(\frac{-7}{28}\right)^{2}} \\
& =5 \sqrt{3.53-(-0.25)^{2}} \\
& =5 \sqrt{3.53-0.062} \\
& =5 \sqrt{3.468} \\
& =5 \times 1.862=9.31
\end{aligned}
$$

Table of Normality Data Test with Chi Kuadrad Formula

| Interval <br> of Score | Real <br> Upper <br> Limit | Z - Score | Limit of <br> Large of the <br> Area | Large of <br> area | $\mathrm{f}_{\mathrm{h}}$ | $\mathrm{f}_{0}$ | $\left(\mathrm{f}_{0}-\mathrm{f}_{\mathrm{h}}\right)$ <br> $\mathrm{f}_{\mathrm{h}}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $55-59$ | 59.5 | 2.01 | 0.4778 | 0.04 | 1.12 | 4 | 2.57 |
| $50-54$ | 54.5 | 1.47 | 0.4292 | 0.10 | 2.8 | 5 | 0.78 |
| $45-49$ | 49.5 | 0.93 | 0.3238 | 0.16 | 4.48 | 3 | -0.33 |
| $40-44$ | 44.5 | 0.40 | 0.1554 | 0.10 | 2.8 | 6 | 1.14 |
| $35-39$ | 39.5 | 0.13 | 0.0517 | -0.19 | -5.32 | 5 | -1.93 |
| $30-34$ | 34.5 | -0.67 | 0.2486 | -0.13 | -3.64 | 2 | -1.54 |
| $25-29$ | 29.5 | -1.20 | 0.3849 | -0.07 | -1.96 | 3 | -2.5 |
| 24.5 | -1.74 | 0.4591 | -0.8 |  |  |  |  |

Based on the table above, the reseracher found that $\mathrm{x}^{2}$ count $=-1.81$ while $\mathrm{x}_{\text {table }}^{2}=$, cause $\mathrm{x}^{2}{ }_{\text {count }}<\mathrm{x}_{\text {table }}^{2}(-1.81<11.070)$ with degree of freedom $(\mathrm{dk})=6-1=5$ and significant level $\alpha=5 \%$. So distribution of VIII 5 class (pre-test) is normal.
6. Median

| No | Interval | F | Fk |
| :---: | :---: | :---: | :---: |
| 1 | $25-29$ | 3 | 3 |
| 2 | $30-34$ | 2 | 5 |
| 3 | $35-39$ | 5 | 10 |
| 4 | $\mathbf{4 0}-\mathbf{4 4}$ | 6 | 16 |
| 5 | $45-49$ | 3 | 19 |
| 6 | $50-54$ | 5 | 24 |


| 7 | $55-59$ | 4 | 28 |
| :--- | :---: | :---: | :---: |

Position of Me in the interval of classes is number 4, that:
$\mathrm{Bb}=39.5$
$\mathrm{F}=10$
$\mathrm{fm}=6$
i $=5$
$\mathrm{n}=28$
$1 / 2 n=14$
So :

$$
\begin{aligned}
\mathrm{Me} & =\mathrm{Bb}+\mathrm{i}\left(\frac{n / 2-F}{f m}\right) \\
& =39.5+5\left(\frac{14-10}{6}\right) \\
& =39.5+5(0.67) \\
& =39.5+3.35 \\
& =42.85
\end{aligned}
$$

## 7. Modus

| No | Interval | F | Fk |
| :---: | :---: | :---: | :---: |
| 1 | $25-29$ | 3 | 3 |
| 2 | $30-34$ | 2 | 5 |
| 3 | $35-39$ | 5 | 10 |
| 4 | $\mathbf{4 0}-\mathbf{4 4}$ | 6 | 16 |
| 5 | $45-49$ | 3 | 19 |
| 6 | $50-54$ | 5 | 24 |
| 7 | $55-59$ | 4 | 28 |

$\mathrm{M}_{\mathrm{o}}=L+\frac{d_{1}}{d_{1}+d_{2}} i$
$\mathrm{L}=39.5$
$\mathrm{d}_{1}=1$
$\mathrm{d}_{2}=3$
i $=5$
So,

$$
\begin{aligned}
\mathrm{M}_{\mathrm{o}} & =39.5+\frac{1}{1+3} 5 \\
& =39.5+0.25(5) \\
& =39.5+1.25
\end{aligned}
$$

$$
=40.75
$$

## RESULT OF THE NORMALITY TEST OF VIII 6 IN PRE-TEST

1. The score of VIII 6 class in pre test from low score to high score:

| 15 | 15 | 15 | 15 | 15 | 20 | 25 | 25 | 25 | 25 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 25 | 25 | 30 | 30 | 30 | 30 | 30 | 35 | 35 | 35 |
| 40 | 40 | 40 | 45 | 45 | 45 | 50 | 55 |  |  |

2. High $=55$

$$
\text { Low } \quad=15
$$

$$
\text { Range } \quad=\text { High }- \text { Low }
$$

$$
=55-15
$$

$$
=40
$$

3. Total of Classes $=1+3,3 \log (\mathrm{n})$

$$
\begin{aligned}
& =1+3,3 \log (28) \\
& =1+3,3(1.44) \\
& =1+4.75 \\
& =5.75 \\
& =6
\end{aligned}
$$

4. Length of Classes $=\frac{\text { range }}{\text { totalofclass }}=\frac{40}{6}=6,67=7$
5. Mean

| Interval Class | F | X | x | fx | $\mathrm{x}^{2}$ | $\mathrm{fx}^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $15-21$ | 6 | 18 | +2 | 12 | 4 | 24 |
| $22-28$ | 6 | 25 | +1 | 6 | 1 | 6 |
| $29-35$ | 8 | $\mathbf{3 2}$ | 0 | 0 | 0 | 0 |
| $36-42$ | 3 | 39 | -1 | -3 | 1 | 3 |
| $43-49$ | 3 | 46 | -2 | -6 | 4 | 12 |
| $50-56$ | 2 | 53 | -3 | -6 | 9 | 18 |
| $i=7$ | 28 | - | - | 3 | - | 63 |

$$
\begin{aligned}
M x= & M^{1}+i \frac{\Sigma f x^{1}}{N} \\
& =32+7\left(\frac{3}{28}\right) \\
& =32+7(0.10) \\
& =32+(0.7) \\
& =32.7
\end{aligned}
$$

$$
\mathrm{SD}_{\mathrm{t}}=i \sqrt{\frac{\sum f x^{2}}{n}-\left(\frac{\sum f x \prime}{n}\right)^{2}}
$$

$$
\begin{aligned}
& =7 \sqrt{\frac{63}{28}-\left(\frac{3}{28}\right)^{2}} \\
& =7 \sqrt{2.25-(0.10)^{2}} \\
& =7 \sqrt{2.25-0.01} \\
& =7 \sqrt{2.24} \\
& =7 \times 1.49=10.43
\end{aligned}
$$

Table of Normality Data Test with Chi Kuadrad Formula

| Interval <br> of Score | Real <br> Upper <br> Limit | Z - Score | Limit of <br> Large of the <br> Area | Large of <br> area | $\mathrm{f}_{\mathrm{h}}$ | $\mathrm{f}_{0}$ | $\frac{\left(\mathrm{f}_{0}-\mathrm{f}_{\mathrm{h}}\right)}{\mathrm{f}_{\mathrm{h}}}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $50-56$ | 56.5 | 2.28 | 0.4887 | 0.04 | 1.12 | 2 | 2.12 |
| $43-49$ | 49.5 | 1.61 | 0.4463 | 0.12 | 3.36 | 3 | -0.10 |
| $36-42$ | 42.5 | 0.93 | 0.3238 | 0.22 | 6.16 | 3 | -0.51 |
| $29-35$ | 35.5 | 0.26 | 0.1026 | -0.05 | -1.4 | 8 | -6.71 |
| $22-28$ | 28.5 | -0.40 | 0.1554 | -0.20 | -5.6 | 6 | -2.07 |
| $15-21$ | 21.5 | -1.07 | 0.3577 | -0.09 | -2.52 | 6 | -3.38 |
|  | 14.5 | -1.7 | 0.4554 |  |  |  |  |

