THE EFFECT OF USING K-W-L STRATEGY ON STUDENTS' READING COMPREHENSION AT GRADE VIII MTs YPKS PADANGSIDIMPUAN

A THESIS

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

By:

SAMRAH MARLIJA HARAHAP
Reg. No. 10 340 0103

ENGLISH EDUCATION DEPARTMENT

TARBIYAH AND TEACHER TRAINING FACULTY
STATE INSTITUTE FOR ISLAMIC STUDIES
PADANGSIDIMPUAN
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By:

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STATE INSTITUTE FOR ISLAMIC STUDIES
PADANGSIDIMPUAN
2015

Term : Munaqosyah

a.n. Samrah Marlija Harahap

Padangsidimpuan,13 February 2015

To :

Dean Tarbiyah and Teacher

Training Faculty

In-

Padangsidimpuan

Assalamu'alaikum Wr. Wb.

After reading, studying and giving advice for necessary revision on thesis belongs to SAMRAH MARLIJA HARAHAP, entitled *"The Effect of Using K-W-L Strategy on Students' Reading Comprehension at Grade VIII MTs YPKS Padangsidimpuan"*, we approved that the thesis has been acceptable to complete the requirement to fulfill for the degree of graduate of Islamic Education (S.Pd.I) in English.

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

Wassalamu'alaikum Wr. Wb.

Advisor I

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DECLARATION OF SELF THESIS COMPLETION

The name who signed here:

Name	: SAMRAH MARLIJA HARAHAP
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The Title of a Thesis	: The Effect of Using K-W-L Strategy on Students' Reading Comprehension at Grade VIII MTs YPKS Padangsidimpuan.

I hereby declare that I have arranged and written the thesis by myself, without asking for illegal help from others except the guidance from advisors, and without doing plagiarism as it is required in Students' Ethic Code of IAIN Padangsidimpuan article 14. Verse 2.

I do this declaration truthfully. If there is deceitfulness and incorrectness regarding to this declaration in the future, I will be willing to get punishment as it is required in Students' Ethic Code of IAIN Padangsidimpuan, article 19 verses 4, that is to cancel academic degree disrespectfully, and other punishment regarding norms and legal law.

Padangsidimpuan, 13 February 2015

Declaration Maker

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As academic civity of the State Institute for Islamic Studies Padangsidimpuan, the name who signed here:

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To develope science and knowledge, declare for giving to the State Institute for Islamic Studies Padangsidimpuan **Non-exclusive Royalty Right** on my thesis with the title:

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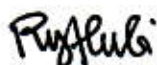Date : 13 February 2015

The Signed

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EXAMINERS

SCHOLAR MUNAQOSYAH EXAMINATION

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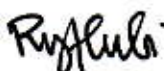
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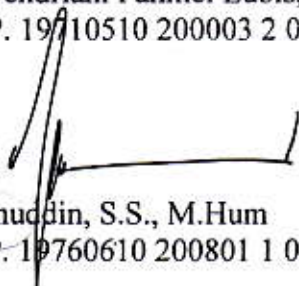
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Place   : Padangsidimpuan

Date   : February, 26th 2015

Time   : 09:00 WIB - finish

Result/Mark   : 72.50 (B)

IPK   : 3.22

Predicate   : Very Good

LEGALIZATION

Thesis : **THE EFFECT OF USING K-W-L STRATEGY ON STUDENTS'
READING COMPREHENSION AT GRADE VIII MTs YPKS
PADANGSIDIMPUAN**

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The Thesis had been accepted as a partial fulfillment of the requirement for the degree of graduate of

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Padangsidimpuan, 3b April 2015
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بسم الله الرحمن الرحيم

Firstly, the writer would like to convey her grateful to Allah SWT. The most Creator and Merciful who has given her the health, time and chance for finishing this thesis: **"The Effect of Using K-W-L Strategy on Students' Reading Comprehension at Grade VIII MTs YPKS Padangsidimpuan "**. This thesis is written in order to fulfill one of the requirements for English Education Department of State Institute for Islamic Studies (IAIN) Padangsidimpuan. Hence, this thesis paper has been undertaken.
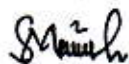
In writing this thesis, the writer was assisted by some people and institutions. Therefore, in this opportunity the writer would like to express her gratitude to the following people:

1. Thanks to Eka Sustri Harida M.Pd, and Sojuangon Rambe, S.S.,M.Pd, as advisor I and II who has guided the writer to complete this research.

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7. Thanks to Headmaster, English teacher and also students of MTs YPKS Pdangsidimpuan who helped me to completed my research.

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This thesis is still so far from being perfect based on the weakness of the research. Therefore, the researcher aspects the constructive criticisms and suggestions from the readers in order to improve this thesis.

Padangsidimpuan, 13 January 2015

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Department	:	**English Education (TBI-3)**
The Title of the Thesis	:	**The Effect of Using K-W-L Strategy on Students' Reading Comprehension at Grade VIII MTs YPKS Padangsidimpuan**

ABSTRACT

This research focused about the effect of Using K-W-L strategy on Students' Reading Comprehension at Grade VIII MTs YPKS Padangsidimpuan. The problems of this research were most of the student failed in understanding the text, it occur when the teacher gives some questions based on the text, they answer diverge to the questions, Most of the student still get low grade with average 70; meanwhile the standard of English competency in this school is 78, and the students were poor in vocabulary mastery and they lack motivation in reading comprehension. So make them lazy to read and not try to understanding the text in reading activities. The aim of this research was to find out the effect of using K-W-L strategy on students' reading comprehension at grade VIII MTs YPKS Padangsidimpuan.

This research employed experimental research. The population of this research was the eight grade of MTs YPKS Padangsidimpuan. The total of population were six classes. Then, the sample of the research was two classes, experiment class (VIII-1) and control class (VIII-2). It was taken randomly after conducting normality and homogeneity test. To collect the data, researcher used test for measuring students' Reading Comprehension. To analysis the data, the researcher used t-test.

Based on the result of the research, researcher showed the description of the data was found that the result of experimental class was higher than control class (83.75>58.25), and the score of t_{count} was bigger than t_{table} (44.73> 2.000). It means that the hypothesis alternative (H_a) was accepted. It was concluded that there was the effect of using K-W-L strategy on Students' Reading Comprehension at Grade VIII MTs YPKS Padangsidimpuan.

CURRICULUM VITAE

A. Identity

      Name   : SAMRAH MARLIJA HARAHAP

      Nim   : 10 340 0103

      Place and Birthday   : Arsesimatorkis, 27th October 1991

      Sex   : Female

      Religion   : Moslem

      Address   : Arsesimatorkis, Kec. Barumun, Padang Lawas

B. Parent

1. Father's name   : Mara Muda Harahap

2. Mother's name   : Sariana Lubis

C. Educational Background

1. Graduated from Elementary School SD Negeri Inpres lembah binubu 2003.

2. Graduated from Islamic Boarding School MTs PEMADU 2007.

3. Graduated from Islamic Boarding School MAS Al-Mukhlishin 2010.

4. Be University student in IAIN Padangsidimpuan 2010.

Appendix 1

RENCANA PELAKSANAAN PEMBELAJARAN

EXPERIMENT CLASS

Nama Sekolah	: MTs YPKS Padangsidimpuan
Mata Pelajaran	: Bahasa Iggris
Kelas/ Semester	: VIII/ Ganjil
Alokasi Waktu	: 4 x 40
Standar Kompetensi	: Memahami makna teks tulis fungsional dan essai pendek sederha berbentuk descriptive yang berkaitan dengan lingkungan sekitar
Kompetensi Dasar	: Memahami makna teks tulis fungsional pendek sederhana secara akurat, lancar, dan berterima yang berkaitan dengan lingkungan sekitar dalam teks descriptive
Jenis Teks	: Teks Descriptive
Tema	: My Pet
Aspek/Skill	: Reading

A. Indikator

1. Mengidentifikasi topik dalam teks descriptive
2. Mengidentifikasi main idea dalam teks descriptive
3. Mengidentifikasi spesifik informasi dalam teks descriptive
4. Mengidentifikasi kesimpualan dari teks descriptive
5. Memahami vocabulary dari teks descriptive
6. Mengidentifikasi skematik struktur: Identification and description

B. Tujuan Pembelajaran

1. Siswa dapat Mengidentifikasi topik dalam teks descriptive
2. Siswa dapat Mengidentifikasi main idea dalam teks descriptive
3. Siswa dapat Mengidentifikasi spesifik informasi dalam teks descriptive
4. Siswa dapat Mengidentifikasi kesimpualan dari teks descriptive
5. Siswa dapat Memahami vocabulary dari teks descriptive
6. Siswa dapat Mengidentifikasi skematik struktur: identification and description

C. Materi pembelajaran : Descriptive Text

D. Metode pembelajaran : K-W-L (know, want, learn)

E. Langkah-langkah Pembelajaran

Pertemuan Pertama

NO	KEGIATAN PEMBELAJARAN	WAKTU
1	Pendahuluan	10 Minutes
	a. Greeting/salam	
	b. Absensi	
	c. Berdo'a	
	d. Menjelaskan indikator dan memberi motifasi	
2	Kegiatan Inti	60 Minutes
	a. Guru menyajikan materi pembelajaran	
	b. Guru menanyakan kepada siswa apa yang mereka ketahui tentang cara membaca	
	c. Guru mengintruksikan kepada siswa untuk Menyiapkan kertas dan membuat tiga kolom dua baris pada kertas, kemudian menulis label K (what I know) pada kolom pertama, label W (what I want to know) pada kolom kedua, label L (what I learned) pada kolom ketiga.	
	d. Guru mengintruksikan siswa untuk berfikir apa yang mereka ketahui tentang topic kemudian menuliskan idenya di dalam kolom K (what I know).	
	e. Guru mengintruksikan siswa tentang hal-hal yang ingin mereka ketahui tentang topic kemudian menuliskan idenya dalam kolom W (what I want to know).	

f. Selanjutnya, mempelajari topic tersebut dan Siswa mendiskusikan dan menulis apa yang mereka pelajari di dalam kolom L (what I learned).

| 3 | Kegiatan Penutup: Greeting/salam | 10 Minutes |

Pertemuan Kedua

NO	KEGIATAN PEMBELAJARAN	WAKTU
1	Kegiatan Pendahuluan a. Greeting/salam b. Absensi c. Berdo'a d. Menjelaskan indikator dan memberi motifasi	10 minutes
2	Kegiatan Inti a. Siswa mengerjakan kuis individual b. Guru memberi evaluasi kuis individual siswa c. Guru memberikan penghargaan apabila skor rata-rata siswa mencapai kriteria tertentu.	60 minutes
3	Kegiatan penutup: Greeting/salam	10 minutes

F.   Sumber pembelajaran

1. Buku-buku yang relevan
2. Internet

G. Evaluasi

Indikator	Teknik	Bentuk penilaian	Instrument
1. Mengidentifikasi topik dalam teks descriptive 2. Mengidentifikasi main idea dalam teks descriptive 3. Mengidentifikasi spesifik informasi dalam teks descriptive 4. Mengidentifikasi kesimpualan dari teks descriptive 5. Memahami vocabulary dari teks descriptive 6. Mengidentifikasi skematik struktur: identification and description	Tes tertulis	Multiple choice	Choose the correct answer by crossing a, b, c or d

BAHAN AJAR

Recount Text

A. The Definition of Recount Text

Recount text is that describes the characteristics of a particular thing, a place, or a person.

B. Text Organization

1. Identification is: writing the name or something, place, pictured, city, and family with brief description.

2. Description is described parts, qualities and characteristics of thing.

C. Language feature

1. Description of a person, place, or thing contains sensory details that bring to life actual people, places, and things.

2. Observations describe an event the writer has witnessed. Often, the event takes place over an extended period.

3. Travel brochures contain information as well as persuasive language to encourage tourism.

4. Character sketches describe fictional characters-their appearances, personalities, hopes, and dreams.

5. Example of recount text

Text organization	Example
Identification	I have a pet. It is a dog and I call it Brownie. Brownie is my favorite name, because Brownie is the name of the delicious cake
Description	Brownie is a Chinese breed. It is small, fluffy, and cute. It has thick brown fur. When I cuddle it, the fur feels soft. Brownie does not like bones. Every day it eats soft food like steamed rice, fish or bread. Every morning I give her milk and bread. When I am at school, Brownie plays with my cat. They got along well, and never fight maybe because Brownie does not bark a lot. It treats the other an animals in our house.

Validator   **Reseacher**

SOJUANGON RAMBE, S.S, M.Pd.   **SAMRAH MARLIJA**
NIP. 19790815 200604 1 003   **NIM. 10 340 0103**

Appendix 2

RENCANA PELAKSANAAN PEMBELAJARAN

CONTROL CLASS

Nama Sekolah	: MTs YPKS Padangsidimpuan
Mata Pelajaran	: Bahasa Iggris
Kelas/ Semester	: VIII/ Ganjil
Alokasi Waktu	: 4 x 40
Standar Kompetensi	: Memahami makna teks tulis fungsional dan essai pendek sederha berbentuk descriptive yang berkaitan dengan lingkungan sekitar
Kompetensi Dasar	: Memahami makna teks tulis fungsional pendek sederhana secara akurat, lancar, dan berterima yang berkaitan dengan lingkungan sekitar dalam teks descriptive
Jenis Teks	: Teks descriptive
Aspek/Skill	: Reading

H. Indikator

7. Mengidentifikasi topik dalam teks descriptive
8. Mengidentifikasi main idea dalam teks descriptive
9. Mengidentifikasi spesifik informasi dalam teks descriptive
10. Mengidentifikasi kesimpualan dari teks descriptive
11. Memahami vocabulary dari teks descriptive
12. Mengidentifikasi skematik struktur: identification and descriptive

I. Tujuan Pembelajaran

7. Siswa dapat Mengidentifikasi topik dalam teks descriptive
8. Siswa dapat Mengidentifikasi main idea dalam teks descriptive
9. Siswa dapat Mengidentifikasi spesifik informasi dalam teks descriptive
10. Siswa dapat Mengidentifikasi kesimpualan dari teks descriptive
11. Siswa dapat Memahami vocabulary dari teks descriptive
12. Siswa dapat Mengidentifikasi skematik struktur: identification and descriptive

J. Materi pembelajaran : Descriptive text

K. Metode pembelajaran : Conventional Method

L. Langkah-langkah Pembelajaran

Pertemuan pertama

NO	KEGIATAN PEMBELAJARAN	WAKTU
1	Pre Activities	10 minutes
	a. Greeting/salam	
	b. Absensi	
	c. Berdo'a	
	d. Menjelaskan indikator dan memberi motifasi	
2	Main Activities	60 minutes
	a. Guru menyajikan pelajaran.	
	b. Siswa praktek untuk menemukan topik, main idea, mengidentifikasi imformasi yang dibutuhkan, memberi kesimpulan, da memahami vocabulari dari sebuah text.	
3	Post Activity	10 minutes
	a. Salah satu siswa memberi kesimpulan	
	b. Siswa lain merespon	

Pertemuan kedua

NO	KEGIATAN PEMBELAJARAN	WAKTU
1	Pre Activities	10 minutes
	e. Greeting/salam	
	f. Absensi	
	g. Berdo'a	
	h. Menjelaskan indikator dan memberi motifasi	
2	Main Activities	61 minutes
	a. Guru menyajikan pelajaran.	
	b. Siswa praktek untuk menemukan topik, main	

idea, mengidentifikasi imformasi yang dibutuhkan, memberi kesimpulan, da memahami vocabulari dari sebuah text.

| 3 | Post Activity | 10 minutes |

    c. Salah satu siswa memberi kesimpulan

    d. Siswa lain merespon

M. Sumber pembelajaran
   3. Buku-buku yang relevan
   4. Internet

N. Evaluasi

INDIKATOR	TEKNIK	BENTUK PENILAIAN	INSTRUMENT
7. Mengidentifikasi topik dalam teks descriptive 8. Mengidentifikasi main idea dalam teks descriptive 9. Mengidentifikasi spesifik informasi dalam teks descriptive 10. Mengidentifikasi kesimpualan dari teks descriptive 11. Memahami vocabulary dari teks descriptive 12. Mengidentifikasi skematik struktur: identification and description	Tes tertulis	Multiple choice	Choose the correct answer by crossing a, b, c or d

Mengetahui,

English Teacher   **Researcher**

SAMRAH MARLIJA
NIP.   **NIM. 10 340 0103**

Kepala Sekolah
MTs YPKS Padangsidimpuan

Dra. Hj. Salohot Pulungan
NIP.

Appendix 3

THE INSTRUMENTATION FOR PRE TEST

My Mother

My mother is a beautiful person. She is not tall but not short, and she has curly hair and brown. Her eyes color are like honey and her color skin color light brown, and she has a beautiful smile. She is a very kind person. She is very lovely, friendly, and patient, she loves to help people, and she loves being in the Church, and she loves sing and dance too.

She is a very good child, wife and mother. She always takes care of her family. She likes her house to be clean and organized. She a very organized person and all things in the house are in the right place. She doesn't like messes. She always has a smile on her face. She is so sweet and lovely. I like when I am going to sleep or went I wake up or when I am going to go to some places, she always give me a kiss, and when the family have a problem she always be with us to helps us and to give us all her love. I love my mom, because she is a good example to me.

Exercise
Chose the correct answer by crossing (X) A, B, C or D

1. What is the main idea of the first paragraph?
   a. My Mother is a Beautiful Person
   b. I Love My Mom
   c. She is a very lovely, friendly, patient, and loves to help people
   d. She is a Very Good Child

2. "She loves to help people"… the underlined word has similar meaning to….
   a. Like
   b. Miss
   c. Ugly
   d. Hate

3. "My mother is a beautiful person" What is the antonym the underline word?
   a. Pretty
   b. Ugly
   c. Bad
   d. Dirty

My House

I live in a small house. It has five rooms: there are bedrooms, living room, a bathroom, and a kitchen. Indeed it is a small house: but I like living in here for wasting my spare time.

When the door is open, I can see a living room. It is so small with only three chairs and a table, nothing else. I am forever reading a novel in this room.

My bedroom is in the left side of the living room. In this room there is a night table to the bed, a TV, a radio, and a computer. When being bored of reading, I usually play online games, chat with my friends via facebook and so on.

Next to my bedroom is my mother. I do not know what is inside because I never come in to see it. In the right side of the living room there is the kitchen. In the kitchen I have everything I needed when I get hungry. It very pleasure when my mother cooks. The smell fills my whole house. I know it is a very small house, but it is the best place I have ever seen.

Exercise
Chose the correct answer by crossing (X) A, B, C or D

4. The paragraph above talks about?
   a. My School
   b. My House
   c. My Bedroom
   d. My Village
5. What is the conclusion of the text?
   a. When being bored of reading, I usually play online games, chat with my friends via facebook and so on.
   b. It has five rooms: there are bedrooms, living room, a bathroom, and a kitchen.
   c. It very pleasure when my mother cooks.
   d. It is a very small house, but it is the best place I have ever seen.
6. Which of the following statement is true?
   a. I live in a big house
   b. I can see a living room
   c. I usually play a piano
   d. chat with my friends via twitter

My Friend Yuta

Yuta is one of the 150 International students at the ELC of Brigham Young University. He is from Japan. He grew up in Japan, and he is 19 years old. There are six people in his family, a father, a mother, three sisters and himself. He is the youngest in his family. He is also the only boy in his family, but now he is in Provo, Utah, studying English.

Yuta likes the United States very much and he thinks everything is cheap. Yuta thinks his English classes are excellent and the teachers are professionals. Yuta thinks someone in his class is noisy so he doesn't like that. In his free time he spends too much time sleeping, so it seems that he has a sleeping sickness.

Exercise
Chose the correct answer by crossing (X) A, B, C or D

7. What is the Topic of the Text?
   a. Brigham Young University
   b. The Youngest in Family
   c. Yuta is a Beautiful Student
   d. My friend Yuta
8. The main idea of the first paragraph is?
   a. There are six People in his Family
   b. My Friend Yuta
   c. Yuta is one of the 150 International students at the ELC of Brigham Young University.
   d. He is from Japan
9. "Yuta thinks someone in his class is <u>noisy</u>, so he doesn't like that "What is the antonym of the underline word?
   a. Silent
   b. Friendly
   c. Arrogant
   d. Strong
10. Which of the following statement is true?
    a. he is 20 years old
    b. there are ten people in his family
    c. he is the biggest in his family
    d. he is also the only boy in his family

My Sphinx Cat

My sphinx cat is the only pet I have. He has a little hair is not totally hairless as he has a peach fuzz over much of his body. His coat is often a warm chamois. My sphinx has a normal cat proportion.

I like his tail although my mom says that it is like a rat's tail. I love his usual color varieties including, tortoiseshell, chocolate, black, blue, cream of

milk, etc. my cat color is cream of milk. He is really an amazing cat. Believe it or not, he is very intelligent cat.

He can respond my voice commands. He is really funny as well as my friends get a joke. I love him so much as I love my mother.

Exercise

Chose the correct answer by crossing (X) A, B, C or D

11. What is the main idea of the first paragraph?
    a. I like his tail although my mom says that it is like a rat's tail.
    b. His coat is often a warm chamois.
    c. My sphinx cat is the only pet I have.
    d. He has a little hair
12. What is the topic of the text above?
    a. My Dog
    b. My sphinx cat
    c. My Fish
    d. My chicken
13. "He has a <u>little</u> hair" what is the similar meaning of the underline word?
    a. few
    b. Large
    c. Big
    d. Long
14. From the text above we may conclude that….
    a. My sphinx cat is the only pet I have
    b. I like his tail although my mom says that it is like a rat's tail
    c. He is really funny as well as my friends get a joke
    d. I love him so much as I love my mother
15. What is the name of the cat?
    a. Molly
    b. Poppy
    c. Charlie
    d. Sphinx
16. How many colors of the cat above?
    a. 5
    b. 3
    c. 10
    d. 8

My Family

My family has four members: those are I my sister and parents of course. My mother is 47 years old. Her name's Anisa. Shi's thin faced and she's got long, blond hair and beautiful green eyes. She is still slim because she always tries to stay in shape. She is very good looking, always well dressed and elegant.

My father Lukman is 5 years older than my mother. He is 52. In spite of his age he is still black haired, with several gray hairs. He has bright blue eyes, he is quite tall, but a bit shorter than me, and he is very hard working. Besides that he is working in a travel company. He can even make a diner when my mother is outside. His cooking and his meals are always very tasty as well as my mother.

Finally, my sister Dina. She is 22. She is also red haired and green eyed. She has long wavy hair and freckles. She is definitely shorter than me. She is rather introverted. But she is very sensible, smart and cooperative. Right now she is studying English and also now Arabic and mandarin. I want to be so smart as she is.

They all accept me, sundanese very well. Because we were live in Bandung for 5 years. My sister has been going to primary school there. Unfortunately, I was only 3 when we were living to Jakarta, so I can't speak sundanese. Now we are happily living in Jakarta.

Exercise

Chose the correct answer by crossing (X) A, B, C or D

17. What is the title of text above?
    a. My child
    b. My parent
    c. My sister
    d. My family

18. Chose the conclusion from the second paragraph above!
    a. My father cooking and his meals are always very tasty as well as my mother
    b. He is very hard working
    c. Besides that he is working in a travel company
    d. My father Lukman is 5 years older than my mother. He is 52

19. From the text above we may conclude?
    a. Now we are happily living in Jakarta.
    b. My family has four members: those are I my sister and parents of course
    c. They all accept me, sundanese very well. Because we were live in Bandung for 5 years.
    d. I was only 3 when we were living to Jakarta

20. Chose the main idea of the second paragraph?
    a. My father Lukman is 5 years older than my mother.
    b. In spite of his age he is still black haired, with several gray hairs.
    c. His cooking and his meals are always very tasty as well as my mother.

d. He has bright blue eyes, he is quite tall, but a bit shorter than me, and he is very hard working.

Appendix

THE INSTRUMENTATION FOR POST TEST

Example reading I for number 1-4

Peter is the youngest in our family. He is fourteen years old and four years younger than me. He has long, straight hair, bright eyes and a friendly smile. Sometimes he is rather naughty at home, but he usually does what he is asked to do.

Peter is interested in sports very much, and at school, he plays football and tennis. He is the best badminton player in our family.

Exercise

Chose the correct answer by crossing (X) A, B, C or D

1. How old is peter? He is …. Years old.
   a. Four
   b. Fourteen
   c. Forty
   d. Ten
2. Which of the following statement is not true about peter?
   a. He has long and straight hair
   b. He has bright eyes and not friendly smile
   c. He is interested in sports
   d. He plays football and tennis
3. From the text, we may conclude that….
   a. Many people do not like Peter
   b. People is older than then writer
   c. Peter is a welcoming person
   d. Peter is not diligent at all
4. "He has long, straight hair, bright eyes and friendly smile" the antonym of the underline word is….
   a. Short
   b. Tall
   c. Fat
   d. Slim

Example reading 2 for number 5-7

My Best Friend

I have a special friend. She is my classmate and sits beside me. Her name is Dewi. Dewi is a quite girl and very simple on the look. However, I really adore her. She is not only kind but also tough.

Dewi comes from a very simple family. Her father is a predicable driver and her mother has passed away. She has a younger brother. His name is rahmat. In order to help their father, dewi and her brother work part-time to earn some money. Dewi sells food during our class break, while her brother sells newspapers and magazines after school.

One thing that I always admire about her is that she can manage her time well, and she always looks cheerful.

Exercise
Chose the correct answer by crossing (X) A, B, C or D
5. What is the main idea of the first paragraph above?
   a. Dewi is a quite girl and very simple on the look
   b. Dewi comes from a very simple family
   c. She has a younger brother
   d. I have a special friend
6. What is the topic of the text?
   a. My best friend
   b. My sister
   c. My teacher
   d. My youngest sister
7. "….he will <u>frantically</u> pull out every unnecessary…" the underline word can be best replaced by….
   a. Happily
   b. Calmly
   c. Worriedly
   d. Diligently

Example reading 3 for number 8-10
Doraemon is one of the characters in a japans mange series created by Fujiko Fujio. Doraemon is a robotic cat. He has small body and white hands and feet. Although he can hear perfectly well, doraemon has no ears.

Doraemon possesses a large pocket that can procedure many gadgets from the future. The pocket is called yojigen-pocket, or fourth- dimensional pocket. Doraemon favorite food is dorayaki, a Japanes treat filled with red bean paste.

This robotic cat has the tendency to panic during emergencies. In an emergency situation, he will frantically pull out every unnecessary gadget from his pocket. Nevertheless, Doraemon is good cat. He always helps Nobita.

Exercise
Chose the correct answer by crossing (X) A, B, C or D
8. What does the text mainly talk about?
   a. Doraemon

b. Fujiko Fujio
c. Robbitc cat
d. Nobita

9. From the text, we may conclude that….
   a. This robotic cat has the tendency to panic during emergencies He gets panic easly
   b. Doraemon is good cat. He always helps Nobita
   c. Doraemon favorite food is dorayaki
   d. he will frantically pull out every unnecessary gadget from his pocket

10. Chose the main idea of the first paragraph…
    a. He has small body and white hands and feet
    b. Doraemon is one of the characters in a japans mange series created by Fujiko Fujio
    c. Doraemon is a robotic cat
    d. Doraemon has no ears

Example reading 4 for number 11-14

The Terrifying Headmaster

Mr. Tucker is the headmaster of my school. He does not wear glasses. His eyes always frighten me even when I refuse to face them. They are sharp, hard, and cold, and he uses them like a whip.

He always washes his hands in an enamel basin in the corner of the room. After he has washed them, he will walk over to his desk and stand behind is looking at the pupils while he dries his hands on a small, white towel. He dries each finger separately, beginning with the first finger. His fingers are long and white. He rubs them briskly without losing the effect of deliberation and as he rubs them, he looks at us with his eyes.

No one moves while he dries his hands, no one speaks. When he punishes, he will fold the towel and put it in the desk drawer. Then, he will awkwardly smile us. He really terrifies me.

Exercise

Chose the correct answer by crossing (X) A, B, C or D

11. What is the conclusion of the text?
    a. he looks at us with his eyes
    b. he will fold the towel and put it in the desk drawer
    c. he will awkwardly smile us
    d. He really terrifies me

12. Chose the topic of the text...!
    a. The Terrifying Headmaster
    b. Mr. Tucker
    c. The teacher
    d. The students

13. Where does Mr. Tucker usually wash his hand?
    a. Corner of the room
    b. In front of the room
    c. Beside of the room
    d. Behind of the room
14. The main idea of the first paragraph is?
    a. Mr. Tucker is the headmaster of my school
    b. He does not wear glasses
    c. His eyes always frighten me even when I refuse to face them
    d. He always washes his hands in an enamel basin in the corner of the room

Example reading 5 for number 15-20

My Unique Pets

I'm used to having pats at home because my family is pet lovers. I have kept two turtles since February 2003. I put them all in one tank in my room.

The name of the male turtle is Donatello and the female one is called Rafael it is quite easy to keep them. They can survive without food for about two months. However, they need a comfortable place to live. They have to live with imported soil and plants, good water circulation and a piece of dry trunk in the aquarium. Inadequate conditions can cause not only stess but also affect their growth. The worst thing is they may even end in their death!

The weapon of an adult turtle lies in its edge of the shell. He will use this weapon when he is disturbed while he is taking a nap.