Based on the table above, the reseracher found that $x^{2}$ count $=-10.65$ while $x_{\text {table }}^{2}=$, cause $\mathrm{x}_{\text {count }}^{2}<\mathrm{x}_{\text {table }}^{2}(-10.65<11.070)$ with degree of freedom $(\mathrm{dk})=6-1=5$ and significant level $\alpha=5 \%$. So distribution of VIII 6 class (pre-test) is normal.
6. Median

| No | Interval | F | Fk |
| :---: | :---: | :---: | :---: |
| 1 | $15-21$ | 6 | 6 |
| 2 | $22-28$ | 6 | 12 |
| 3 | $\mathbf{2 9}-\mathbf{3 5}$ | 8 | 20 |
| 4 | $36-42$ | 3 | 23 |
| 5 | $43-49$ | 3 | 26 |
| 6 | $50-56$ | 2 | 28 |

Position of Me in the interval of classes is number 3, that:
$\mathrm{Bb}=28.5$

$$
\begin{array}{ll}
\mathrm{F} & =12 \\
\mathrm{fm} & =8 \\
\mathrm{i} & =7 \\
\mathrm{n} & =28 \\
1 / 2 \mathrm{n} & =14
\end{array}
$$

So :

$$
\begin{aligned}
\mathrm{Me} & =\mathrm{Bb}+\mathrm{i}\left(\frac{n / 2-F}{f m}\right) \\
& =28.5+7\left(\frac{14-12}{8}\right) \\
& =28.5+7(0.25) \\
& =28.5+1.75 \\
& =30.25
\end{aligned}
$$

7. Modus

| No | Interval | F | Fk |
| :---: | :---: | :---: | :---: |
| 1 | $15-21$ | 6 | 6 |
| 2 | $22-28$ | 6 | 12 |
| 3 | $\mathbf{2 9}-\mathbf{3 5}$ | 8 | 20 |
| 4 | $36-42$ | 3 | 23 |
| 5 | $43-49$ | 3 | 26 |
| 6 | $50-56$ | 2 | 28 |

$\mathrm{M}_{\mathrm{o}}=L+\frac{d_{1}}{d_{1}+d_{2}} i$
$\mathrm{L}=28.5$
$\mathrm{d}_{1}=2$
$\mathrm{d}_{2}=5$
i $=7$
So,

$$
\begin{aligned}
\mathrm{M}_{\mathrm{o}} & =28.5+\frac{2}{2+5} 7 \\
& =28.5+0.28(7) \\
& =28.5+1.96 \\
& =30.46
\end{aligned}
$$

## Appendix 17

## HOMOGENEITY TEST (PRE-TEST)

Calculation of parameter to get variant of the first class as experimental class sample and variant of the second class as control class sample are used homogeneity test by using formula:
$\mathrm{S}^{2}=\frac{n \Sigma x i^{2}-(\Sigma x i)}{n(n-1)}$

Hypotheses:
$\mathrm{H}_{0} \quad: \delta_{1}^{2}=\delta_{2}^{2}$
$\mathrm{H}_{1} \quad: \delta_{1}^{2} \neq \delta_{2}^{2}$
A. Variant of the VIII- 5 class is:

| $\mathbf{N O}$ | $\mathbf{X i}$ | $\mathbf{X i}^{\mathbf{2}}$ |
| :---: | :---: | :---: |
| 1. | 35 | 1225 |
| 2. | 35 | 1225 |
| 3. | 25 | 625 |
| 4. | 40 | 1600 |
| 5. | 35 | 1225 |
| 6. | 50 | 2500 |
| 7. | 35 | 1225 |
| 8. | 55 | 3025 |
| 9. | 45 | 2025 |
| 10. | 40 | 1600 |
| 11. | 25 | 625 |
| 12. | 40 | 1600 |
| 13. | 40 | 1600 |
| 14. | 55 | 3025 |
| 15. | 35 | 1225 |
| 16. | 25 | 625 |
| 17. | 55 | 3025 |
| 18. | 40 | 1600 |
| 19. | 50 | 2500 |
| 20. | 40 | 1600 |
| 21. | 45 | 2025 |
| 22. | 50 | 2500 |
| 23. | 45 | 2025 |
| 24. | 50 | 2500 |
| 25. | 50 | 2500 |
| 26. | 55 | 3025 |
| 27. | 30 | 900 |
| 28. | 30 | 900 |
|  |  |  |

n $=28$
$\sum x i=1155$
$\sum_{X i} 2=50075$
So:

$$
\begin{aligned}
S^{2} & =\frac{n \sum x i^{2}-\left(\sum x i\right)}{n(n-1)} \\
& =\frac{28(50075)-(1155)^{2}}{28(28-1)} \\
& =\frac{1402100-1334025}{28(27)} \\
& =\frac{68075}{756} \\
& =90.04
\end{aligned}
$$

B. Variant of the VIII 6 class is:

| $\mathbf{N O}$ | $\mathbf{X i}$ | $\mathbf{X i}^{\mathbf{2}}$ |
| :---: | :---: | :---: |
| 1. | 40 | 1600 |
| 2. | 50 | 2500 |
| 3. | 30 | 900 |
| 4. | 15 | 225 |
| 5. | 20 | 400 |
| 6. | 25 | 625 |
| 7. | 45 | 2025 |
| 8. | 40 | 1600 |
| 9. | 35 | 1225 |
| 10. | 45 | 2025 |
| 11. | 15 | 225 |
| 12. | 15 | 225 |
| 13. | 25 | 625 |
| 14. | 25 | 625 |
| 15. | 35 | 1225 |
| 16. | 30 | 900 |
| 17. | 25 | 625 |
| 18. | 30 | 900 |
| 19. | 15 | 225 |
| 20. | 40 | 1600 |
| 21. | 30 | 900 |
| 22. | 25 | 625 |
| 23. | 45 | 2025 |
| 24. | 55 | 3025 |
| 25. | 35 | 1225 |
| 26. | 30 | 900 |
| 27. | 25 | 625 |
| 28. | 15 | 225 |


| Total | 860 | 29850 |
| :--- | :--- | :--- |

$$
\begin{aligned}
& \mathrm{N}=28 \\
& \sum_{\sum_{x i}} x i=860 \\
& \sum_{x i} 29850
\end{aligned}
$$

So:

$$
\begin{aligned}
S^{2} & =\frac{n \sum x i^{2}-\left(\sum x i\right)}{n(n-1)} \\
& =\frac{28(29850)-(860)^{2}}{28(28-1)} \\
& =\frac{835800-739600}{28(27)} \\
& =\frac{96200}{756} \\
& =127.2
\end{aligned}
$$

The Formula was used to test the hypothesis was:

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

VIII 5 and VIII 6 :

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

So:

$$
\begin{aligned}
\mathrm{F} & =\frac{127.2}{90.04} \\
& =1.41
\end{aligned}
$$

After doing the calculation, researcher found that $\mathrm{F}_{\text {count }}=1.41$. It had been compared to $\mathrm{F}_{\text {table }}$ with $\alpha 5 \%$ and dk numerator and deminator were same ( $\mathrm{n}_{1}$ and $\mathrm{n}_{2}=$ $28 ; \mathrm{dk}=28-1=27$ ). From the distribution list F , researcher found that $\mathrm{F}_{\text {table }}=2.66$, so $\mathrm{F}_{\text {count }}<\mathrm{F}_{\text {table }}(1.41<2.66)$. It could be concluded that there is no difference variant between the VIII 5 class and VIII 6 class. It means that the variant is homogenous.