Exercise

Chose the correct answer by crossing (X) A, B, C or D

15. Why is it dangerous to touch the edge of the turtle's shell when he is having his nap?
    a. Because the turtle might infect you with a certain disease
    b. Because it is the location of a turtle's weapon
    c. Because it can cause stress to the turtle
    d. Because it will kill the turtle
16. "Inadequate conditions can cause not only stress but also affect their growth." The underline word can be best replaced by….
    a. Insufficient
    b. Indiscipline
    c. Ineffective
    d. inedible
17. What is the conclusion of the text above?
    a. They can survive without food for about two months
    b. The worst thing is they may even end in their death
    c. The weapon of an adult turtle lies in its edge of the shell
    d. He will use this weapon when he is disturbed while he is taking a nap

18. The topic of text above is?
    a. My Unique Pets
    b. Male turtle
    c. Donatello
    d. female one is called Rafael
19. The main idea of the first paragraph is?
    a. I'm used to having pats at home because my family is pet lovers
    b. I put them all in one tank in my room
    c. The name of the male turtle is Donatello and the female one is called Rafael it is quite easy to keep them
    d. They can survive without food for about two months
20. "Rafael it is quite <u>easy</u> to keep them…" the underlined word has similar meaning to….
    a. Awkward
    b. Uneasy
    c. Comfortable
    d. Difficult
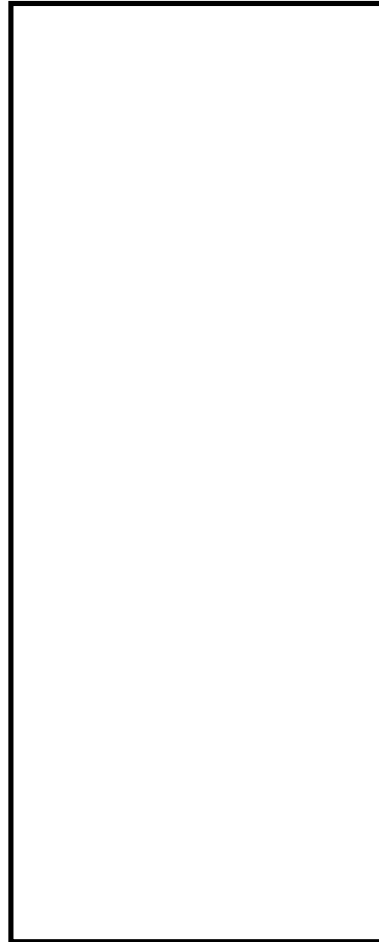
Appendix 5

Key Answer

A. Pre-Test

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

B. Post-Test

Appendix 6

Validity Pre Test

NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	Xt	Xt²
1	1	0	0	0	0	0	0	1	0	1	1	1	1	1	1	1	1	1	0	1	1	1	0	0	1	15	225
2	1	1	0	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	1	20	400
3	1	1	0	1	0	1	1	0	1	0	1	1	1	1	0	0	0	0	1	1	1	1	1	0	1	16	256
4	1	0	0	0	0	0	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	5	25
5	1	0	1	0	1	0	1	1	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	10	100
6	1	1	0	1	0	1	1	1	1	0	0	1	0	1	0	0	1	0	1	1	1	1	0	0	0	14	196
7	1	1	0	0	1	1	1	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1	0	0	0	18	324
8	0	1	0	0	1	0	0	1	0	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	6	36
9	1	1	0	0	1	1	1	0	0	1	1	1	0	1	1	0	1	0	1	1	1	1	0	0	0	15	225
10	1	1	0	0	1	1	1	1	0	1	1	0	1	1	1	1	1	0	1	1	1	1	1	0	1	19	361
11	1	1	0	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	21	441
12	1	1	0	1	1	1	1	1	0	0	1	1	1	0	1	1	0	0	1	1	1	1	1	0	0	17	289
13	0	1	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	4	16
14	1	1	0	0	0	1	1	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	20	400
15	0	0	1	0	0	1	1	1	0	1	1	1	1	0	1	1	0	1	1	1	1	1	0	0	1	16	256
16	1	1	1	1	0	0	0	0	0	1	1	1	1	1	1	1	1	0	1	0	1	1	1	1	1	18	324
17	0	1	0	0	1	1	0	0	1	0	1	1	0	1	1	0	0	0	0	1	1	1	1	0	0	12	144
18	0	1	0	0	1	0	0	1	0	1	0	1	1	0	1	1	0	0	0	0	1	1	1	0	1	12	144

Appendix 7

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

A. Calculation of Pre-Test

1. Means score from score total (M_t)

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

$$M_t = \frac{360}{25} = 14.40$$

2. Standard Deviation (SD_t)

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

$$SD_t = \sqrt{\frac{5664}{25} - \left(\frac{360}{25}\right)^2}$$

$$SD_t = \sqrt{226.56 - 14.40^2}$$

$$SD_t = \sqrt{226.56 - 207.36} = \sqrt{19.2} = 4.38$$

3. Means Score (M_p)

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

$$M_{p1} = \frac{15+20+16+5+10+14+18+15+19+21+17+20+18+15+17+15+15}{17}$$

$$M_{p1} = \frac{270}{17} = 15.88$$

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

$$M_{p2} = \frac{20+16+14+18+16+15+19+21+17+14+20+18+12+12+12+17+15+15+15}{19}$$

$$M_{p2} = \frac{286}{19} = 15.50$$

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

$$M_{p3} = \frac{19+16+18+15}{4}$$

$$M_{p3} = \frac{59}{4} = 14.75$$

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

$$M_{p4} = \frac{16+14+17+18+15}{5}$$

$$M_{p4} = \frac{80}{5} = 16'00$$

Item 5 $M_{p5} = \dfrac{\text{the total of students score that answer true item}}{n5}$

$M_{p5} = \dfrac{20+10+18+6+15+19+21+17+12+12+12+15}{12}$

$= \dfrac{177}{12} = 14.75$

Item 6 $M_{p6} = \dfrac{\text{the total of students score that answer true item}}{n6}$

$M_{p6} = \dfrac{20+16+14+18+15+19+21+17+20+16+12+17+15+13}{14}$

$= \dfrac{233}{14} = 16.64$

Item 7 $M_{p7} = \dfrac{\text{the total of students score that answer true item}}{n7}$

$M_{p7} = \dfrac{20+16+10+14+18+15+19+21+17+20+16+17+15}{13} =$

$\dfrac{218}{13} = 16.76$

Item 8 $M_{p8} = \dfrac{\text{the total of students score that answer true item}}{n8}$

$M_{p8} = \dfrac{\begin{array}{c}15+20+5+10+14+18+6+19+21+17+4+20+16+12\\+12+15+15+13\end{array}}{18}$

$M_{p8} = \dfrac{252}{18} = 14.00$

Item 9 $= \dfrac{\text{the total of students score that answer true item}}{n9}$

$M_{p9} = \dfrac{16+10+14+12+15+17+15}{7}$

$M_{p9} = \dfrac{99}{7} = 14.14$

Item 10 $M_{p10} = \dfrac{\text{the total of students score that answer true item}}{n10}$

$M_{p10} = \dfrac{15+20+5+10+18+6+15+19+21+20+16+18+12+12+15+17+15+15}{18}$

$M_{p10} = \dfrac{279}{18} = 15.50$

Item 11 $M_{p11} = \dfrac{\text{the total of students score that answer true item}}{n11}$

$M_{p11} = \dfrac{15+20+16+10+18+15+19+21+17+20+16+18+12+17+15+15+13}{17}$

$$M_{p11} = \frac{277}{17} = 16.29$$

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

$$M_{p12} = \frac{\substack{15+20+16+5+14+15+21+17+20+16+18+12+12+17+15 \\ +15+15+13}}{18}$$

$$M_{p12} = \frac{286}{18} = 15.88$$

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

$$M_{p13} = \frac{\substack{15+20+16+18+19+21+17+16+18+12+12+15+17 \\ +15+15+15+13}}{17}$$

$$M_{p13} = \frac{274}{17} = 16.11$$

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

$$M_{p14} = \frac{15+20+16+5+10+14+18+6+15+19+21+4+20+16+18+12+12+15+15+13}{19}$$

$$M_{p14} = \frac{284}{19} = 14.94$$

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

$$M_{p15} = \frac{\substack{15+20+18+15+19+21+17+20+16+18+12+12 \\ +15+17+15+15+13}}{17}$$

$$M_{p15} = \frac{278}{17} = 16.35$$

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

$$M_{p16} = \frac{15+20+18+19+21+17+20+16+18+12+12+15+15+15+13}{15}$$

$$M_{p16} = \frac{246}{15} = 16.40$$

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

$$M_{p17} = \frac{15+20+14+18+15+19+21+20+18+12+15+17+15+15}{14}$$

$$M_{p17} = \frac{234}{14} = 16.71$$

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

$M_{p18} = \dfrac{15+20+18+21+20+16+12+15+17+15+13}{11}$

$M_{p18} = \dfrac{182}{11} = 16.54$

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

$M_{p19} = \dfrac{16+14+18+6+15+19+21+17+4+20+16+18+15+17+15+15+15+13}{18}$

$M_{p19} = \dfrac{284}{18} = 15.77$

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

$M_{p20} = \dfrac{\substack{15+20+16+14+18+15+19+21+17+20+16+12+15+17 \\ +15+15+15+13}}{18}$

$M_{p20} = \dfrac{293}{18} = 16.27$

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

$M_{p21} = \dfrac{\substack{15+20+16+14+18+15+19+21+17+20+16+18+12+12+12+15 \\ +17+15+15+13}}{20}$

$M_{p21} = \dfrac{320}{20} = 16.00$

Item 22 $M_{p22} = \dfrac{\text{the total of students score that answer true item}}{n22}$

$M_{p22} = \dfrac{\substack{15+20+16+14+18+15+19+21+17+20+16+18+12+12+12+15 \\ +17+15+15+15}}{20}$

$M_{p22} = \dfrac{322}{20} = 16.10$

Item 23 $M_{p23} = \dfrac{\text{the total of students score that answer true item}}{n16}$

$M_{p23} = \dfrac{20+16+19+21+17+20+18+12+12+15+13}{11}$

$M_{p23} = \dfrac{183}{11} = 16.63$

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

$M_{p24} = \dfrac{5+21+2018+15}{4}$

$M_{p24} = \dfrac{79}{4} = 19.75$

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

$M_{p25} = \dfrac{15+20+16+10+19+21+20+16+18+12+12+15+17+15+\_15}{15}$

$M_{p25} = \dfrac{241}{15} = 16.06$

4. Calculation of the Formulation $r_{pbi=\frac{M_p-M_t}{SD_t}\sqrt{\frac{p}{q}}}$

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

$r_{pbi} = \dfrac{15.88-14.40}{4.38}\sqrt{\dfrac{0.6}{0.4}}$

$r = \dfrac{1.48}{4.38}\sqrt{1.5}$

$r = 0.337 \text{ x } 1.22 = 0.411$

Item 2 $r_{pbi} = \dfrac{15.50-14.40}{4.38}\sqrt{\dfrac{0.7}{0.3}}$

$r = \dfrac{1.1}{4.38}\sqrt{2.33}$

$r = 0.251 \text{ x } 1.52 = 0.382$

Item 3 $r_{pbi} = \dfrac{14.75-14.40}{4.38}\sqrt{\dfrac{0.1}{0.9}}$

$r = \dfrac{0.35}{4.38}\sqrt{0.11}$

$r = 0.079 \text{ x } 0.33 = 0.260$

Item 4 $r_{pbi} = \dfrac{16.00-14.40}{4.38}\sqrt{\dfrac{0.2}{0.8}}$

$r = \dfrac{0.6}{4.38}\sqrt{0.25}$

$r = 0.365 \text{ x } 0.5 = 0.182$

Item 5 $r_{pbi} = \dfrac{14.75.11 - 14.40}{4.38} \sqrt{\dfrac{0.6}{0.4}}$

$r = \dfrac{0.35}{4.38} \sqrt{0.42}$

$r = 0.079 \times 0.812 = 0.064$

Item 6 $r_{pbi} = \dfrac{16.64 - 14.40}{4.38} \sqrt{\dfrac{0.5}{0.5}}$

$r = \dfrac{2.24}{4.38} \sqrt{1}$

$r = 0.511 \times 1 = 0.511$

Item 7 $r_{pbi} = \dfrac{16.76 - 14.40}{4.38} \sqrt{\dfrac{0.5}{0.5}}$

$r = \dfrac{2.36}{4.38} \sqrt{1}$

$r = 0.538 \times 1 = 0.538$

Item 8 $r_{pbi} = \dfrac{1400 - 14.40}{4.38} \sqrt{\dfrac{0.7}{0.3}}$

$r = \dfrac{-0.4}{4.38} \sqrt{2.33}$

$r = -0.091 \times 1.52 = 0.138$

Item 9 $r_{pbi} = \dfrac{13.14 - 14.40}{4.38} \sqrt{\dfrac{0.2}{0.8}}$

$r = \dfrac{-0.26}{4.38} \sqrt{0.25}$

$r = -0.059 \times 0.5 = -0.029$

Item 10 $r_{pbi} = \dfrac{15.50 - 14.40}{4.38} \sqrt{\dfrac{0.7}{0.3}}$

$r = \dfrac{1.1}{4.38} \sqrt{2.33}$

$$r = 0.251 \text{ x } 1.52 = 0.382$$

Item 11 $r_{\text{pbi}} = \dfrac{16.29 - 14.40}{4.38} \sqrt{\dfrac{0.6}{0.4}}$

$$r = \dfrac{1.89}{4.38} \sqrt{1.5}$$

$$r = 0.431 \text{ x } 1.22 = 0.525$$

Item 12 $r_{\text{pbi}} = \dfrac{15.88 - 14.40}{4.38} \sqrt{\dfrac{0.7}{0.3}}$

$$r = \dfrac{1.48}{4.38} \sqrt{2.33}$$

$$r = 0.337 \text{ x } 1.52 = 0.512$$

Item 13 $r_{\text{pbi}} = \dfrac{16.11 - 14.40}{4.38} \sqrt{\dfrac{0.6}{0.4}}$

$$r = \dfrac{0.71}{4.38} \sqrt{1.5}$$

$$r = 0.390 \text{ x } 1.22 = 0.475$$

Item 14 $r_{\text{pbi}} = \dfrac{14.94 - 14.40}{4.38} \sqrt{\dfrac{0.7}{0.3}}$

$$r = \dfrac{1.54}{4.38} \sqrt{2.33}$$

$$r = 1.421 \text{ x } 1.52 = 0.639$$

Item 15 $r_{\text{pbi}} = \dfrac{16.35 - 14.40}{4.38} \sqrt{\dfrac{0.6}{0.4}}$

$$r = \dfrac{1.95}{4.38} \sqrt{1.5}$$

$$r = 0.445 \text{ x } 1.22 = 0.542$$

Item 16 $r_{pbi} = \dfrac{16.40-14.40}{4.38} \sqrt{\dfrac{0.6}{0.4}}$

$r = \dfrac{2}{4.38} \sqrt{1.5}$

$r = 0.456 \text{x } 1.22 = 0.556$

Item 17 $r_{pbi} = \dfrac{16.71-14.40}{4.38} \sqrt{\dfrac{0.5}{0.5}}$

$r = \dfrac{2.31}{4.38} \sqrt{1}$

$r = 0.527 \text{ x } 1 = 0.527$

Item 18 $r_{pbi} = \dfrac{16.54-14.40}{4.38} \sqrt{\dfrac{0.5}{0.5}}$

$r = \dfrac{2.14}{4.38} \sqrt{1}$

$r = 0.488 \text{ x } 1 = 0.488$

Item 19 $r_{pbi} = \dfrac{15.77-14.40}{4.38} \sqrt{\dfrac{0.7}{0.3}}$

$r = \dfrac{1.37}{4.38} \sqrt{2.33}$

$r = 0.312 \text{ x } 1.52 = 0.474$

Item 20 $r_{pbi} = \dfrac{16.27-14.40}{4.38} \sqrt{\dfrac{0.7}{0.3}}$

$r = \dfrac{1.87}{4.38} \sqrt{2.33}$

$r = 0.426 \text{x } 1.52 = 0.647$

Item 21 $r_{pbi} = \dfrac{16.00-14.40}{4.38} \sqrt{\dfrac{0.8}{0.2}}$

$r = \dfrac{1.6}{4.38} \sqrt{4}$

r = 0.365 x 2 = 0.730

Item 22 $r_{pbi} = \frac{16.10 - 14.40}{4.38} \sqrt{\frac{0.8}{0.2}}$

$r = \frac{1.7}{4.38} \sqrt{4}$

r = 0.388 x 2 = 0.776

Item 23 $r_{pbi} = \frac{16.63 - 14.40}{4.38} \sqrt{\frac{0.4}{0.6}}$

$r = \frac{2.23}{4.38} \sqrt{0.66}$

r = 0.509 x 0812 = 0.413

Item 24 $r_{pbi} = \frac{19.75 - 14.40}{4.38} \sqrt{\frac{0.1}{0.9}}$

$r = \frac{1.4}{4.38} \sqrt{0.11}$

r = 0.221 x 0.33 = 0.402

Item 25 $r_{pbi} = \frac{16.06 - 14.40}{4.38} \sqrt{\frac{0.6}{0.4}}$

$r = \frac{1.66}{4.38} \sqrt{1.5}$

r = 0.378 x 1.22 = 0.461

Appendix 10

$$\textbf{Calculation of } r_{pbi} = \frac{M_p - M_t}{SD_t} \sqrt{\frac{p}{q}} \textbf{ in post-test}$$

B. Calculation of Post-Test

1. Means Score from Score Total (M_t)

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

$$M_t = \frac{408}{25} = 16.32$$

2. Standard Deviation (SD_t)

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

$$SD_t = \sqrt{\frac{7294}{25} - \left(\frac{408}{25}\right)^2}$$

$$SD_t = \sqrt{291.76 - 16.32^2}$$

$$SD_t = \sqrt{291.76 - 266.34} = \sqrt{28.3} = 5.04$$

3. Means Score (M_p)

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

$$M_{p1} = \frac{\begin{array}{c}15+19+15+17+17+16+20+14+21+17+16+17+20+16\\+22+17+16+22+15+16\end{array}}{20}$$

$$M_{p1} = \frac{348}{20} = 17.40$$

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

$$M_{p2} = \frac{\begin{array}{c}19+15+17+24+6+16+20+14+21+17+16+17+22\\+20+16+16+22+15+16\end{array}}{19}$$

$$M_{p2} = \frac{329}{19} = 17.31$$

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

$$M_{p3} = \frac{\begin{array}{c}15+19+15+17+24+17+16+20+14+17+16+17+22+20+16+22\\+17+16+22+15+16\end{array}}{21}$$

$$M_{p3} = \frac{373}{21} = 17.76$$

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

$$M_{p4} = \frac{\begin{array}{c}15+19+17+24+17+16+20+14+17+17+22+20+16+22\\+17+16+22+15+16\end{array}}{19}$$

$$M_{p4} = \frac{337}{19} = 17.73$$

Item 5 $M_{p5} = \dfrac{\text{the total of students score that answer true item}}{n5}$

$$M_{p5} = \frac{15+24+4+21+22+20+4+22+16+22}{10}$$

$$M_{p5} = \frac{170}{10} = 17.00$$

Item 6 $M_{p6} = \dfrac{\text{the total of students score that answer true item}}{n6}$

$$M_{p6} = \frac{\begin{array}{c}15+24+17+6+4+21+17+16+22+20+16+22\\+17+16+22\end{array}}{15} = \frac{255}{15} = 17.00$$

Item 7 $M_{p7} = \dfrac{\text{the total of students score that answer true item}}{n7}$

$$M_{p7} = \frac{19+24+6+16+20+14+21+17+22+22+16+22+15}{13} = \frac{244}{13} = 18.00$$

Item 8 $M_{p8} = \dfrac{\text{the total of students score that answer true item}}{n8}$

$$M_{p8} = \frac{\begin{array}{c}15+19+15+17+24+17+16+20+14+21+17+16+17+22+20+\\16+22+17+16+22+15+16\end{array}}{22}$$

$$M_{p8} = \frac{394}{22} = 17.\,90$$

Item 9 $= \dfrac{\text{the total of students score that answer true item}}{n9}$

$$M_{p9} = \frac{24+6+20+4+16+22+16+4+16+22}{10}$$

$$M_{p9} = \frac{150}{10} = 15.00$$

Item 10 $M_{p10} = \dfrac{\text{the total of students score that answer true item}}{n10}$

$$M_{p10} = \frac{15+19+17+24+17+20+4+17+16+17+22+20+16+22+17+16+22+15}{18}$$

$$M_{p10} = \frac{326}{18} = 17.55$$

Item 11 $M_{p11} = \dfrac{\text{the total of students score that answer true item}}{n11}$

$$M_{p11} = \frac{\begin{array}{c}15+19+15+17+24+17+6+16+20+14+21+17+17+22+\\20+16+22+17+16+22+15+16\end{array}}{22}$$

$$M_{p11} = \frac{384}{22} = 17.45$$

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

$$M_{p12} = \frac{\begin{array}{c}15+19+15+17+24+17+16+20+14+21+17+17\\+22+20+16+22+17+15+16\end{array}}{19}$$

$$M_{p12} = \frac{340}{19} = 17.89$$

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

$$M_{p13} = \frac{\substack{15+19+15+17+24+17+16+20+14+21+17+16+17+22+20 \\ +16+22+17+16+22+15+16}}{22}$$

$$M_{p13} = \frac{394}{22} = 17.90$$

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

$$M_{p9} = \frac{15+19+15+24+17+16+14+21+16+4+22+17+22+15}{14} = \frac{237}{14} = 16.92$$

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

$$M_{p15} = \frac{\substack{15+19+17+24+17+20+14+21+17+16+17+22 \\ +22+17+22+15+16}}{17}$$

$$M_{p15} = \frac{311}{17} = 18.29$$

Item 16 $M_{p16} = \dfrac{\text{the total of students score that answer true item}}{n16}$

$$Mp_{16} = \frac{19+15+17+24+17+16+20+21+17+16+17+22+20+16+22+17+16+22+16}{19}$$

$$M_{p16} = \frac{350}{19} = 18.42$$

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

$$M_{p17} = \frac{17+19+15+17+24+17+16+20+21+17+16+17+22+20+16+22+17+22+16}{19}$$

$$M_{p17} = \frac{349}{19} = 18.36$$

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

$$M_{p18} = \frac{15+24+16+4+21+22+22+16}{8}$$

$$M_{p18} = \frac{140}{8} = 17.50$$

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

$$M_{p19} = \frac{\substack{19+17+24+17+20+14+21+16+17+22+20+16+22+17+16+22 \\ 15+16}}{18}$$

$$M_{p19} = \frac{331}{18} = 18.38$$

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

$$M_{p20} = \frac{15+19+17+24+17+16+20+21+16+22+20+22+17+16}{14}$$

$$M_{p20} = \frac{262}{14} = 18.71$$

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

$$M_{p21} = \frac{15+24+16+21+17+22+20+22}{8}$$

$$M_{p21} = \frac{157}{8} = 19.62$$

Item 22 $M_{p22} = \dfrac{\text{the total of students score that answer true item}}{n22}$

$$M_{p22} = \frac{15+15+24+6+20+14+21+17+16+17+22+20+22+22+15}{15}$$

$$M_{p22} = \frac{276}{15} = 18.40$$

Item 23 $M_{p23} = \dfrac{\text{the total of students score that answer true item}}{n23}$

$$M_{p23} = \frac{19+15+17+24+17+16+20+21+17+16+17+22+20+16+22+17+16+22+16}{19}$$

$$M_{p23} = \frac{350}{18} = 18.42$$

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

$$M_{p24} = \frac{19+17+24+17+20+14+21+17+22+20+4+22+17+16+22+15+16}{17}$$

$$M_{p24} = \frac{303}{17} = 17.82$$

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

$$M_{p25} = \frac{19+15+17+24+20+17+16+22+20+22+22}{11}$$

$$M_{p25} = \frac{214}{11} = 19.45$$

4. **Calculation of the Formulation** $r_{pbi} = \frac{M_p - M_t}{SD_t} \sqrt{\frac{p}{q}}$