## Appendix 18

## Score of Experimental Class and Control Class

## Pre Test

a. Pre Test Score of Experimental Class

| No | The Name <br> Of Students (N) | Pre Test |
| :---: | :--- | :---: |
| 1 | Ahmad Fauzan Pulungan | 35 |
| 2 | Amran Rosyadi Harahap | 35 |
| 3 | Azizah Lubis | 25 |
| 4 | Cika Rindy A Sitorus | 40 |
| 5 | Deni Misbar Hasibuan | 35 |
| 6 | Desri Sauti Adha Pohan | 50 |
| 7 | Dian Hargiansyah | 35 |
| 8 | Diana | 55 |
| 9 | Didit Damar Ardiansyah Daulay | 45 |
| 10 | Dika Permana | 40 |
| 11 | Halimatus Sakdiah Harahap | 25 |
| 12 | Hoirul Anwar Harahap | 40 |
| 13 | Hotmartua Sianipar | 40 |
| 14 | Ilham Dalimunthe | 55 |
| 15 | Ilham Daud | 35 |
| 16 | Indah Lestari | 25 |
| 17 | Isra Laila Hasibuan | 55 |
| 18 | Nabila Putri Utami Lubis | 40 |
| 19 | Nabila Ramadani | 50 |
| 20 | Saiful Anwar Siregar | 40 |
| 21 | Sail Putra Perdana Nasution | 45 |
| 22 | Sarah Amalia Sitompul | 50 |
| 23 | Siska Adelina Harahap | 45 |
| 24 | Sofi Nawari Br.Pasaribu | 50 |
| 25 | Syahril Ananda | 50 |
| 26 | Wahyu Pranata Surya | 55 |
| 27 | Yusril Tri Alfarizi | 30 |
| 28 | Zaky Siregar | 30 |
|  |  | $\mathbf{1 1 5 5}$ |
|  |  |  |

b. Pre Test Score of Control Class

| No | The Name <br> Of Students (N) | Pre-Test |  |  |
| :---: | :--- | :---: | :---: | :---: |
| 1 | Achmad Rizky Ramadhan Lubis | 40 |  |  |
| 2 | Agung Sudarta | 50 |  |  |
| 3 | Ahmad Al Farizi Hutasuhut | 30 |  |  |
| 4 | Ahmad Sahri Ramdan Hasibuan | 15 |  |  |
| 5 | Aisyah Harahap | 20 |  |  |
| 6 | Aji Ariansyah Daulay | 25 |  |  |
| 7 | Beny Alaska Harahap | 45 |  |  |
| 8 | Borkat Akbar | 40 |  |  |
| 9 | Bryan Alaro Risky | 35 |  |  |
| 10 | Dimas Ariyansyah | 45 |  |  |
| 11 | Dina Evolisa Hasibuan | 15 |  |  |
| 12 | Dita Abaditsa Hasibuan | 15 |  |  |
| 13 | Hasan Jamil | 25 |  |  |
| 14 | Hasnawiyah Hasibuan | 25 |  |  |
| 15 | Hasoma Linni | 35 |  |  |
| 16 | Hazmi Imi Rambe | 30 |  |  |
| 17 | Ikbal Siregar | 25 |  |  |
| 18 | Karin Pebri Yanti | 30 |  |  |
| 19 | Khoirunnisa | 15 |  |  |
| 20 | Kholiza Julianti Siregar | 40 |  |  |
| 21 | Kurnia Setiawan | 30 |  |  |
| 22 | M. Adnan Saidi Nasution | 25 |  |  |
| 23 | Mutiara Safitri | 45 |  |  |
| 24 | Nia Rahma Safitri | 55 |  |  |
| 25 | Nur Aisyah | 35 |  |  |
| 26 | Putra Sulaiman Siregar | 30 |  |  |
| 27 | Riky Pratama | 25 |  |  |
| 28 | Ulil Amri Dalimunthe | 15 |  |  |
|  | Total |  |  | $\mathbf{8 6 0}$ |

## Appendix 19

The Score of Control Class in Pre Test and Post Test

| No | The Name <br> Of Students (N) | Pre-Test | Post-Test |
| :---: | :--- | :---: | :---: |
| 1 | Achmad Rizky Ramadhan Lubis | 40 | 45 |
| 2 | Agung Sudarta | 50 | 70 |
| 3 | Ahmad Al Farizi Hutasuhut | 30 | 75 |
| 4 | Ahmad Sahri Ramdan Hasibuan | 15 | 45 |
| 5 | Aisyah Harahap | 20 | 60 |
| 6 | Aji Ariansyah Daulay | 25 | 60 |
| 7 | Beny Alaska Harahap | 45 | 45 |
| 8 | Borkat Akbar | 40 | 60 |
| 9 | Bryan Alaro Risky | 35 | 50 |
| 10 | Dimas Ariyansyah | 45 | 70 |
| 11 | Dina Evolisa Hasibuan | 15 | 65 |
| 12 | Dita Abaditsa Hasibuan | 25 | 65 |
| 13 | Hasan Jamil | 65 |  |
| 14 | Hasnawiyah Hasibuan | 35 | 50 |
| 15 | Hasoma Linni | 30 | 50 |
| 16 | Hazmi Ilmi Rambe | 25 | 75 |
| 17 | Ikbal Siregar | 30 | 60 |
| 18 | Karin Pebri Yanti | 15 | 55 |
| 19 | Khoirunnisa | 40 | 55 |
| 20 | Kholiza Julianti Siregar | 30 | 55 |
| 21 | Kurnia Setiawan | 25 | 60 |
| 22 | M. Adnan Saidi Nasution | 45 | 60 |
| 23 | Mutiara Safitri | 55 | 65 |
| 24 | Nia Rahma Safitri | 35 | 60 |
| 25 | Nur Aisyah | 30 | 60 |
| 26 | Putra Sulaiman Siregar | 25 | 55 |
| 27 | Riky Pratama | $\mathbf{8 6 0}$ | $\mathbf{1 6 5 5}$ |
| 28 | Ulil Amri Dalimunthe |  |  |
|  | Total |  | 55 |

## Appendix 20

## RESULT OF NORMALITY TEST IN POST TEST

RESULT OF THE NORMALITY TEST OF VIII 5 IN POST-TEST
8. The score of VIII 5 class in post test from low score to high score:

| 60 | 60 | 70 | 70 | 75 | 75 | 75 | 75 | 75 | 75 |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :---: | :---: |
| 75 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 85 |  |  |
| 85 | 85 | 85 | 90 | 90 | 95 | 95 | 95 |  |  |  |  |

9. High $=95$
10. Total of Classes $=1+3,3 \log (n)$

Low $=60$

$$
\begin{aligned}
& =1+3,3 \log (28) \\
& =1+3,3(1.44) \\
& =1+4.75 \\
& =5.75=6
\end{aligned}
$$

4. Length of Classes $=\frac{\text { range }}{\text { totalofclass }}=\frac{35}{6}=5.83=6$
5. Mean

| Interval Class | F | X | x | fx | $\mathrm{x}^{\prime 2}$ | $\mathrm{fx}^{\prime 2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $60-65$ | 2 | 62.5 | +3 | 6 | 9 | 18 |
| $66-71$ | 2 | 68.5 | +2 | 4 | 4 | 8 |
| $72-77$ | 7 | 74.5 | +1 | 7 | 1 | 7 |
| $78-83$ | 8 | $\mathbf{8 0 . 5}$ | 0 | 0 | 0 | 0 |
| $84-89$ | 4 | 86.5 | -1 | -4 | 1 | 4 |
| $90-95$ | 5 | 92.5 | -2 | -10 | 2 | 20 |
| $i=6$ | 28 | - | - | 3 | - | 57 |

$$
\begin{aligned}
M x & =M^{1}+i \frac{\Sigma f x^{1}}{N} \\
& =80.5+6\left(\frac{3}{28}\right) \\
& =80.5+6(0.10) \\
& =80.5+(0.6) \\
& =81.1
\end{aligned}
$$

$$
\begin{aligned}
\mathrm{SD}_{\mathrm{t}} & =i \sqrt{\frac{\sum f x^{2}}{n}-\left(\frac{\sum f x \prime}{n}\right)^{2}} \\
& =6 \sqrt{\frac{57}{28}-\left(\frac{3}{28}\right)^{2}} \\
& =6 \sqrt{2.03-(0.10)^{2}} \\
& =6 \sqrt{2.03-0.01} \\
& =6 \sqrt{2.02}=6 \times 1.42=8.52
\end{aligned}
$$

Table of Normality Data Test with Chi Kuadrad Formula

| Interval of Score | Real <br> Upper <br> Limit | Z - Score | Limit of Large of the Area | Large of area | $\mathrm{f}_{\mathrm{h}}$ | $\mathrm{f}_{0}$ | $\underline{\left(\mathrm{f}_{0}-\mathrm{f}_{\mathrm{h}}\right)} \mathrm{f}_{\mathrm{h}}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 90-95 | 95.5 | 1.69 | 0.4549 |  |  |  |  |
|  |  |  |  | 0.11 | 3.08 | 5 | 0.62 |
| 84-89 | 89.5 | 0.98 | 0.3365 |  |  |  |  |
|  |  |  |  | 0.22 | 6.16 | 4 | -0.35 |
| $78-83$ | 83.5 | 0.28 | 0.1103 |  |  |  |  |
|  |  |  |  | -0.05 | -1.4 | 8 | -6.71 |
| 72-77 | 77.5 | -0.42 | 0.1628 |  |  |  |  |
|  |  |  |  | 0.10 | 2.8 | 7 | 1.5 |
| 66-71 | 71.5 | -1.12 | 0.3686 |  |  |  |  |
|  |  |  |  | -0.20 | -5.6 | 2 | -1.37 |
| 60-65 | 65.5 | -1.83 | 0.4664 |  |  |  |  |
|  |  |  |  | 0.06 | 1.68 | 2 | 0.19 |
|  | 59.5 | -2.53 | 0.4043 |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | X | -6.12 |