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

$$r_{pbi} = \frac{17.40 - 16.32}{5.04} \sqrt{\frac{0.8}{0.2}}$$

$$r = \frac{1.08}{5.04} \sqrt{4}$$

r = 0.214 x 2 = 0.428

Item 2 $r_{pbi} = \frac{17.31 - 16.32}{5.04} \sqrt{\frac{0.8}{0.2}}$

$$r_{pbi} = \frac{0.99}{5.04} \sqrt{4}$$

r = 0.196 x 2 = 0.392

Item 3 $r_{pbi} = = \frac{17.76 - 16.32}{5.04} \sqrt{\frac{0.8}{0.2}}$

$$r_{pbi} = \frac{1.44}{5.04} \sqrt{4}$$

r = 0.285 x 2 = 0.570

Item 4 $r_{pbi} = = \frac{17.73 - 16.32}{5.04} \sqrt{\frac{0.8}{0.2}}$

$$r_{pbi} = \frac{1.41}{5.04} \sqrt{4}$$

r = 0.297 x 2 = 0.558

Item 5 $r_{pbi} = = \frac{17.00 - 16.32}{5.04} \sqrt{\frac{0.4}{0.6}}$

$$r_{pbi} = \frac{0.68}{5.04} \sqrt{0.66}$$

r = 0.134x 0.182 = 0.108

Item 6 $r_{pbi} = = \frac{17.00-16.32}{5.04}\sqrt{\frac{0.6}{0.4}}$

$r_{pbi} = \frac{0.68}{5.04}\sqrt{1.5}$

r = 0.134 x 1.22 = 0.163

Item 7 $r_{pbi} = = \frac{18.76-16.32}{5.04}\sqrt{\frac{0.5}{0.5}}$

$r_{pbi} = \frac{2.44}{5.04}\sqrt{1}$

r = 0.484 x 1 = 0.484

Item 8 $r_{pbi} = = \frac{17.90-16.32}{5.04}\sqrt{\frac{0.9}{0.1}}$

$r_{pbi} = \frac{1.58}{5.04}\sqrt{9}$

r = 0.313 x 3 = 0.939

Item 9 $r_{pbi} = = \frac{1500-16.32}{5.04}\sqrt{\frac{0.4}{0.6}}$

$r_{pbi} = \frac{-1.32}{5.04}\sqrt{0.66}$

r = 0.261 x 0.812 = -0.211

Item 10 $r_{pbi} = = \frac{18.11-16.32}{5.04}\sqrt{\frac{0.7}{0.3}}$

$r_{pbi} = \frac{1.79}{5.04}\sqrt{2.33}$

r = 0.355x 1.52= 0.539

Item 11 $r_{pbi} = = \frac{17.45-16.32}{5.04}\sqrt{\frac{0.9}{0.1}}$

$r_{pbi} = \frac{1.13}{5.04}\sqrt{9}$

$r = 0.224 \times 3 = 0.672$

Item 12 $r_{pbi} = = \dfrac{17.89 - 16.32}{5.04} \sqrt{\dfrac{0.8}{0.2}}$

$r_{pbi} = \dfrac{1.57}{5.04} \sqrt{4}$

$r = 0.311 \times 1.22 = 0.622$

Item 13 $r_{pbi} = = \dfrac{17.90 - 16.32}{5.04} \sqrt{\dfrac{0.9}{01}}$

$r_{pbi} = \dfrac{1.58}{5.04} \sqrt{9}$

$r = 0.313 \times 3 = 0.939$

Item 14 $r_{pbi} = = \dfrac{16.92 - 16.32}{5.04} \sqrt{\dfrac{0.6}{0.4}}$

$r_{pbi} = \dfrac{0.6}{5.04} \sqrt{1.5}$

$r = 0.119 \times 1.22 = 0.145$

tem 15 $r_{pbi} = = \dfrac{18.29 - 16.32}{5.04} \sqrt{\dfrac{0.7}{0.3}}$

$r_{pbi} = \dfrac{1.97}{5.04} \sqrt{2.33}$

$r = 0.390 \times 1.52 = 0.592$

Item 16 $r_{pbi} = = \dfrac{18.42 - 16.32}{5.04} \sqrt{\dfrac{0.8}{0.2}}$

$r_{pbi} = \dfrac{2.1}{5.04} \sqrt{4}$

$r = 0.416 \times 2 = 0.832$

Item 17 $r_{pbi} = = \dfrac{18.36-16.32}{5.04} \sqrt{\dfrac{0.8}{0.2}}$

$r_{pbi} = \dfrac{2.04}{5.04} \sqrt{4}$

r = 0.404 x 2 = 0.808

Item 18 $r_{pbi} = = \dfrac{17.50-16.32}{5.04} \sqrt{\dfrac{0.4}{0.6}}$

$r_{pbi} = \dfrac{1.18}{5.04} \sqrt{0.42}$

r = 0.234 x 0.64 = 0.149

Item 19 $r_{pbi} = = \dfrac{18.38-16.32}{5.04} \sqrt{\dfrac{0.7}{0.3}}$

$r_{pbi} = \dfrac{2.06}{5.04} \sqrt{2.33}$

r = 0.408 x 1.52 = 0.620

Item 20 $r_{pbi} = = \dfrac{18.71-16.32}{5.04} \sqrt{\dfrac{0.6}{0.4}}$

$r_{pbi} = \dfrac{2.39}{5.04} \sqrt{1.5}$

r = 0.474x 1.5 = 0.720

Item 21 $r_{pbi} = = \dfrac{19.62-16.32}{5.04} \sqrt{\dfrac{0.3}{0.7}}$

$r_{pbi} = \dfrac{3.3}{5.04} \sqrt{0.42}$

r = 0.654 x 0.64 = 0.418

Item 22 $r_{pbi} = = \dfrac{18.40-16.32}{5.04} \sqrt{\dfrac{0.6}{0.4}}$

$r_{pbi} = \dfrac{1.41}{5.04} \sqrt{1.5}$

r = 0.279 x 1.22 = 0.502

Item 23 $r_{pbi} = = \dfrac{18.42 - 16.32}{5.04} \sqrt{\dfrac{0.8}{0.2}}$

$r_{pbi} = \dfrac{2.1}{5.04} \sqrt{4}$

r = 0.416 x 2 = 0.832

Item 24 $r_{pbi} = \dfrac{17.82 - 16.32}{5.04} \sqrt{\dfrac{0.7}{0.3}}$

$r_{pbi} = \dfrac{1.5}{5.04} \sqrt{2.33}$

r = 0.297 x 1.51 = 0.448

Item 25 $r_{pbi} = = \dfrac{19.45 - 16.32}{5.04} \sqrt{\dfrac{0.4}{0.6}}$

$r_{pbi} = \dfrac{3.13}{5.04} \sqrt{0.66}$

r = 0.621 x 0.812 = 0.504

Appendix 8

Table Validity of Pre- Test

Number of Item	M_p	M_t	SD_t	P	Q	$r_{pbi} = \frac{M_p - M_t}{SD_t}\sqrt{\frac{p}{q}}$	r_t on 5% significant	Interpretation
1.	15.88	14.40	4.38	0.6	0.4	0.411	0.381	Valid
2.	15.50	14.40	4.38	0.7	0.3	0.382	0.381	Valid
3.	14.75	14.40	4.38	0.1	0.9	0.260	0.381	Invalid
4.	16.00	14.40	4.38	0.2	0.8	0.182	0.381	Invalid
5.	14.75	14.40	4.38	0.4	0.6	0.064	0.381	Invalid
6.	16.64	14.40	4.38	0.5	0.5	0.511	0.381	Valid
7.	16.76	14.40	4.38	0.5	0.5	0.538	0.381	Valid
8.	14.00	14.40	4.38	0.7	0.3	0.138	0.381	Invalid
9.	14.14	14.40	4.38	0.2	0.8	-0.029	0.381	Invalid
10.	15.50	14.40	4.38	0.7	0.3	0.382	0.381	Valid
11.	16.29	14.40	4.38	0.6	0.4	0.525	0.381	Valid
12.	15.88	14.40	4.38	0.7	0.3	0.512	0.381	Valid
13.	16.11	14.40	4.38	0.6	0.4	0.475	0.381	Valid
14.	14,94	14.40	4.38	0.7	0.3	0.639	0.381	Valid
15.	16.35	14.40	4.38	0.6	0.4	0.542	0.381	Valid
16.	16.40	14.40	4.38	0.6	0.4	0.556	0.381	Valid
17.	16.71	14.40	4.38	0.5	0.5	0.527	0.381	Valid
18.	16.54	14.40	4.38	0.5	0.5	0.448	0.381	Valid
19.	15.77	14.40	4.38	0.7	0.3	0.474	0.381	Valid
20.	16.27	14.40	4.38	0.7	0.3	0.647	0.381	Valid
21.	16.00	14.40	4.38	0.8	0.2	0.730	0.381	Valid
22.	16.10	14.40	4.38	0.8	0.2	0776	0.381	Valid
23.	16.63	14.40	4.38	0.4	0.6	0.413	0.381	Valid
24.	19.75	14.40	4.38	0.1	0.9	0.402	0.381	Valid
25.	16.06	14.40	4.38	0.6	0.4	0.461	0.381	Valid

Appendix 9

Validity Post Test

NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	Xt	Xt²
1	1	0	1	1	1	1	0	1	0	1	1	1	1	1	1	0	1	0	0	1	0	1	0	0	0	15	225
2	1	1	1	1	0	0	1	1	0	1	1	1	1	1	1	1	1	0	1	1	0	0	1	1	1	19	361
3	1	1	1	0	0	0	0	1	0	0	1	1	1	1	0	1	1	1	0	0	1	1	1	0	1	15	225
4	1	1	1	1	0	0	0	1	0	1	1	1	1	0	1	1	1	0	1	1	0	0	1	1	1	17	289
5	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	24	576
6	1	0	1	1	0	1	0	1	0	1	1	1	1	1	1	1	1	0	1	1	0	0	1	1	0	17	289
7	0	1	0	0	0	1	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	6	36
8	1	1	1	1	0	0	1	1	0	0	1	1	1	1	0	1	1	1	0	1	1	0	1	0	0	16	256
9	1	1	1	1	0	0	1	1	1	1	1	1	1	0	1	1	1	0	1	1	0	1	1	1	1	20	400
10	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	0	0	0	1	0	0	1	0	1	0	14	196
11	0	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	4	16
12	1	1	0	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	21	441
13	1	1	1	1	0	1	1	1	0	1	1	1	1	0	1	1	1	0	0	0	0	1	1	0	1	17	289
14	1	1	1	0	0	1	0	1	1	1	0	0	1	0	1	1	1	0	1	1	0	1	1	0	1	16	256
15	1	1	1	1	0	0	0	1	0	1	1	1	1	0	1	1	1	0	1	0	1	1	1	1	0	17	289
16	0	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1	1	1	1	1	22	484
17	1	1	1	1	1	1	0	1	0	1	1	1	1	0	0	1	1	0	1	1	1	1	1	1	1	20	400

Appendix 10

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

C. **Calculation of Post-Test**

   5. **Means Score from Score Total (M_t)**

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

$$M_t = \frac{408}{25} = 16.32$$

   6. **Standard Deviation (SD_t)**

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

$$SD_t = \sqrt{\frac{7294}{25} - \left(\frac{408}{25}\right)^2}$$

$$SD_t = \sqrt{291.76 - 16.32^2}$$

$$SD_t = \sqrt{291.76 - 266.34} = \sqrt{28.3} = 5.04$$

   7. **Means Score (M_p)**

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

$$M_{p1} = \frac{\substack{15+19+15+17+17+16+20+14+21+17+16+17+20+16\\+22+17+16+22+15+16}}{20}$$

$$M_{p1} = \frac{348}{20} = 17.40$$

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

$$M_{p2} = \frac{\substack{19+15+17+24+6+16+20+14+21+17+16+17+22\\+20+16+16+22+15+16}}{19}$$

$$M_{p2} = \frac{329}{19} = 17.31$$

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

$$M_{p3} = \frac{\substack{15+19+15+17+24+17+16+20+14+17+16+17+22+20+16+22\\+17+16+22+15+16}}{21}$$

$$M_{p3} = \frac{373}{21} = 17.76$$

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

$$M_{p4} = \frac{\substack{15+19+17+24+17+16+20+14+17+17+22+20+16+22\\+17+16+22+15+16}}{19}$$

$$M_{p4} = \frac{337}{19} = 17.73$$

Item 5 $M_{p5} = \dfrac{\text{the total of students score that answer true item}}{n5}$

$$M_{p5} = \frac{15+24+4+21+22+20+4+22+16+22}{10}$$

$$M_{p5} = \frac{170}{10} = 17.00$$

Item 6 $M_{p6} = \dfrac{\text{the total of students score that answer true item}}{n6}$

$$M_{p6} = \frac{\begin{array}{c}15+24+17+6+4+21+17+16+22+20+16+22\\+17+16+22\end{array}}{15} = \frac{255}{15} = 17.00$$

Item 7 $M_{p7} = \dfrac{\text{the total of students score that answer true item}}{n7}$

$$M_{p7} = \frac{19+24+6+16+20+14+21+17+22+22+16+22+15}{13} = \frac{244}{13} = 18.00$$

Item 8 $M_{p8} = \dfrac{\text{the total of students score that answer true item}}{n8}$

$$M_{p8} = \frac{\begin{array}{c}15+19+15+17+24+17+16+20+14+21+17+16+17+22+20+\\16+22+17+16+22+15+16\end{array}}{22}$$

$$M_{p8} = \frac{394}{22} = 17.90$$

Item 9 $= \dfrac{\text{the total of students score that answer true item}}{n9}$

$$M_{p9} = \frac{24+6+20+4+16+22+16+4+16+22}{10}$$

$$M_{p9} = \frac{150}{10} = 15.00$$

Item 10 $M_{p10} = \dfrac{\text{the total of students score that answer true item}}{n10}$

$$M_{p10} = \frac{15+19+17+24+17+20+4+17+16+17+22+20+16+22+17+16+22+15}{18}$$

$$M_{p10} = \frac{326}{18} = 17.55$$

Item 11 $M_{p11} = \dfrac{\text{the total of students score that answer true item}}{n11}$

$$M_{p11} = \frac{\begin{array}{c}15+19+15+17+24+17+6+16+20+14+21+17+17+22+\\20+16+22+17+16+22+15+16\end{array}}{22}$$

$$M_{p11} = \frac{384}{22} = 17.45$$

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

$$M_{p12} = \frac{\begin{array}{c}15+19+15+17+24+17+16+20+14+21+17+17\\+22+20+16+22+17+15+16\end{array}}{19}$$

$$M_{p12} = \frac{340}{19} = 17.89$$

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

$$M_{p13} = \frac{\begin{array}{c}15+19+15+17+24+17+16+20+14+21+17+16+17+22+20\\+16+22+17+16+22+15+16\end{array}}{22}$$

$$M_{p13} = \frac{394}{22} = 17.90$$

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

$$M_{p9} = \frac{15+19+15+24+17+16+14+21+16+4+22+17+22+15}{14} = \frac{237}{14} = 16.92$$

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

$$M_{p15} = \frac{\begin{array}{c}15+19+17+24+17+20+14+21+17+16+17+22\\+22+17+22+15+16\end{array}}{17}$$

$$M_{p15} = \frac{311}{17} = 18.29$$

Item 16 $M_{p16} = \dfrac{\text{the total of students score that answer true item}}{n16}$

$$Mp_{16} = \frac{19+15+17+24+17+16+20+21+17+16+17+22+20+16+22+17+16+22+16}{19}$$

$$M_{p16} = \frac{350}{19} = 18.42$$

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

$$M_{p17} = \frac{17+19+15+17+24+17+16+20+21+17+16+17+22+20+16+22+17+22+16}{19}$$

$$M_{p17} = \frac{349}{19} = 18.36$$

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

$$M_{p18} = \frac{15+24+16+4+21+22+22+16}{8}$$

$$M_{p18} = \frac{140}{8} = 17.50$$

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

$$M_{p19} = \frac{\begin{array}{c}19+17+24+17+20+14+21+16+17+22+20+16+22+17+16+22\\15+16\end{array}}{18}$$

$$M_{p19} = \frac{331}{18} = 18.38$$

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

$$M_{p20} = \frac{15+19+17+24+17+16+20+21+16+22+20+22+17+16}{14}$$

$M_{p20} = \frac{262}{14} = 18.71$

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

$M_{p21} = \dfrac{15+24+16+21+17+22+20+22}{8}$

$M_{p21} = \frac{157}{8} = 19.62$

Item 22 $M_{p22} = \dfrac{\text{the total of students score that answer true item}}{n22}$

$M_{p22} = \dfrac{15+15+24+6+20+14+21+17+16+17+22+20+22+22+15}{15}$

$M_{p22} = \frac{276}{15} = 18.40$

Item 23 $M_{p23} = \dfrac{\text{the total of students score that answer true item}}{n23}$

$M_{p23} = \dfrac{19+15+17+24+17+16+20+21+17+16+17+22+20+16+22+17+16+22+16}{19}$

$M_{p23} = \frac{350}{18} = 18.42$

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

$M_{p24} = \dfrac{19+17+24+17+20+14+21+17+22+20+4+22+17+16+22+15+16}{17}$

$M_{p24} = \frac{303}{17} = 17.82$

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

$M_{p25} = \dfrac{19+15+17+24+20+17+16+22+20+22+22}{11}$

$M_{p25} = \frac{214}{11} = 19.45$

8. **Calculation of the Formulation** $r_{pbi} = \frac{M_p - M_t}{SD_t} \sqrt{\frac{p}{q}}$

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

$$r_{pbi} = \frac{17.40 - 16.32}{5.04} \sqrt{\frac{0.8}{0.2}}$$

$$r = \frac{1.08}{5.04} \sqrt{4}$$

$$r = 0.214 \times 2 = 0.428$$

Item 2 $r_{pbi} = \frac{17.31 - 16.32}{5.04} \sqrt{\frac{0.8}{0.2}}$

$$r_{pbi} = \frac{0.99}{5.04} \sqrt{4}$$

$$r = 0.196 \times 2 = 0.392$$

Item 3 $r_{pbi} = = \frac{17.76 - 16.32}{5.04} \sqrt{\frac{0.8}{0.2}}$

$$r_{pbi} = \frac{1.44}{5.04} \sqrt{4}$$

$$r = 0.285 \times 2 = 0.570$$

Item 4 $r_{pbi} = = \frac{17.73 - 16.32}{5.04} \sqrt{\frac{0.8}{0.2}}$

$$r_{pbi} = \frac{1.41}{5.04} \sqrt{4}$$

$$r = 0.297 \times 2 = 0.558$$

Item 5 $r_{pbi} = = \frac{17.00 - 16.32}{5.04} \sqrt{\frac{0.4}{0.6}}$

$$r_{pbi} = \frac{0.68}{5.04} \sqrt{0.66}$$

$$r = 0.134 \times 0.182 = 0.108$$

Item 6 $r_{pbi} = = \dfrac{17.00-16.32}{5.04} \sqrt{\dfrac{0.6}{0.4}}$

$r_{pbi} = \dfrac{0.68}{5.04} \sqrt{1.5}$

r = 0.134 x 1.22 = 0.163

Item 7 $r_{pbi} = = \dfrac{18.76-16.32}{5.04} \sqrt{\dfrac{0.5}{0.5}}$

$r_{pbi} = \dfrac{2.44}{5.04} \sqrt{1}$

r = 0.484 x 1 = 0.484

Item 8 $r_{pbi} = = \dfrac{17.90-16.32}{5.04} \sqrt{\dfrac{0.9}{0.1}}$

$r_{pbi} = \dfrac{1.58}{5.04} \sqrt{9}$

r = 0.313 x 3 = 0.939

Item 9 $r_{pbi} = = \dfrac{1500-16.32}{5.04} \sqrt{\dfrac{0.4}{0.6}}$

$r_{pbi} = \dfrac{-1.32}{5.04} \sqrt{0.66}$

r = 0.261 x 0.812 = -0.211

Item 10 $r_{pbi} = = \dfrac{18.11-16.32}{5.04} \sqrt{\dfrac{0.7}{0.3}}$

$r_{pbi} = \dfrac{1.79}{5.04} \sqrt{2.33}$

r = 0.355x 1.52= 0.539

Item 11 $r_{pbi} = = \dfrac{17.45-16.32}{5.04} \sqrt{\dfrac{0.9}{0.1}}$

$r_{pbi} = \dfrac{1.13}{5.04} \sqrt{9}$

$r = 0.224 \text{ x } 3 = 0.672$

Item 12 $r_{pbi} = = \dfrac{17.89 - 16.32}{5.04}\sqrt{\dfrac{0.8}{0.2}}$

$r_{pbi} = \dfrac{1.57}{5.04}\sqrt{4}$

$r = 0.311 \text{x } 1.22 = 0.622$

Item 13 $r_{pbi} = = \dfrac{17.90 - 16.32}{5.04}\sqrt{\dfrac{0.9}{01}}$

$r_{pbi} = \dfrac{1.58}{5.04}\sqrt{9}$

$r = 0.313 \text{ x } 3 = 0.939$

Item 14 $r_{pbi} = = \dfrac{16.92 - 16.32}{5.04}\sqrt{\dfrac{0.6}{0.4}}$

$r_{pbi} = \dfrac{0.6}{5.04}\sqrt{1.5}$

$r = 0.119 \text{ x } 1.22 = 0.145$

tem 15 $r_{pbi} = = \dfrac{18.29 - 16.32}{5.04}\sqrt{\dfrac{0.7}{0.3}}$

$r_{pbi} = \dfrac{1.97}{5.04}\sqrt{2.33}$

$r = 0.390 \text{ x } 1.52 = 0.592$

Item 16 $r_{pbi} = = \dfrac{18.42 - 16.32}{5.04}\sqrt{\dfrac{0.8}{0.2}}$

$r_{pbi} = \dfrac{2.1}{5.04}\sqrt{4}$

$r = 0.416 \text{ x } 2 = 0.832$

Item 17 $r_{\text{pbi}} = = \dfrac{18.36-16.32}{5.04} \sqrt{\dfrac{0.8}{0.2}}$

$r_{\text{pbi}} = \dfrac{2.04}{5.04} \sqrt{4}$

$r = 0.404 \times 2 = 0.808$

Item 18 $r_{\text{pbi}} = = \dfrac{17.50-16.32}{5.04} \sqrt{\dfrac{0.4}{0.6}}$

$r_{\text{pbi}} = \dfrac{1.18}{5.04} \sqrt{0.42}$

$r = 0.234 \times 0.64 = 0.149$

Item 19 $r_{\text{pbi}} = = \dfrac{18.38-16.32}{5.04} \sqrt{\dfrac{0.7}{0.3}}$

$r_{\text{pbi}} = \dfrac{2.06}{5.04} \sqrt{2.33}$

$r = 0.408 \times 1.52 = 0.620$

Item 20 $r_{\text{pbi}} = = \dfrac{18.71-16.32}{5.04} \sqrt{\dfrac{0.6}{0.4}}$

$r_{\text{pbi}} = \dfrac{2.39}{5.04} \sqrt{1.5}$

$r = 0.474 \times 1.5 = 0.720$

Item 21 $r_{\text{pbi}} = = \dfrac{19.62-16.32}{5.04} \sqrt{\dfrac{0.3}{0.7}}$

$r_{\text{pbi}} = \dfrac{3.3}{5.04} \sqrt{0.42}$

$r = 0.654 \times 0.64 = 0.418$

Item 22 $r_{\text{pbi}} = = \dfrac{18.40-16.32}{5.04} \sqrt{\dfrac{0.6}{0.4}}$

$r_{\text{pbi}} = \dfrac{1.41}{5.04} \sqrt{1.5}$

r = 0.279 x 1.22 = 0.502

Item 23 $r_{pbi} = = \dfrac{18.42 - 16.32}{5.04}\sqrt{\dfrac{0.8}{0.2}}$

$r_{pbi} = \dfrac{2.1}{5.04}\sqrt{4}$

r = 0.416 x 2 = 0.832

Item 24 $r_{pbi} = \dfrac{17.82 - 16.32}{5.04}\sqrt{\dfrac{0.7}{0.3}}$

$r_{pbi} = \dfrac{1.5}{5.04}\sqrt{2.33}$

r = 0.297 x 1.51 = 0.448

Item 25 $r_{pbi} = = \dfrac{19.45 - 16.32}{5.04}\sqrt{\dfrac{0.4}{0.6}}$

$r_{pbi} = \dfrac{3.13}{5.04}\sqrt{0.66}$

r = 0.621 x 0.812 = 0.504

Appendix 11

Table Validity of Post- Test

Number of Item	M_p	M_t	SD_t	P	Q	$r_{pbi} = \frac{M_p - M_t}{SD_t}\sqrt{\frac{p}{q}}$	r_t on 5% significant	Interpretation
1.	17.40	16.32	5.04	0.8	0.2	0.428	0.381	Valid
2.	17.31	16.32	5.04	0.8	0.2	0.392	0.381	Valid
3.	17.76	16.32	5.04	0.8	0.2	0.570	0.381	Valid
4.	17.73	16.32	5.04	0.8	0.2	0.550	0.381	Valid
5.	17.00	16.32	5.04	0.4	0.6	0.108	0.381	Invalid
6.	17.00	16.32	5.04	0.6	0.4	0.163	0.381	Invalid
7.	18.00	16.32	5.04	0.5	0.5	0.484	0.381	Valid
8.	17.90	16.32	5.04	0.9	0.1	0.939	0.381	Valid
9.	15.00	16.32	5.04	0.4	0.6	0.211	0.381	Invalid
10.	17.55	16.32	5.04	0.7	0.3	0.539	0.381	Valid
11.	17.45	16.32	5.04	0.9	0.1	0.672	0.381	Valid
12.	17.89	16.32	5.04	0.8	0.2	0.622	0.381	Valid
13.	17.90	16.32	5.04	0.9	0.1	0.939	0.381	Valid
14.	16.92	16.32	5.04	0.6	0.4	0.145	0.381	Invalid
15.	18.29	16.32	5.04	0.7	0.3	0.592	0.381	Valid
16.	18.42	16.32	5.04	0.8	0.2	0.832	0.381	Valid
17.	18.36	16.32	5.04	0.8	0.2	0.808	0.381	Valid
18.	17.50	16.32	5.04	0.3	0.7	0.149	0.381	Invalid
19.	18.38	16.32	5.04	0.7	0.3	0.620	0.381	Valid
20.	18.71	16.32	5.04	0.6	0.4	0.720	0.381	Valid
21.	19.62	16.32	5.04	0.3	0.7	0.418	0.381	Valid
22.	18.40	16.32	5.04	0.6	0.4	0.502	0.381	Valid
23.	18.42	16.32	5.04	0.8	0.2	0.832	0.381	Valid
24.	17.82	16.32	5.04	0.7	0.3	0.448	0.381	Valid
25.	19.45	16.32	5.04	0.4	0.6	0.504	0.381	Valid

Appendix 12

Reliability Pre Test

NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	Xt	Xt²
1	1	0	0	0	0	0	0	1	0	1	1	1	1	1	1	1	1	1	0	1	1	1	0	0	1	15	225
2	1	1	0	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	1	20	400
3	1	1	0	1	0	1	1	0	1	0	1	1	1	1	0	0	0	0	1	1	1	1	1	0	1	16	256
4	1	0	0	0	0	0	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	5	25
5	1	0	1	0	1	0	1	1	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	10	100
6	1	1	0	1	0	1	1	1	1	0	0	1	0	1	0	0	1	0	1	1	1	1	0	0	0	14	196
7	1	1	0	0	1	1	1	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1	0	0	0	18	324
8	0	1	0	0	1	0	0	1	0	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	6	36
9	1	1	0	0	1	1	1	0	0	1	1	1	0	1	1	0	1	0	1	1	1	1	0	0	0	15	225
10	1	1	0	0	1	1	1	1	0	1	1	0	1	1	1	1	1	0	1	1	1	1	1	0	1	19	361
11	1	1	0	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	21	441
12	1	1	0	1	1	1	1	1	0	0	1	1	1	0	1	1	0	0	1	1	1	1	1	0	0	17	289
13	0	1	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	4	16
14	1	1	0	0	0	1	1	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	20	400
15	0	0	1	0	0	1	1	1	0	1	1	1	1	0	1	1	0	1	1	1	1	1	0	0	1	16	256
16	1	1	1	1	0	0	0	0	0	1	1	1	1	1	1	1	1	0	1	0	1	1	1	1	1	18	324
17	0	1	0	0	1	1	0	0	1	0	1	1	0	1	1	0	0	0	0	1	1	1	1	0	0	12	144
18	0	1	0	0	1	0	0	1	0	1	0	1	1	0	1	1	0	0	0	0	1	1	1	0	1	11	121

Appendix 13

Reliability Post Test

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	Xt	Xt²
1	1	0	1	1	1	1	0	1	0	1	1	1	1	1	1	0	1	0	0	1	0	1	0	0	0	15	225
2	1	1	1	1	0	0	1	1	0	1	1	1	1	1	1	1	1	0	1	1	0	0	1	1	1	19	361
3	1	1	1	0	0	0	0	1	0	0	1	1	1	1	0	1	1	1	0	0	1	1	1	0	1	15	225
4	1	1	1	1	0	0	0	1	0	1	1	1	1	0	1	1	1	0	1	1	0	0	1	1	1	17	289
5	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	24	576
6	1	0	1	1	0	1	0	1	0	1	1	1	1	1	1	1	1	0	1	1	0	0	1	1	0	17	289
7	0	1	0	0	0	1	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	6	36
8	1	1	1	1	0	0	1	1	0	0	1	1	1	1	0	1	1	1	0	1	1	0	1	0	0	16	256
9	1	1	1	1	0	0	1	1	1	1	1	1	1	0	1	1	1	0	1	1	0	1	1	1	1	20	400
10	1	1	1	1	0	0	1	1	0	0	1	1	1	1	1	0	0	0	1	0	0	1	0	1	0	14	196
11	0	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	4	16
12	1	1	0	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	21	441
13	1	1	1	1	0	1	1	1	0	1	1	1	1	0	1	1	1	0	0	0	0	1	1	0	1	17	289
14	1	1	1	0	0	1	0	1	1	1	0	0	1	0	1	1	1	0	1	1	0	1	1	0	1	16	256
15	1	1	1	1	0	0	0	1	0	1	1	1	1	0	1	1	1	0	1	0	1	1	1	1	0	17	289
16	0	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1	1	1	1	1	22	484
17	1	1	1	1	1	1	0	1	0	1	1	1	1	0	0	1	1	0	1	1	1	1	1	1	1	20	400

Appendix 14

Reliability Pre Test

$$R_{11} = \left(\frac{n}{n-1}\right)\left(\frac{S_{t^2}-\Sigma pq}{S_{t^2}}\right)$$

N = 25

$\Sigma Xt = 360$

$\Sigma Xt^2 = 5664$

$\Sigma pq = 5.348$

$$S_t^2 = \Sigma Xt^2 - \left(\frac{\Sigma xt}{N}\right)^2$$

$$= 5664 - \left(\frac{360}{25}\right)^2 = 5664 - \frac{129600}{25} = 5664 - 5184 = 480$$

$$S_t^2 = \frac{\Sigma Xt2}{N} = \frac{480}{25}$$

$$S_t^2 = 19.20$$

$$R_{11} = \left(\frac{n}{n-1}\right)\left(\frac{S_{t^2}-\Sigma pq}{S_{t^2}}\right)$$

$$R_{11} = \left(\frac{25}{25-1}\right)\left(\frac{19.20-5.348}{19.20}\right) = \left(\frac{25}{24}\right)\left(\frac{13.852}{19.20}\right)$$

$$= (1.04)\,(0.72)$$

$$= .0.75 \; (r_{11} > 0.70 = \text{reliable})$$

Appendix 15

Reliability Post Test

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

N= 25

$\sum Xt = 408$

$\sum Xt^2 = 7294$

$\sum pq = 4.928$

$$S_t^2 = \sum Xt^2 - \left(\frac{\sum xt}{N}\right)^2$$

$$= 9253 - \left(\frac{408}{25}\right)^2 = 7294 - \frac{166464}{25} = 7294 - 6658.56 = 635.44$$

$$S_t^2 = \frac{\sum Xt2}{N} = \frac{635.44}{25}$$

$$S_t^2 = 25.4176$$

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

$$R_{11} = \left(\frac{25}{25-1}\right)\left(\frac{25.4176 - 4.928}{25.4176}\right) = \left(\frac{25}{24}\right)\left(\frac{20.4896}{25.4176}\right)$$

$$= (1.04)\,(0.\,80)$$

$$= 0.83 \ (r_{11} > 0.70 = reliable)$$

Appendix 16

Score of Experimental Class and Control Class Pre Test

1. **Score of Experimental Class Pre Test before using K-W-L (Know, Want, Learn) Strategy**

The Initial Name of Students (n)	Pre-Test	The Initial Name of Students (n)	Pre-Test
1. AAS	60	17. NSR	60
2. ASI	55	18. NAI	60
3. AAW	50	19. NUA	70
4. ARD	50	20. RFH	50
5. AYR	75	21. RYH	75
6. DHI	55	22. RAI	75
7. KAI	4	23. RNI	4

No.	Code	Value	No.	Code	Value
		5			5
8.	KAN	70	24.	SNH	55
9.	KPN	60	25.	SIH	60
10.	LMH	60	26.	SDD	60
11.	LSI	55	27.	URZ	75
12.	MKH	60	28.	WAN	65
13.	MRI	60	29.	WSI	70
14.	MdA	65	30.	WAH	65
15.	MAK	75	31.	YRO	50
16.	NND	70			

Total	1900

2. Score of Control Class Pre Test

The Initial Name of Students (n)	Pre-Test	The Initial Name of Students (n)	Pre-Test
1. ARN	45	18. PUI	60
2. AFI	60	19. RDE	45
3. ASN	65	20. RYH	50
4. ARY	50	21. RSR	65
5. ANI	6	22. RAH	5

5

6. ARN   5   23. RHI   6

0   5

7. BAR   5   24. RSM   7

5   0

8. BKA   7   25. RSL   5

0   5

9. DLE   5   26. RDG   7

5   0

10. FFS   5   27. SRU   7

5   0

11. FAN   7   28. SUA   6

5   0

12. HBI   6   29. SWH   7

0   5

13. KSR   7   30. SAR   6

5   0

14. KRT   6   31. TWL   7

0   5

15. MTA   6

0

16. MSR	6
	0
17. NNA	6
	0
Total	1900

Score of Experimental Class and control Class Post Test

1. **Score of Experimental Class Post-Test after using K-W-L (Know, Want, Learn) Strategy**

The Initial Name	P re-	The Initial Name	P re-

of Students (n)	Test	of Students (n)	Test
1. AAS	80	17. NSR	65
2. ASI	65	18. NAI	80
3. AAW	70	19. NUA	80
4. ARD	85	20. RFH	70
5. AYR	70	21. RYH	85
6. DHI	70	22. RAI	85
7. KAI	90	23. RNI	75
8. KAN	75	24. SNH	90
9. KPN	90	25. SIH	75
10. LMH	7	26. SDD	9

	5		0
11. LSI	9	27. URZ	8
	5		0
12. MKH	8	28. WAN	9
	0		5
13. MRI	9	29. WSI	8
	5		0
14. MdA	8	30. WAH	9
	0		5
15. MAK	8	31. YRO	8
	0		0
16. NND	9		
	5		
Total		2520	