Based on the table above, the reseracher found that $\mathrm{x}_{\text {count }}^{2}=-6.12$ while $\mathrm{x}_{\text {table }}^{2}=11.070$, cause $\mathrm{x}_{\text {count }}^{2}<\mathrm{x}_{\text {table }}^{2}(-6.12<11.070)$ with degree of freedom $(\mathrm{dk})=6-1=5$ and significant level $\alpha$ $=5 \%$. So distribution of VIII 5 class (post-test) is normal.
6. Median

| No | Interval | F | Fk |
| :---: | :---: | :---: | :---: |
| 1 | $60-65$ | 2 | 2 |
| 2 | $66-71$ | 2 | 4 |
| 3 | $72-77$ | 7 | 11 |
| 4 | $\mathbf{7 8}-\mathbf{8 3}$ | 8 | 19 |
| 5 | $84-89$ | 4 | 23 |
| 6 | $90-95$ | 5 | 28 |

Position of Me in the interval of classes is number 4, that:
$\mathrm{Bb}=77.5$
$\mathrm{F}=11$
$\mathrm{fm}=8$
i $=6$
$\mathrm{n}=28$
$1 / 2 \mathrm{n}=14$
So :
$\mathrm{Me}=\mathrm{Bb}+\mathrm{i}\left(\frac{n / 2-F}{f m}\right)$
$=77.5+6\left(\frac{14-11}{8}\right)$

$$
\begin{aligned}
& =77.5+6(0.375) \\
& =77.5+2.25 \\
& =79.75
\end{aligned}
$$

7. Modus

| No | Interval | F | Fk |
| :---: | :---: | :---: | :---: |
| 1 | $60-65$ | 2 | 2 |
| 2 | $66-71$ | 2 | 4 |
| 3 | $72-77$ | 7 | 11 |
| 4 | $\mathbf{7 8}-\mathbf{8 3}$ | 8 | 19 |
| 5 | $84-89$ | 4 | 23 |
| 6 | $90-95$ | 5 | 28 |

$\mathrm{M}_{\mathrm{o}}=L+\frac{d_{1}}{d_{1}+d_{2}} i$
So, $M_{o}=77.5+\frac{1}{1+4} 6$
$\mathrm{L}=77.5$
$=77.5+0.2(6)$
$\mathrm{d}_{1}=1$
$=77.5+1.2$
$\mathrm{d}_{2}=4$
$=78.7$
i $=6$

## RESULT OF THE NORMALITY TEST OF VIII 6 IN POST-TEST

8. The score of VIII 6 class in post test from low score to high score:

| 45 | 45 | 45 | 50 | 50 | 50 | 55 | 55 | 55 | 55 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 55 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 65 |
| 65 | 65 | 65 | 65 | 70 | 70 | 75 | 75 |  |  |

9. High $=75$

$$
\begin{array}{ll}
\text { Low } & =45 \\
\text { Range } & =\text { High }- \text { Low } \\
& =75-45 \\
& =30
\end{array}
$$

3. Total of Classes $=1+3,3 \log (\mathrm{n})$

$$
\begin{aligned}
& =1+3,3 \log (28) \\
& =1+3,3(1.44) \\
& =1+4.75 \\
& =5.75=6
\end{aligned}
$$

4. Length of Classes $=\frac{\text { range }}{\text { totalofclass }}=\frac{30}{6}=5$
5. Mean

| Interval Class | F | X | x | fx | $\mathrm{x}^{\prime 2}$ | $\mathrm{fx}^{\prime 2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $45-49$ | 3 | 47 | 3 | 9 | 9 | 27 |
| $50-54$ | 3 | 52 | 2 | 6 | 4 | 12 |
| $55-59$ | 5 | 52 | 1 | 5 | 1 | 5 |
| $60-64$ | 8 | $\mathbf{6 2}$ | 0 | 0 | 0 | 0 |
| $65-69$ | 5 | 67 | -1 | -5 | 1 | 5 |
| $70-74$ | 2 | 72 | -2 | -4 | 2 | 8 |
| $75-79$ | 2 | 77 | -3 | -6 | 3 | 18 |
| $i=5$ | 28 | - | - | 5 | - | 75 |

$$
\begin{aligned}
M x & =M^{1}+i \frac{\Sigma f x^{1}}{N} \\
& =62+5\left(\frac{5}{28}\right) \\
& =62+5(0.17) \\
& =62+(0.85) \\
& =62.85
\end{aligned}
$$

Table of Normality Data Test with Chi Kuadrad Formula

| Interval <br> of Score | Real <br> Upper <br> Limit | $\mathrm{Z}-$ Score | Limit of <br> Large of the <br> Area | Large of <br> area | $f_{h}$ | $f_{0}$ | $\left(f_{0}-f_{h}\right)$ <br> $f_{h}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $75-79$ | 79.5 | 2.05 | 0.4798 | 0.05 | 1.4 | 2 | 0.42 |
| $70-74$ | 74.5 | 1.43 | 0.4236 | 0.12 | 3.36 | 2 | -0.40 |
| $65-69$ | 69.5 | 0.82 | 0.2939 | 0.21 | 5.88 | 5 | -0.14 |
| $60-64$ | 64.5 | 0.20 | 0.0793 | -0.07 | -1.96 | 8 | -5.08 |
| $55-59$ | 59.5 | -0.41 | 0.1591 | -0.18 | -5.04 | 5 | -1.99 |
| $50-54$ | 54.5 | -1.03 | 0.3485 | -0.10 | -2.8 | 3 | -2.07 |
| $45-49$ | 49.5 | -1.64 | 0.4495 | -0.03 | -0.84 | 3 | -4.57 |
|  | 44.5 | -2.26 | 0.4881 |  |  |  |  |

Based on the table above, the reseracher found that $\mathrm{x}^{2}{ }_{\text {count }}=-13.83$ while $\mathrm{x}_{\text {table }}^{2}=11.070$, ${ }^{\text {cause }} \mathrm{x}^{2}{ }_{\text {count }}<\mathrm{x}_{\text {table }}^{2}(-13.83<11.070)$ with degree of freedom $(\mathrm{dk})=6-1=5$ and significant level $\alpha$ $=5 \%$. So distribution of VIII 6 class (post-test) is normal.
6. Median

| No | Interval | F | Fk |
| :---: | :---: | :---: | :---: |
| 1 | $45-49$ | 3 | 3 |
| 2 | $50-54$ | 3 | 6 |
| 3 | $\mathbf{5 5 - 5 9}$ | 5 | 11 |
| 4 | $60-64$ | 8 | 19 |
| 5 | $65-69$ | 5 | 24 |
| 6 | $70-74$ | 2 | 26 |
| 7 | $75-79$ | 2 | 28 |

Position of Me in the interval of classes is number 3, that:
$\mathrm{Bb}=54.5$
$\mathrm{F}=6$
$\mathrm{fm}=5$
i $=5$
n $=28$
$1 / 2 \mathrm{n}=14$
So :

$$
\begin{aligned}
\mathrm{Me} & =\mathrm{Bb}+\mathrm{i}\left(\frac{n / 2-F}{f m}\right) \\
& =54.5+5\left(\frac{14-6}{5}\right) \\
& =54.5+5(1.6) \\
& =54.5+8 \\
& =62.5
\end{aligned}
$$

7. Modus

| No | Interval | F | Fk |
| :---: | :---: | :---: | :---: |
| 1 | $45-49$ | 3 | 3 |
| 2 | $50-54$ | 3 | 6 |
| 3 | $55-59$ | 5 | 11 |
| 4 | $\mathbf{6 0}-\mathbf{6 4}$ | 8 | 19 |
| 5 | $65-69$ | 5 | 24 |
| 6 | $70-74$ | 2 | 26 |
| 7 | $75-79$ | 2 | 28 |