2. The Score of Control Class Post Test by Using Conventional Strategy

The Initial Name of Students (n)	Pre-Test	The Initial Name of Students (n)	Pre-Test
1. ARN	40	18. PUI	55
2. AFI	55	19. RDE	40
3. ASN	60	20. RYH	45
4. ARY	45	21. RSR	60
5. ANI	60	22. RAH	45
6. ARN	45	23. RHI	65
7. BAR	65	24. RSM	50

8.	BKA	50	25. RSL	65
9.	DLE	65	26. RDG	50
10.	FFS	50	27. SRU	70
11.	FAN	70	28. SUA	55
12.	HBI	55	29. SWH	70
13.	KSR	70	30. SAR	55
14.	KRT	55	31. TWL	70
15.	MTA	55		
16.	MSR	70		
17.	NNA	55		

Total 1745

Appendix 18

RESULT OF THE NORMALITY TEST OF VIII$_1$
IN PRE-TEST

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

5	5	0	0	0	0	5	5
5	5	0	0	0	0	0	0
0	0	0	5	5	5	0	0
0	0	5	5	5	5	5	

2. High   = 75

       Low   = 45

       Range   = High – Low

                       = 75 – 45

                       = 30

3. Total of Classes   = 1 + 3.3 log (n)

                         = 1 + 3.3 log (31)

                         = 1 + 3.3 (1.49)

                         = 1 + 4.91

                         = 5.91

                         = 6

4. Length of Classes $= \dfrac{range}{total\ of\ class} = \dfrac{30}{6} = 5$

5. Mean and Deviation Standard

              I

Class Interval		x'	'2	x'2

4

5 – 49   7   8

5

0 – 54   4   2   6

5

5 – 59   7

6

0 – 64   2

6

5 – 69   7   1   3

7

0 – 74   2   2   8   6

7   77

5 – 79   3   15   9   5

i   -

= 5   7   8   02

$$Mx = M^1 + i \frac{\Sigma f x^1}{N}$$

$$= 62 + 5 \left(\frac{-8}{31}\right)$$

$$= 62 + 5 \,(0.25)$$

$$= 62 + 1.25$$
$$= 63.25$$

$$SD_t = i \sqrt{\frac{\Sigma fx'^2}{N} - \left[\frac{\Sigma fx'}{N}\right]^2}$$

$$= \sqrt[5]{\frac{102}{31} - \left(\frac{-8}{31}\right)^2}$$
$$= \sqrt[5]{3.29 - (0.25)^2}$$
$$= \sqrt[5]{3.29 - 0.062}$$
$$= \sqrt[5]{3.22}$$
$$= 5\,(1.79)$$
$$= 8.95$$

Table of the Frequency Distribution is Expected and Observation

Interval of Score	Real Upper Limit	Z Score	Limit of Large of the Area	Large of area	h	0	f₀-f_h)/h
75 – 79	79.5	1.81	0.4649	0.07	.17		1.30
70 – 74	74.5	1.25	0.3944	0.13	.03		- 0.00
65 – 69	69.5	0.69	0.2549	0.20	.2		- 0.51
60 – 64	64.5	0.13	0.0517	- 0.28	8.68		0.03
55 – 59	59.5	- 0.41	0.34090	0.17	.27		- 0.24
50 – 54	54.5	- 0.97	0.16602	0.10	.1		
4	4	- 1.53	0.06301	0			

5 – 49	9.5			.04	.24		0.29
	4.5	4	-2.09	0.01831			0.61
						X^2	.48

Based on table above, reseracher found that $x^2_{count} = 1.48$ while $x^2_{table} = $ **5,991** cause $x^2_{cause} < x^2_{table}$ (1.48 < **5,991**) with degree of freedom dk = 5 – 3 = 2 and significat level $\alpha = 5\%$. So distribution of $VIII_1$ (Pre-test) is normal.

6. Median

o	Interval of Classes	F	F k
	45 – 49	2	2
	50 - 54	4	6
	55 - 59	4	10
	60 - 64	9	1
	65 - 69	3	19
	70 - 74	4	22

		75 - 79	5
			2
			6
			3
			1

Position of Me in the interval of classes is number 4, that:

Bb= 59.5
F = 4
fm= 9
i = 5
n = 31
1/2n   =15.5

So :

$$Me = Bb + i \left(\frac{n/2 - F}{fm} \right)$$

$$= 59.5 + 5\left(\frac{15.5-4}{9}\right)$$

$$= 59.5 + 5\ (1.27)$$

$$= 59.5 + 6.35$$

$$= 65.85$$

7. Modus

o	Interval of Classes	F	F k
	45 – 49	2	2
	50 - 54	4	6
	55 - 59	4	10
	60 - 64	9	19
	65 - 69	3	22
	70 - 74	4	26
	75 - 79	5	31

$$M_o = L + \frac{d_1}{d_1 + d_2}\, i$$

L = 59.5
d_1 = 5
d_2 = 6
i = 5
M_o = $59.5 + \frac{5}{5+6}\ 5$
= 59.5 + 0.45 (5)
= 59.5 + 2.25
= 61.75

RESULT OF THE NORMALITY TEST OF VIII$_2$
IN PRE-TEST

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

5	5	0	0	0	0	5	5
5	5	0	0	0	0	0	0
0	0	0	5	5	5	5	0
0	0	0	5	5	5	5	

2. High = 75
   Low = 45
   Range = High – Low
   $$= 75 - 45$$
   $$= 30$$

3. Total of Classes = 1 + 3.3 log (n)
   $$= 1 + 3.3 \log (31)$$
   $$= 1 + 3.3 (1.49)$$
   $$= 1 + 4.91$$
   $$= 5.91$$
   $$= 6$$

4. Length of Classes $= \dfrac{range}{total\ of\ class} = \dfrac{30}{6} = 5$

5. Mean and Deviation Standard

Interval Class			,	x'	'2	x'2
45 – 49		7				8
50 – 54	4	2				6
55 – 59		7				
60 – 64		2				
65 – 69		7	1	4		
70 – 74		2	2	8		6
75 – 79	77		3	12	9	6
i = 6	1	-		6		4

$$Mx = M^1 + i \frac{\Sigma f x^1}{N}$$

$$= 62 + 5 \left(\frac{-6}{31}\right)$$
$$= 62 + 5 \, (0.19)$$
$$= 62 + 0.95$$
$$= 62.95$$

$$SD_t = i \sqrt{\frac{\Sigma f x'^2}{N} - \left[\frac{\Sigma f x'}{N}\right]^2}$$

$$= 5\sqrt{\frac{94}{31} - \left(\frac{-6}{31}\right)^2}$$
$$= 5\sqrt{3.03 - (0.19)^2}$$
$$= 5\sqrt{3.03 - 0.03}$$
$$= 5\sqrt{3}$$
$$= 5 \, (1.73)$$
$$= 8.65$$

Table of the Frequency Distribution is Expected and Observation

Interval of Score	Real Upper Limit	Z Score	Limit of Large of the Area	Large of area	h	0	$\frac{f_0 - f_h)}{h}$

Interval		O					
75 – 79	79.5	7	1.91	0.4719	0.06	.18	2.38
70 – 74	74.5	7	1.33	0.4082	0.13	.03	-0.00
65 – 69	69.5	6	.75	0.2734	0.20	.2	-0.35
60 – 64	64.5	6	.17	0.0675	-0.28	8.68	0.03
55 – 59	59.5	5	-0.38	0.35197	0.18	.58	-0.28
50 – 54	54.5	5	-0.97	0.16602	0.10	.1	0.29
45 – 49	49.5	4	-1.55	0.06057	0.04	.24	0.61
	44.5	4	-2.13	0.01659			
						X^2	.68

Based on table above, reseracher found that $x^2{}_{count} = 2.68$ while $x^2{}_{table} = $ **5,991** cause $x^2{}_{cause} < x^2{}_{table}$ (2.68 < **5,991**) with degree of freedom dk = 5 – 3 = 2 and significat level $\alpha = 5\%$. So distribution of VIII$_1$ (Pre-test) is normal.

6. Median

o	Interval of Classes	F	F k

	Interval	F	F
	45 – 49	2	2
	50 - 54	4	6
	55 - 59	4	10
	60 - 64	9	19
	65 - 69	4	23
	70 - 74	4	27
	75 - 79	4	31

Position of Me in the interval of classes is number 4, that:
Bb= 59.5
F = 4
fm= 9
i   = 5
n = 31
1/2n   =15.5

So :

$$Me = Bb + i \left(\frac{n/2 - F}{fm} \right)$$

$$= 59.5 + 5\left(\frac{15.5-4}{9} \right)$$

= 59.5 + 5 (1.27)
= 59.5 + 6.35
= 65.85

7. Modus

	Interval	F	F

o	of Classes		k
	45 – 49	2	2
	50 - 54	4	6
	55 - 59	4	1 0
	60 - 64	9	1 9
	65 - 69	4	9
	70 - 74	4	2 3
	75 - 79	4	2 7
			3 1

$$M_o = L + \frac{d_1}{d_1 + d_2}\, i$$

L $= 59.5$
d_1 $= 5$
d_2 $= 6$
i $= 5$
M_o $= 59.5 + \frac{5}{5+6}\, 5$
  $= 59.5 + 0.45\,(5)$
  $= 59.5 + 2.25$
  $= 61.75$

RESULT OF THE NORMALITY TEST OF VIII$_3$
IN PRE-TEST

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

5	5	0	0	0	0	0	5
5	5	0	0	0	0	0	5
5	5	5	5	5	5	5	5
5	5	5	5	5	0	0	0
0	5	5					

2. High   = 75
    Low   = 45
    Range   = High – Low
                  = 75 – 45
                  = 30

3. Total of Classes   = 1 + 3.3 log (n)
                           = 1 + 3.3 log (35)
                           = 1 + 3.3 (1.54)
                           = 1 + 5.08
                           = 6.08

$$= 6$$

4. Length of Classes $= \dfrac{range}{total\ of\ class}$ $= \dfrac{30}{6} = 5$

5. Mean and Deviation Standard

Interval Class		x'	$'2$	x'^2
4 5 – 49	7		6	2
5 0 – 54	2	5		5
5 5 – 59	7			2
6 0 – 64	2			
6 5 – 69	4 **7**			
7 0 – 74	2	2 6		2
7 5 – 79	7	1 3		
i	-			

= 5   5   5   09

$$Mx = M^1 + i\frac{\Sigma fx^1}{N}$$

$$= 67 + 5\left(\frac{25}{35}\right)$$
$$= 67 + 5(0.71)$$
$$= 67 + (3.55)$$
$$= 70.55$$

$$SD_t = i\sqrt{\frac{\Sigma fx'^2}{N} - \left[\frac{\Sigma fx'}{N}\right]^2}$$

$$= \sqrt[5]{\frac{109}{35} - \left(\frac{25}{35}\right)^2}$$
$$= \sqrt[5]{3.11 - (0.71)^2}$$
$$= \sqrt[5]{3.11 - 0.50}$$
$$= \sqrt[5]{2.61}$$
$$= 5(1.61)$$
$$= 8.05$$

Table of the Frequency Distribution is Expected and Observation

Interval of Score	Real Upper Limit	Z – Score	Limit of Large of the Area	Large of area	h	0	f0-fh) h

Interval of Classes	Boundary	Z	Area	Difference	Expected	f_o	X^2
75 – 79	79.5	1.11	0.3665	0.17	.95		0.49
70 – 74	74.5	0.49	0.1879	-0.11	3.85		0.22
65 – 69	69.5	0.84	0.2995	-0.14	4.90	4	1.85
60 – 64	64.5	-0.13	0.44828	-0.36	12.6		0.60
55 – 59	59.5	-1.37	0.08534	0.06	.10		.42
50 – 54	54.5	-1.99	0.02330	0.01	.35		3.2
45 – 49	49.5	-2.61	0.00453	0.00			.00
	44.5	-3.23	0.00062				
						X^2	2.2

Based on table above, reseracher found that $x^2{}_{count} = 12.2$ while $x^2{}_{table} = $ **5,991** cause $x^2{}_{cause} < x^2{}_{table}$ (12.2<**5,991**) with degree of freedom dk = 5 – 3 = 2 and significat level $\alpha = 5\%$. So distribution of $VIII_3$ (Pre-test) is not normal.

6. Median

o	Interval of Classes	F	F k

	45 – 49	2	2
	50 – 54	5	7
	55 – 59	3	10
	60 – 64	5	15
	65 – 69	14	15
	70 – 74	3	29
	75 – 79	3	32
			35

Position of Me in the interval of classes is number 5, that:

Bb = 64.5
F = 5
fm = 14
i = 5
n = 35
1/2n = 17.5

So :

$$Me = Bb + i \left(\frac{\frac{n}{2} - F}{fm} \right)$$

$$= 64.5 + 5 \left(\frac{17.5 - 5}{14} \right)$$

= 64,5 + 5 (0.89)

= 64,5 + 4.45

= 68.95

7. Modus

o	Interval of Classes	F	Fk
	45 – 49	2	2
	50 – 54	5	7
	55 – 59	3	10
	60 – 64	5	15
	65 – 69	14	29
	70 – 74	3	32
	75 – 79	3	35

$$M_o = L + \frac{d_1}{d_1 + d_2}\, i$$

$L \quad = 64.5$
$d_1 \quad = 9$
$d_2 \quad = 11$
$i \quad = 5$
$M_o \quad = 64.5 + \frac{9}{9+11}\,5$
$\quad\quad = 64.5 + 0.45\,(5)$
$\quad\quad = 64.5 + 2.25$
$\quad\quad = 66.75$

HOMOGENEITY TEST (PRE-TEST)

Calculation of parameter to get variant of the first class as experimental class sample by using K-W-L (Know, Want, Learn) Strategy and variant of the second class as control class sample by using conventional strategy are used homogeneity test by using formula:

$$S^2 = \frac{n\Sigma xi^2 - (\Sigma xi)}{n(n-1)}$$

Hypotheses:

H_0 : $\delta_1^2 = \delta_2^2$

H_1 : $\delta_1^2 \neq \delta_2^2$

A. Variant of the VIII-1class is:

O	i	i²
		2
	5	025
		2
	5	025
		2
	0	500
		2
	0	500
		2

	0		500
		:	2
	0		500
		:	3
	5		025
		:	3
	5		025
		:	3
	5		025
		:	3
0	5		025
		(	3
1	0		600
		(	3
2	0		600
		(	3
3	0		600
		(	3
4	0		600
		(	3
5	0		600

		3
6	0	600
		3
7	0	600
		3
8	0	600
		3
9	0	600
		4
0	5	225
		4
1	5	225
		4
2	5	225
		4
3	0	900
		4
4	0	900
		4
5	0	900
		4