$\mathrm{M}_{\mathrm{o}}=L+\frac{d_{1}}{d_{1}+d_{2}} i$
$\mathrm{L}=54.5$
$\mathrm{d}_{1}=3$
$\mathrm{d}_{2}=3$
i $=5$
So,
$M_{0}=54.5+\frac{3}{3+3} 5$
$=54.5+0.5(5)$
$=54.5+2.5$
$=57$

## Appendix 21

## HOMOGENEITY TEST (POST-TEST)

Calculation of parameter to get variant of the first class as experimental class sample and variant of the second class as control class sample are used homogeneity test by using formula:
$S^{2}=\frac{n \Sigma x i^{2}-(\Sigma x i)}{n(n-1)}$
Hypotheses:
$\mathrm{H}_{0} \quad: \delta_{1}^{2}=\delta_{2}^{2}$
$\mathrm{H}_{1} \quad: \delta_{1}^{2} \neq \delta_{2}^{2}$
C. Variant of the VIII- 5 class is:

| NO | Xi | $\mathbf{X i}{ }^{2}$ |
| :---: | :---: | :---: |
| 29. | 60 | 3600 |
| 30. | 80 | 6400 |
| 31. | 75 | 5625 |
| 32. | 75 | 5625 |
| 33. | 95 | 9025 |
| 34. | 75 | 5625 |
| 35. | 85 | 7225 |
| 36. | 85 | 7225 |
| 37. | 90 | 8100 |
| 38. | 75 | 5625 |
| 39. | 75 | 5625 |
| 40. | 80 | 6400 |
| 41. | 60 | 3600 |
| 42. | 85 | 7225 |
| 43. | 70 | 4900 |
| 44. | 70 | 4900 |
| 45. | 80 | 6400 |
| 46. | 85 | 7225 |
| 47. | 80 | 6400 |
| 48. | 90 | 8100 |
| 49. | 80 | 6400 |
| 50. | 75 | 5625 |
| 51. | 75 | 5625 |
| 52. | 80 | 6400 |
| 53. | 95 | 9025 |
| 54. | 80 | 6400 |
| 55. | 80 | 6400 |
| 56. | 95 | 9025 |
| Total | 2230 | 179750 |

$$
\begin{aligned}
& \mathrm{n}=28 \\
& \sum x i=2230 \\
& \sum_{x i} 2=179750
\end{aligned}
$$

So:

$$
\begin{aligned}
S^{2} & =\frac{n \Sigma x i^{2}-(\Sigma x i)}{n(n-1)} \\
& =\frac{28(179750)-(2230)^{2}}{28(28-1)} \\
& =\frac{5033000-4972900}{28(27)} \\
& =\frac{60100}{756} \\
& =79.49
\end{aligned}
$$

D. Variant of the VIII 6 class is:

| $\mathbf{N O}$ | $\mathbf{X i}$ | $\mathbf{X i}^{\mathbf{2}}$ |
| :---: | :---: | :---: |
| 29. | 45 | 2025 |
| 30. | 70 | 4900 |
| 31. | 75 | 5625 |
| 32. | 45 | 2025 |
| 33. | 60 | 3600 |
| 34. | 60 | 3600 |
| 35. | 45 | 2025 |
| 36. | 60 | 3600 |
| 37. | 50 | 2500 |
| 38. | 70 | 4900 |
| 39. | 65 | 4225 |
| 40. | 65 | 4225 |
| 41. | 65 | 4225 |
| 42. | 50 | 2500 |
| 43. | 55 | 3025 |
| 44. | 50 | 2500 |
| 45. | 75 | 5625 |
| 46. | 60 | 3600 |
| 47. | 55 | 3025 |
| 48. | 55 | 3025 |
| 49. | 55 | 3025 |
| 50. | 60 | 3600 |
| 51. | 60 | 3600 |
| 52. | 65 | 4225 |
| 53. | 60 | 3600 |
| 54. | 60 | 3600 |
| 55. | 55 | 3025 |
| 56. | 65 | 4225 |
| Total | 1655 | 99675 |
|  |  |  |
|  |  |  |

$$
\mathrm{n}=28
$$

$$
\sum x i=1655
$$

$$
\sum_{x i} 2=99675
$$

So:

$$
\begin{aligned}
S^{2} & =\frac{n \sum x i^{2}-\left(\sum x i\right)}{n(n-1)} \\
& =\frac{28(99675)-(1655)^{2}}{28(28-1)} \\
& =\frac{2790900-2739025}{28(27)} \\
& =\frac{51875}{756} \\
& =68.61
\end{aligned}
$$

The Formula was used to test the hypothesis was:

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

So:

$$
\begin{aligned}
F= & \frac{79.49}{68.61} \\
& =1.15
\end{aligned}
$$

After doing the calculation, researcher found that $\mathrm{F}_{\text {count }}=1.15$. It had been compared to $\mathrm{F}_{\text {table }}$ with $\alpha 5 \%$ and dk numerator and deminator were same ( $\mathrm{n}_{1}$ and $\mathrm{n}_{2}=$ $28 ; \mathrm{dk}=28-1=27$ ). From the distribution list F , researcher found that $\mathrm{F}_{\text {table }}=2.66$, so $\mathrm{F}_{\text {count }}<\mathrm{F}_{\text {table }}(1.15<2.66)$. It could be concluded that there is no difference variant between the VIII 5 class and VIII 6 class. It means that the variant is homogenous.

## Appendix 22

## T-test of the Both Averages in Pre-Test

The formula was used to analyse homogeneity test of the both averages was $t$-test, that:
$T t=\frac{X_{1}-X_{2}}{\sqrt{\left(\frac{\left(n_{1}-1\right) s_{1}^{2}+\left(n_{2}-1\right) s_{2}^{2}}{n_{1}+n_{2}-2}\right)\left(\frac{1}{n_{1}}+\frac{1}{n_{2}}\right)}}$
$T t=\frac{32.7-40.75}{\sqrt{\left(\frac{(28-1) 90.04+(28-1) 127.2}{28+28-2}\right)\left(\frac{1}{28}+\frac{1}{28}\right)}}$
$T t=\frac{-8.05}{\sqrt{\left(\frac{27(90.04)+27(127.2)}{54}\right)\left(\frac{2}{28}\right)}}$
$T t=\frac{-8.05}{\sqrt{\left(\frac{2431.08+3434.4}{54}\right)(0.07)}}$
$T t=\frac{-8.05}{\sqrt{(108.62)(0.07)}}$
$T t=\frac{-8.05}{\sqrt{7.60}}$
$T t=\frac{-8.05}{2.75}$
$T t=-2.92$
Based on researcher calculation result of homogeneity test of the both averages, researcher found that $\mathrm{t}_{\text {count }}=-2.92$ with opportunity $(1-\alpha)=1-5 \%=95 \%$ and $d k=n_{1}+n_{2}$ $-2=28+28-2=54, \mathrm{t}_{\text {table }}=1.67356$. So, $\mathrm{t}_{\text {count }}<\mathrm{t}_{\text {table }}(-2.92<1.67356)$ and $\mathrm{H}_{0}$ is accepted, it means no difference the average between the first class as experimental class and the second class as control class in this research.

## Appendix 23

## T-test of the Both Averages in Post-Test

The formula was used to analyse homogeneity test of the both averages was $t$-test, that:
$T t=\frac{X_{1}-X_{2}}{\sqrt{\left(\frac{\left(n_{1}-1\right) s_{1}^{2}+\left(n_{2}-1\right) s_{2}^{2}}{n_{1}+n_{2}-2}\right)\left(\frac{1}{n_{1}}+\frac{1}{n_{2}}\right)}}$
$T t=\frac{81.1-62.85}{\sqrt{\left(\frac{(28-1) 79.49+(28-1) 68.61}{28+28-2}\right)\left(\frac{1}{28}+\frac{1}{28}\right)}}$
$T t=\frac{18.25}{\sqrt{\left(\frac{27(79.49)+27(68.61)}{54}\right)\left(\frac{2}{28}\right)}}$
$T t=\frac{18.25}{\sqrt{\left(\frac{2146.23+1852.47}{54}\right)(0.07)}}$
$T t=\frac{18.25}{\sqrt{(74.05)(0.07)}}$
$T t=\frac{18.25}{\sqrt{5.18}}$
$T t=\frac{18.25}{2.27}$
$T t=8.03$
Based on researcher calculation result of homogeneity test of the both averages, researcher found that $\mathrm{t}_{\text {count }}=8.03$ with opportunity $(1-\alpha)=1-5 \%=95 \%$ and $d k=n_{1}+n_{2}-$ $2=28+28-2=54, \quad \mathrm{t}_{\text {table }}=1.67356$. So, $\mathrm{t}_{\text {count }}>\mathrm{t}_{\text {table }}(8.03>1.67356)$ and $\mathrm{H}_{\mathrm{a}}$ is accepted, it means there was the difference average between the first class as experimental class and the second class as control class in this research.

## Appendix 24

## Chi-Square Table

| $\mathbf{d k}$ | Significant level |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathbf{5 0 \%}$ | $\mathbf{3 0 \%}$ | $\mathbf{2 0 \%}$ | $\mathbf{1 0 \%}$ | $\mathbf{5 \%}$ | $\mathbf{1 \%}$ |
| $\mathbf{1}$ | 0,455 | 1,074 | 1,642 | 2,706 | 3,841 | 6,635 |
| $\mathbf{2}$ | 1,386 | 2,408 | 3,219 | 4,605 | 5,991 | 9,210 |
| $\mathbf{3}$ | 2,366 | 3,665 | 4,642 | 6,251 | 7,815 | 11,341 |
| $\mathbf{4}$ | 3,357 | 4,878 | 5,989 | 7,779 | 9,488 | 13,277 |
| $\mathbf{5}$ | 4,351 | 6,064 | 7,289 | 9,236 | 11,070 | 15,086 |
| $\mathbf{6}$ | 5,348 | 7,231 | 8,558 | 10,645 | 12,592 | 16,812 |
| $\mathbf{7}$ | 6,346 | 8,383 | 9,803 | 12,017 | 14,067 | 18,475 |
| $\mathbf{8}$ | 7,344 | 9,524 | 11,030 | 13,362 | 15,507 | 20,090 |
| $\mathbf{9}$ | 8,343 | 10,656 | 12,242 | 14,684 | 16,919 | 21,666 |
| $\mathbf{1 0}$ | 9,342 | 11,781 | 13,442 | 15,987 | 18,307 | 23,209 |
| $\mathbf{1 1}$ | 10,341 | 12,899 | 14,631 | 17,275 | 19,675 | 24,725 |
| $\mathbf{1 2}$ | 11,340 | 14,011 | 15,812 | 18,549 | 21,026 | 26,217 |
| $\mathbf{1 3}$ | 12,340 | 15,119 | 16,985 | 19,812 | 22,362 | 27,688 |
| $\mathbf{1 4}$ | 13,339 | 16,222 | 18,151 | 21,064 | 23,685 | 29,141 |
| $\mathbf{1 5}$ | 14,339 | 17,222 | 19,311 | 22,307 | 24,996 | 30,578 |
| $\mathbf{1 6}$ | 15,338 | 18,418 | 20,465 | 23,542 | 26,296 | 32,000 |
| $\mathbf{1 7}$ | 16,338 | 19,511 | 21,615 | 24,769 | 27,587 | 33,409 |
| $\mathbf{1 8}$ | 17,338 | 20,601 | 22,760 | 25,989 | 28,869 | 34,805 |
| $\mathbf{1 9}$ | 18,338 | 21,689 | 23,900 | 27,204 | 30,144 | 36,191 |
| $\mathbf{2 0}$ | 19,337 | 22,775 | 25,038 | 28,412 | 31,410 | 37,566 |
| $\mathbf{2 1}$ | 20,337 | 23,858 | 26,171 | 29,615 | 32,671 | 38,932 |
| $\mathbf{2 2}$ | 21,337 | 24,939 | 27,301 | 30,813 | 33,924 | 40,289 |
| $\mathbf{2 3}$ | 22,337 | 26.018 | 28,429 | 32,007 | 35,172 | 41,638 |
| $\mathbf{2 4}$ | 23,337 | 27,096 | 29,553 | 33,196 | 35,415 | 42,980 |
| $\mathbf{2 5}$ | 24,337 | 28,172 | 30,675 | 34,382 | 37,652 | 44,314 |
| $\mathbf{2 6}$ | 25,336 | 29,246 | 31,795 | 35,563 | 38,885 | 45,642 |
| $\mathbf{2 7}$ | 26,336 | 30,319 | 32,912 | 36,741 | 40,113 | 46,963 |
| $\mathbf{2 8}$ | 27,336 | 31,391 | 34,027 | 37,916 | 41,337 | 48,278 |
| $\mathbf{2 9}$ | 28,336 | 32,461 | 35,139 | 39,087 | 42,557 | 49,588 |
| $\mathbf{3 0}$ | 29,336 | 33,530 | 36,250 | 40,256 | 43,773 | 50,892 |
|  |  |  |  |  |  |  |

## Appendix 25

## Z-Table

| z | 0.00 | 0.01 | 0.02 | 0.03 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0.0 | 0.0000 | 0.0040 | 0.0080 | 0.0120 | 0.0160 | 0.0199 | 0.0239 | 0.0279 | 0.0319 | 0.0359 |
| 0.1 | 0.0398 | 0.0438 | 0.0478 | 0.0517 | 0.0557 | 0.0596 | 0.0636 | 0.0675 | 0.0714 | 0.0753 |
| 0.2 | 0.0793 | 0.0832 | 0.0871 | 0.0910 | 0.0948 | 0.0987 | 0.1026 | 0.1064 | 0.1103 | 0.1141 |
| 0.3 | 0.1179 | 0.1217 | 0.1255 | 0.1293 | 0.1331 | 0.1368 | 0.1406 | 0.1443 | 0.1480 | 0.1517 |
| 0.4 | 0.1554 | 0.1591 | 0.1628 | 0.1664 | 0.1700 | 0.1736 | 0.1772 | 0.1808 | 0.1844 | 0.1879 |
| 0.5 | 0.1915 | 0.1950 | 0.1985 | 0.2019 | 0.2054 | 0.208 | 0.2123 | 0.2157 | 0.2190 | 0.2224 |
| 0.6 | 0.2257 | 0.2291 | 0.2324 | 0.2357 | 0.2389 | 0.242 | 0.2454 | 0.2486 | 0.2517 | 0.2549 |
| 0.7 | 0.2580 | 0.2611 | 0.2642 | 0.2673 | 0.2704 | 0.273 | 0.2764 | 0.2794 | 0.2823 | 0.2852 |
| 0.8 | 0.2881 | 0.2910 | 0.2939 | 0.2967 | 0.2995 | 0.3023 | 0.3051 | 0.3078 | 0.3106 | 0.3133 |
| 0.9 | 0.3159 | 0.3186 | 0.3212 | 0.3238 | 0.3264 | 0.3289 | 0.3315 | 0.3340 | 0.3365 | 0.3389 |
| 1.0 | 0.3413 | 0.3438 | 0.346 | 0.3485 | 0.3508 | 0.35 | 0.3554 | 0.3577 | 0.3599 | 0.3621 |
| 1.1 | 0.3643 | 0.3665 | 0.3686 | 0.3708 | 0.3729 | 0.374 | 0.3770 | 0.3790 | 0.3810 | 0.3830 |
| 1.2 | 0.3849 | 0.3869 | 0.3888 | 0.3907 | 0.3925 | 0.3944 | 0.3962 | 0.3980 | 0.3997 | 0.4015 |
| 1.3 | 0.4032 | 0.4049 | 0.4066 | 0.4082 | 0.4099 | 0.4115 | 0.4131 | 0.4147 | 0.4162 | 0.4177 |
| 1.4 | 0.4192 | 0.4207 | 0.4222 | 0.4236 | 0.4251 | 0.4265 | 0.4279 | 0.4292 | 0.4306 | 0.4319 |
| 1.5 | 0.4332 | 0.4345 | 0.435 | 0.4370 | 0.4382 | 0.439 | 0.4406 | 0.4418 | 0.4429 | 0.4441 |
| 1.6 | 0.4452 | 0.4463 | 0.4474 | 0.4484 | 0.4495 | 0.4505 | 0.4515 | 0.4525 | 0.4535 | 0.4545 |
| 1.7 | 0.4554 | 0.4564 | 0.4573 | 0.4582 | 0.4591 | 0.4599 | 0.4608 | 0.4616 | 0.4625 | 0.4633 |
| 1.8 | 0.4641 | 0.4649 | 0.4656 | 0.4664 | 0.4671 | 0.4678 | 0.4686 | 0.4693 | 0.4699 | 0.4706 |
| 1.9 | 0.4713 | 0.4719 | 0.4726 | 0.4732 | 0.4738 | 0.4744 | 0.4750 | 0.4756 | 0.4761 | 0.4767 |
| 2.0 | 0.4772 | 0.4778 | 0.4783 | 0.4788 | 0.4793 | 0.4798 | 0.4803 | 0.4808 | 0.4812 | 0.4817 |
| 2.1 | 0.4821 | 0.4826 | 0.4830 | 0.4834 | 0.4838 | 0.4842 | 0.4846 | 0.4850 | 0.4854 | 0.4857 |
| 2.2 | 0.4861 | 0.4864 | 0.4868 | 0.4871 | 0.4875 | 0.4878 | 0.4881 | 0.4884 | 0.4887 | 0.4890 |
| 2.3 | 0.4893 | 0.4896 | 0.4898 | 0.4901 | 0.4904 | 0.4906 | 0.4909 | 0.4911 | 0.4913 | 0.4916 |
| 2.4 | 0.4918 | 0.4920 | 0.4922 | 0.4925 | 0.4927 | 0.4929 | 0.4931 | 0.4932 | 0.4934 | 0.4936 |
| 2.5 | 0.4938 | 0.4940 | 0.4941 | 0.4943 | 0.4945 | 0.4946 | 0.4948 | 0.4949 | 0.4951 | 0.4952 |
| 2.6 | 0.4953 | 0.4955 | 0.4956 | 0.4957 | 0.4959 | 0.4960 | 0.4961 | 0.4962 | 0.4963 | 0.4964 |
| 2.7 | 0.4965 | 0.4966 | 0.4967 | 0.4968 | 0.4969 | 0.4970 | 0.4971 | 0.4972 | 0.4973 | 0.4974 |


| $\mathbf{2 . 8}$ | 0.4974 | 0.4975 | 0.4976 | 0.4977 | 0.4977 | 0.4978 | 0.4979 | 0.4979 | 0.4980 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $\mathbf{2 . 9}$ | 0.4981 | 0.4982 | 0.4982 | 0.4983 | 0.4984 | 0.4984 | 0.4985 | 0.4985 | 0.4986 |
| $\mathbf{3 . 0}$ | 0.4987 | 0.4987 | 0.4987 | 0.4988 | 0.4988 | 0.4989 | 0.4989 | 0.4989 | 0.4990 |
| $\mathbf{3 , 1}$ | 0,4990 | 0,4991 | 0,4991 | 0.4991 | 0,4992 | 0,4992 | 0,4992 | 0,4992 | 0,4993 |
| $\mathbf{3 , 2}$ | 0,4993 | 0,4993 | 0,4994 | 0,4994 | 0,4994 | 0,4994 | 0,4994 | 0,4995 | 0,4995 |
| $\mathbf{3 , 3}$ | 0,4995 | 0,4995 | 0,4995 | 0,4996 | 0,4996 | 0,4996 | 0,4996 | 0,4996 | 0,4997 |
| $\mathbf{3 , 4}$ | 0,4997 | 0,4997 | 0,4997 | 0,4997 | 0,4997 | 0,4997 | 0,4997 | 0,4997 | 0,4997 |
| $\mathbf{3 , 5}$ | 0,4998 | 0,4998 | 0,4998 | 0,4998 | 0,4998 | 0,4998 | 0,4998 | 0,4998 | 0,4998 |
| $\mathbf{3 , 6}$ | 0,4998 | 0,4998 | 0,4999 | 0,4999 | 0,4999 | 0,4999 | 0,4999 | 0,4999 | 0,4999 |
| $\mathbf{3}$ | 0,4999 |  |  |  |  |  |  |  |  |
| $\mathbf{3 , 7}$ | 0,4999 | 0,4999 | 0,4999 | 0,4999 | 0,4999 | 0,4999 | 0,4999 | 0,4999 | 0,4999 |
| $\mathbf{3 , 8}$ | 0,4999 | 0,4999 | 0,4999 | 0,4999 | 0,4999 | 0,4999 | 0,4999 | 0,4999 | 0,4999 |
| $\mathbf{3 , 9}$ | 0,5000 | 0,5000 | 0,5000 | 0,5000 | 0,5000 | 0,5000 | 0,5000 | 0,5000 | 0,5000 |

## Appendix 26

## Percentage Points of the $t$ Distribution

| Pr | 0.25 | 0.10 | 0.05 | 0.025 | 0.01 | 0.005 | 0.001 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| df | 0.50 | 0.20 | 0.10 | 0.050 | 0.02 | 0.010 | 0.002 |
| 1 | 1.00000 | 3.07768 | 6.31375 | 12.70620 | 31.82052 | 63.65674 | 318.30884 |
| 2 | 0.81650 | 1.88562 | 2.91999 | 4.30265 | 6.96456 | 9.92484 | 22.32712 |
| 3 | 0.76489 | 1.63774 | 2.35336 | 3.18245 | 4.54070 | 5.84091 | 10.21453 |
| 4 | 0.74070 | 1.53321 | 2.13185 | 2.77645 | 3.74695 | 4.60409 | 7.17318 |
| 5 | 0.72669 | 1.47588 | 2.01505 | 2.57058 | 3.36493 | 4.03214 | 5.89343 |
| 6 | 0.71756 | 1.43976 | 1.94318 | 2.44691 | 3.14267 | 3.70743 | 5.20763 |
| 7 | 0.71114 | 1.41492 | 1.89458 | 2.36462 | 2.99795 | 3.49948 | 4.78529 |
| 8 | 0.70639 | 1.39682 | 1.85955 | 2.30600 | 2.89646 | 3.35539 | 4.50079 |
| 9 | 0.70272 | 1.38303 | 1.83311 | 2.26216 | 2.82144 | 3.24984 | 4.29681 |
| 10 | 0.69981 | 1.37218 | 1.81246 | 2.22814 | 2.76377 | 3.16927 | 4.14370 |
| 11 | 0.69745 | 1.36343 | 1.79588 | 2.20099 | 2.71808 | 3.10581 | 4.02470 |
| 12 | 0.69548 | 1.35622 | 1.78229 | 2.17881 | 2.68100 | 3.05454 | 3.92963 |
| 13 | 0.69383 | 1.35017 | 1.77093 | 2.16037 | 2.65031 | 3.01228 | 3.85198 |
| 14 | 0.69242 | 1.34503 | 1.76131 | 2.14479 | 2.62449 | 2.97684 | 3.78739 |
| 15 | 0.69120 | 1.34061 | 1.75305 | 2.13145 | 2.60248 | 2.94671 | 3.73283 |
| 16 | 0.69013 | 1.33676 | 1.74588 | 2.11991 | 2.58349 | 2.92078 | 3.68615 |
| 17 | 0.68920 | 1.33338 | 1.73961 | 2.10982 | 2.56693 | 2.89823 | 3.64577 |
| 18 | 0.68836 | 1.33039 | 1.73406 | 2.10092 | 2.55238 | 2.87844 | 3.61048 |
| 19 | 0.68762 | 1.32773 | 1.72913 | 2.09302 | 2.53948 | 2.86093 | 3.57940 |
| 20 | 0.68695 | 1.32534 | 1.72472 | 2.08596 | 2.52798 | 2.84534 | 3.55181 |
| 21 | 0.68635 | 1.32319 | 1.72074 | 2.07961 | 2.51765 | 2.83136 | 3.52715 |
| 22 | 0.68581 | 1.32124 | 1.71714 | 2.07387 | 2.50832 | 2.81876 | 3.50499 |
| 23 | 0.68531 | 1.31946 | 1.71387 | 2.06866 | 2.49987 | 2.80734 | 3.48496 |
| 24 | 0.68485 | 1.31784 | 1.71088 | 2.06390 | 2.49216 | 2.79694 | 3.46678 |
| 25 | 0.68443 | 1.31635 | 1.70814 | 2.05954 | 2.48511 | 2.78744 | 3.45019 |
| 26 | 0.68404 | 1.31497 | 1.70562 | 2.05553 | 2.47863 | 2.77871 | 3.43500 |
| 27 | 0.68368 | 1.31370 | 1.70329 | 2.05183 | 2.47266 | 2.77068 | 3.42103 |
| 28 | 0.68335 | 1.31253 | 1.70113 | 2.04841 | 2.46714 | 2.76326 | 3.40816 |
| 29 | 0.68304 | 1.31143 | 1.69913 | 2.04523 | 2.46202 | 2.75639 | 3.39624 |
| 30 | 0.68276 | 1.31042 | 1.69726 | 2.04227 | 2.45726 | 2.75000 | 3.38518 |
| 31 | 0.68249 | 1.30946 | 1.69552 | 2.03951 | 2.45282 | 2.74404 | 3.37490 |
| 32 | 0.68223 | 1.30857 | 1.69389 | 2.03693 | 2.44868 | 2.73848 | 3.36531 |
| 33 | 0.68200 | 1.30774 | 1.69236 | 2.03452 | 2.44479 | 2.73328 | 3.35634 |
| 34 | 0.68177 | 1.30695 | 1.69092 | 2.03224 | 2.44115 | 2.72839 | 3.34793 |
| 35 | 0.68156 | 1.30621 | 1.68957 | 2.03011 | 2.43772 | 2.72381 | 3.34005 |
| 36 | 0.68137 | 1.30551 | 1.68830 | 2.02809 | 2.43449 | 2.71948 | 3.33262 |
| 37 | 0.68118 | 1.30485 | 1.68709 | 2.02619 | 2.43145 | 2.71541 | 3.32563 |
| 38 | 0.68100 | 1.30423 | 1.68595 | 2.02439 | 2.42857 | 2.71156 | 3.31903 |
| 39 | 0.68083 | 1.30364 | 1.68488 | 2.02269 | 2.42584 | 2.70791 | 3.31279 |
| 40 | 0.68067 | 1.30308 | 1.68385 | 2.02108 | 2.42326 | 2.70446 | 3.30688 |
| 41 | 0.68052 | 1.30254 | 1.68288 | 2.01954 | 2.42080 | 2.70118 | 3.30127 |
| 42 | 0.68038 | 1.30204 | 1.68195 | 2.01808 | 2.41847 | 2.69807 | 3.29595 |


| $\mathbf{4 3}$ | 0.68024 | 1.30155 | 1.68107 | 2.01669 | 2.41625 | 2.69510 | 3.29089 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $\mathbf{4 4}$ | 0.68011 | 1.30109 | 1.68023 | 2.01537 | 2.41413 | 2.69228 | 3.28607 |
| $\mathbf{4 5}$ | 0.67998 | 1.30065 | 1.67943 | 2.01410 | 2.41212 | 2.68959 | 3.28148 |
| $\mathbf{4 6}$ | 0.67986 | 1.30023 | 1.67866 | 2.01290 | 2.41019 | 2.68701 | 3.27710 |
| $\mathbf{4 7}$ | 0.67975 | 1.29982 | 1.67793 | 2.01174 | 2.40835 | 2.68456 | 3.27291 |
| $\mathbf{4 8}$ | 0.67964 | 1.29944 | 1.67722 | 2.01063 | 2.40658 | 2.68220 | 3.26891 |
| $\mathbf{4 9}$ | 0.67953 | 1.29907 | 1.67655 | 2.00958 | 2.40489 | 2.67995 | 3.26508 |
| $\mathbf{5 0}$ | 0.67943 | 1.29871 | 1.67591 | 2.00856 | 2.40327 | 2.67779 | 3.26141 |
| $\mathbf{5 1}$ | 0.67933 | 1.29837 | 1.67528 | 2.00758 | 2.40172 | 2.67572 | 3.25789 |
| $\mathbf{5 2}$ | 0.67924 | 1.29805 | 1.67469 | 2.00665 | 2.40022 | 2.67373 | 3.25451 |
| $\mathbf{5 3}$ | 0.67915 | 1.29773 | 1.67412 | 2.00575 | 2.39879 | 2.67182 | 3.25127 |
| $\mathbf{5 4}$ | 0.67906 | 1.29743 | 1.67356 | 2.00488 | 2.39741 | 2.66998 | 3.24815 |
| $\mathbf{5 5}$ | 0.67898 | 1.29713 | 1.67303 | 2.00404 | 2.39608 | 2.66822 | 3.24515 |
| $\mathbf{5 6}$ | 0.67890 | 1.29685 | 1.67252 | 2.00324 | 2.39480 | 2.66651 | 3.24226 |
| $\mathbf{5 7}$ | 0.67882 | 1.29658 | 1.67203 | 2.00247 | 2.39357 | 2.66487 | 3.23948 |
| $\mathbf{5 8}$ | 0.67874 | 1.29632 | 1.67155 | 2.00172 | 2.39238 | 2.66329 | 3.23680 |
| $\mathbf{5 9}$ | 0.67867 | 1.29607 | 1.67109 | 2.00100 | 2.39123 | 2.66176 | 3.23421 |
| $\mathbf{6 0}$ | 0.67860 | 1.29582 | 1.67065 | 2.00030 | 2.39012 | 2.66028 | 3.23171 |

## Appendix 27

## RESEARCH DOCUMENTATION




# KEMENTERIAN AGAMA REPUBLIK INDONESIA INSTITUT AGAMA ISLAM NEGERI PADANGSIDIMPUAN FAKULTAS TARBIYAH DAN ILMU KEGURUAN <br> Jalan T. Rizal Nurdin Km. 4,5 Sihitang 22733 <br> Telephone (0634) 22080 Faximile (0634) 24022 

og November 2018
203 /In. 14/E.6a/PP.00.9/11/2018
Pengesahan Judul dan Pembimbing Skripsi
Kepada Yth:
1.Eka Sustri Harida, M. Pd
2. Zainuddin, S. S., M. Hum
(Pembimbing I)
(Pembimbing II)
di-Padangsidimpuan
Assalamu'alaikum Wr. Wb.
Dengan hormat, sehubungan dengan hasil sidang bersama tim pengkaji judul skripsi jurusan Tadris Bahasa Inggris (TBI) Fakultas Tarbiyah dan Ilmu Keguruan IAIN Padangsidimpuan. Maka dengan ini kami mohon kepada Bapak/Ibu agar dapat menjadi pembimbing skripsi dan melakukan penyempurnaan judul bilamana perlu untuk mahasiswa dibawah ini dengan data sebagai berikut:
$\left.\begin{array}{ll}\text { Nama } & \text { : Dian Sartika Simanjuntak } \\ \text { NIM } & \text { : } 1520300026 \\ \text { Fak/Jurusan } & \text { Tarbiyah dan Ilmu Keguruan/ Tadris Bahasa Inggris } \\ \text { Judul Skripsi } & \text { The Effect of Story Mapping Technique to } \\ \text { Comprehend Narrative Text at Grade VIII }\end{array}\right\}$

Demikian disampaikan, atas kesediaan dan kerjasama yang baik dari Bapak/Ibu kami ucapkan terima kasih.

Ketua Program Studi Tadris Bahasa Inggris

## Ryflub:

fRayendrian Fahmei Lubis, M. Ag.
${ }^{1}$ NIP. 197105102000032001


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CamScanter

# PEMERINTAH KOTA PADANGSIDIMPUAN 

 DINAS PENDIDIKAN SMP NEGERI 5 PADANGSIDIMPUANJI. Perintis Kemerdekaan No. 61 Padangsidimpuan Selatan Telp. (0634)22255 Kode Pos 22727

SURAT KETERANGAN<br>NOMOR : 422 / 255 / SMP. $5 / 2019$

extanda tangan dibawah ini Kepala SMP Negeri 5 Padangsidimpuan, menerangkan bahwa:

| Nama | : DIAN SARTIKA SIMANJUNTAK |
| :--- | :--- |
| NIM | $: 1520300026$ |
| Program Studi | $:$ Tadris/Pendidikan Bahasa Inggris |
| Fakultas | $:$ Tarbiyah dan Ilmu Keguruan |
| Alamat | $:$ Sibolga |

telah mengadakan penelitian (Riset) di SMP Negeri 5 Padangsidimpuan pada tanggal 04 ther 2019 sampai dengan selesai, guna untuk melengkapi penelitiannya yang berjudul : "THE ICT OF STORY MAPPING TECHNIQUE TO STUDENTS' READING PREHENSION AT GRADE VIII SMP NEGERI 5 PADANGSIDIMPUAN" sesuai dengan dari Dekan Fakultas Tarbiyah dan Ilmu Keguruan IAIN Padangsidimpuan Nomor : BIn.14/E. 1/TL.00/08/2019 tanggal 03 September 2019.
kianlah surat keterangan ini dibuat dengan sebenarnya untuk dapat dipergunakan seperlunya.


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