6	0	900
	'	5
7	5	625
	'	5
8	5	625
	'	5
9	5	625
	'	5
0	5	625
	'	5
1	5	625
		1
	900	18950

$$n = 31$$
$$\sum xi = 1900$$
$$\sum xi\,2 = 118950$$

So:

$$S^2 = \frac{n\Sigma xi^2 - (\Sigma xi)}{n(n-1)}$$

$$\frac{31(118950) - (1900)^2}{31(31-1)}$$

$$= \frac{3687450 - 3610000}{31(30)}$$

$$= \frac{77450}{930}$$

$$= 83.27$$

B. Variant of the VIII-2 class is:

N O	Xi	Xi²
1	45	2025
2	45	2025
3	50	2500
4	50	2500
5	50	2500
6	50	2500

7	:	3
	5	025
8	:	3
	5	025
9	:	3
	5	025
10	:	3
	5	025
11	(	3
	0	600
12	(	3
	0	600
13	(	3
	0	600
14	(	3
	0	600
15	(	3
	0	600
16	(	3
	0	600
1	(	3

7	0	600
1	(	3
8	0	600
1	(	3
9	0	600
2	(	4
0	5	225
2	(	4
1	5	225
2	(	4
2	5	225
2	(	4
3	5	225
2	'	4
4	0	900
2	'	4
5	0	900
2	'	4
6	0	900
2	'	4
7	0	900

2	'	5
8	5	625
2	'	5
9	5	625
3	'	5
0	5	625
3	'	5
1	5	625
		1
900		18550

$$n = 31$$
$$\sum xi = 1900$$
$$\sum xi\,2 = 118550$$

So:

$$S^2 = \frac{n\Sigma xi^2 - (\Sigma xi)}{n(n-1)}$$

$$= \frac{31(118550) - (1900)^2}{31(31-1)}$$

$$= \frac{3675050 - 3610000}{31(30)}$$

$$= \frac{65050}{930}$$

$$= 69.94$$

C. Variant of the VIII- 3 class is:

X$_O$	X$_i$	X$_i^2$
	4	2
	5	025
	4	2
	5	025
	0	2 500
	0	2 500
	0	2 500
	0	2 500
	0	2 500
	5	3 025
	5	3 025
		3

0	5	025
	(	3
1	0	600
	(	3
2	0	600
	(	3
3	0	600
	(	3
4	0	600
	(	3
5	0	600
	(	4
6	5	225
	(	4
7	5	225
	(	4
8	5	225
	(	4
9	5	225
	(	4
0	5	225

			4
1	5	225	
			4
2	5	225	
			4
3	5	225	
			4
4	5	225	
			4
5	5	225	
			4
6	5	225	
			4
7	5	225	
			4
8	5	225	
			4
9	5	225	
			4
0	0	900	
			4

1	0	900
	'	4
2	0	900
	'	4
3	0	900
	'	5
4	5	625
	'	5
5	5	625
	'	1
	145	33625

n $= 35$

$\sum xi = 2145$

$\sum_{xi} 2 = 133625$

So:

$$S^2 = \frac{n\Sigma xi^2 - (\Sigma xi)}{n(n-1)}$$

$$\frac{35(133625) - (2145)^2}{35(35-1)}$$

$$= \frac{4676875 - 4601025}{35(34)}$$

$$= \frac{75850}{1190}$$

$$= 63.7395$$

The Formula was used to test hypothesis was:

1. VIII-1 and VIII-2 :

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

So:
$$F = \frac{83.27}{69.94}$$
$$= 1.19$$

After doing the calculation, researcher found that $F_{count} = 1.19$ with α 5 % and dk $= 31$ from the distribution list F, researcher found that $F_{table} = 2.042$, cause $F_{count} < F_{table}$ (1.19 < 2.042). So, there is no difference the variant between the VIII-1 class and VIII-2 class. It means that the variant is homogenous.

2. VIII-1 and VIII-3 :

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

So:
$$F = \frac{83.27957}{63.7395}$$
$$= 1.30$$

After doing the calculation, researcher found that $F_{count} = 1.30$ with α 5 % and dk $= 31$ from the distribution list F, researcher found that $F_{table} = 2.042$,

cause $F_{count} < F_{table}$ (1.30 < 2.042). So, there is no difference the variant between the VIII-1 class and VIII-3 class. It means that the variant is homogenous.

3. VIII-2 and VIII- 3:

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

So:
$$F = \frac{69.94}{60.90}$$
$$= 1.14$$

After doing the calculation, researcher found that $F_{count} = 1.14$ with α 5 % and dk = 31 from the distribution list F, researcher found that $F_{table} = 2.042$, cause $F_{count} < F_{table}$ (1.14 < 2.042). So, there is no difference the variant between the VIII-2 class and VIII- 3 class. It means that the variant is homogenous.

Appendix 20

RESULT OF THE NORMALITY TEST OF EXPERIMENT CLASS
IN POST-TEST

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

5	5	0	0	0	0	5
5	5	5	0	0	0	0
0	0	0	0	0	5	5
5	0	0	0	0	5	5
5	5	5				

9. High = 95
   Low = 65
   Range = High – Low
   = 95 – 65
   = 30

10. Total of Classes = 1 + 3,3 log (n)
    = 1 + 3,3 log (31)
    = 1 + 3,3 (1.49)
    = 1 + 4.91
    = 5.91
    = 6

11. Length of Classes $= \dfrac{range}{total\ of\ class}$ $= \dfrac{30}{6} = 5$

12. Mean

Class Interval	f	x'	fx'	fx'²
65 – 69	7			8
70 – 74	2			6
75 – 79	7			
80 – 84	2			
85 – 89	7	1	3	
90 – 94	2	2	8	6
95 – 99	7	3	15	5
$i = 5$	1		8	02

$$Mx = M^1 + i\frac{\Sigma fx^1}{N}$$
$$= 82.5 + 5(\frac{-8}{31})$$
$$= 82.5 + 5(-0.25)$$

$$= 82.5 + (-1.25)$$
$$= 83.75$$

$$SD_t = i \sqrt{\frac{\Sigma fx'^2}{N} - \left[\frac{\Sigma fx'}{N}\right]^2}$$

$$= \sqrt[5]{\frac{102}{31} - \left(\frac{-8}{31}\right)^2}$$
$$= \sqrt[5]{3.29 - (-0.25)^2}$$
$$= \sqrt[5]{3.29 - 0.062}$$
$$= \sqrt[5]{3.22}$$
$$= 5\,(1.79)$$
$$= 8.95$$

Table of Normality Data Test with Chi Kuadrad Formula

Interval of Score	Real Upper Limit	– Score	Limit of Large of the Area	Large of area	h	0	f0-fh)/fh
	9.5	.75	0.4599				
95 – 99				.07	.17		.30
	4.5	.20	0.3849				
90 – 94	9.5	.64	0.2389	.14	.34		0.07
				.20	.20		051
85 – 89	4.5	.08	0.0319				1
				0.28	8.68		
80 – 84	9.5	0.47	0.31918	0.11			.03
	4.5	1.03	0.15151		3.41		.17
75 – 79				0.09			
	9.5	1.59			.79		.43
			0.0559	.04			

0 – 74	4.5	2.15	2		.24		.61
6 5 – 69			0 .0157 8				
						X^2	.96

Based on table above,reseracher found that x^2_{count} = 1.96 while x^2_{table} = **5,991**cause x^2_{cause} < x^2_{table} (1.96 <**5,991**) with degree of freedom dk = 5 – 3 = 2 and significat level α = 5%. So distribution of experiment class (Post Test) was normal.

13. Median

o	Interval of Classes	F	F k

	65 – 69	2	2
	70 - 74	4	6
	75 - 79	4	10
	80 - 84	9	19
	85 - 89	3	22
	90 - 94	4	26
	95 - 99	5	31

Position of Me in the interval of classes is number 4, that:

Bb= 79.5

F = 4

fm= 9

i = 5

n = 31

1/2n   =15.5

So :

$$Me = Bb + i\left(\frac{n/2 - F}{fm}\right)$$

$$= 79.5 + 5\left(\frac{15.5-4}{9}\right)$$

$$= 79.5 + 5(1.27)$$

$$= 79.5 + 6.35$$

$$= 85.85$$

14. Modus

o	Interval of Classes	F	Fk
	65 – 69	2	2
	70 - 74	4	6
	75 - 79	4	10
	80 - 84	9	19
	85 - 89	3	22
	90 - 94	4	26
	95 - 99	5	31

$M_o = L + \dfrac{d_1}{d_1 + d_2} \, i$

L $= 79.5$

$d_1 = 5$

$d_2 = 6$

i $= 5$

$M_o = 79.5 + \dfrac{5}{5+6} \, 5$

$= 79.5 + 0.45(5)$

$= 79.5 + 2.25$

$= 81.75$

**RESULT OF THE NORMALITY TEST OF CONTROL CLASS
IN POST TEST**

1. The score of control class in post test from low score to high score:

0	0	5	5	5	5	0
0	0	0	5	5	5	5
5	5	5	5	5	0	0
0	5	5	5	5	0	0
0	0	0				

2. High = 70

    Low = 40

    Range = High – Low

$$= 70 - 40$$
$$= 30$$

3. Total of Classes = 1 + 3.3 log (n)

$$= 1 + 3.3 \log (31)$$

$$= 1 + 3.3 (1.49)$$

$$= 1 + 4.91$$

$$= 5.91$$

$$= 6$$

4. Length of Classes $= \dfrac{range}{total\ of\ class} = \dfrac{30}{6} = 5$

5. Mean

Interval Class		'	x'	'2	x'²
40 – 44	2				8
45 – 49	7				6
50 – 54	2				
55 – 59	7				
60 – 64	2	1	3		
65 – 69	7	2	8		6
70 – 74	2	3	15		5
$i = 5$	1		8		02

$$Mx = M^1 + i\frac{\Sigma fx^1}{N}$$

$$= 57 + 5\left(\frac{-8}{31}\right)$$

$$= 57 + 5\,(-0.25)$$

$$= 57 + (1.25)$$

$$= 58.25$$

$$SD_t = i\sqrt{\frac{\Sigma fx'^2}{N} - \left[\frac{\Sigma fx'}{N}\right]^2}$$

$$= 5\sqrt{\frac{102}{31} - \left(\frac{-8}{31}\right)^2}$$

$$= 5\sqrt{3.29 - (-0.25)}$$

$$= 5\sqrt{3.29 - 0.062}$$

$$= 5\sqrt{3.22}$$

$$= 5\,(1.79)$$

$$= 8.95$$

Table of Normality Data Test with Chi Kuadrad Formula

Interval of Score	Real Upper Limit	Z − Score	Limit of Large of the Area	Large of area	f_h	f_0	$\frac{f_0 - f_h)}{f_h}$
0 - 74	74.5	1.98	0.4761				
				0.05	.55		.22
	69.5	1.42	0.4222				
5 − 69				0.11	.41		.17
	64.5	0.86	0.3051				
				0.18	.58		0.46
0 − 64	59.5	0.30	0.1179				
				-0.28	8.68		.03
	54.5	-0.25	0.40129				
				0.19	.89		0.32

Interval							
5 – 59	49.5	-0.81	0.20897	0.12	.72		.07
	44.5	-1.36	0.08691	0.05	.55		.29
0 – 54	39.5	-1.92	0.02743				
5 - 49							
0 - -44							
						X^2	2.0

Based on table above, reseracher found that $x^2_{count} = 2.0$ while $x^2_{table} = $ **5,991** cause $x^2_{cause} < x^2_{table}$ (2.0 < **5,991**) with degree of freedom dk = 5 – 3 = 2 and significat level α = 5%. So distribution of control class (Post-test) was normal.

6. Median

	Interval	
o	Class	k

40 - 44	
45 - 49	
50 - 54	
55 - 59	0
60 - 64	
65 – 69	9
70 - 74	
	2
	6
	1

Position of Me in the interval of classes is number 4, that:

Bb= 54.5
F = 4
fm= 9
i   = 5
n = 31
1/2n   =15.5

So :

$$Me \quad = Bb + i\left(\frac{n/2 - F}{fm}\right)$$

$$= 54.5 + 5\left(\frac{15.5-4}{9}\right)$$

$$= 54.5+ 5(1.27)$$
$$= 54.5+ 6.35$$
$$= 60.85$$

7. Modus

Interval

o	Class	k
	40 - 44	
	45 - 49	
	50 - 54	
	55 - 59	0
	60 - 64	
	65 – 69	9
	70 - 74	
		2
		6
		1

$M_o = L + \dfrac{d_1}{d_1 + d_2} \, i$

$L \quad = \; 54.5$

$d_1 \quad = \; 5$

$d_2 \quad = \; 6$

$i \quad = 5$

$M_o \quad = 54.5 + \dfrac{5}{5+6} \, 5$

$= 54.5 + 0.45(5)$

$= 54.5 + 2.25$

$= 56.75$

Appendix 22

HOMOGENEITY TEST (POST TEST)

1. EXPERIMENT CLASS

N	Xi	Xi^2
O		
1	(	4
	5	225
2	(	4
	5	225
3	′	4
	0	900
4	′	4
	0	900
5	′	4
	0	900
6	′	4
	0	900
7	′	5
	5	625

8	′	5
	5	625
9	′	5
	5	625
1	′	5
0	5	625
1	:	6
1	0	400
1	:	6
2	0	400
1	:	6
3	0	400
1	:	6
4	0	400
1	:	6
5	0	400
1	:	6
6	0	400
1	:	6
7	0	400
1	:	6

8	0	400
1	:	6
9	0	400
2	:	7
0	5	225
2	:	7
1	5	225
2	:	7
2	5	225
2		8
3	0	100
2		8
4	0	100
2		8
5	0	100
2		8
6	0	100
2		9
7	5	025
2		9
8	5	025

2	9	9
9	5	025
3	9	9
0	5	025
3	9	9
1	5	025
	2	2
	520	07350

$n = 31$

$\sum xi = 2520$

$\sum_{xi} 2 = 207350$

So:

$$S^2 = \frac{n\Sigma xi^2 - (\Sigma xi)}{n(n-1)}$$

$$= \frac{31(207350) - (2520)^2}{31(31-1)}$$

$$= \frac{6427850 - 6350400}{31(30)}$$

$$= \frac{77450}{930}$$

$$= 83.27$$

2. **CONTROL CLASS**

	N	Xi	Xi^2

O

1	،	1
	0	600
2	،	1
	0	600
3	،	2
	5	025
4	،	2
	5	025
5	،	2
	5	025
6	،	2
	5	025
7	:	2
	0	500
8	:	2
	0	500
9	:	2
	0	500
1 0	: 0	2 500
1	:	3

1	5	025
1	:	3
2	5	025
1	:	3
3	5	025
1	:	3
4	5	025
1	:	3
5	5	025
1	:	3
6	5	025
1	:	3
7	5	025
1	:	3
8	5	025
1	:	3
9	5	025
2	(	3
0	0	600
2	(	3
1	0	600

2	(	3
2	0	600
2	(	4
3	5	225
2	(	4
4	5	225
2	(	4
5	5	225
2	(	4
6	5	225
2	'	4
7	0	900
2	'	4
8	0	900
2	'	4
9	0	900
3	'	4
0	0	900
3	'	4
1	0	900
		1

$$745 \qquad 00625$$

$n \quad = 31$

$\sum xi = 1745$

$\sum_{xi} 2 = 100625$

So:

$$S^{2} = \frac{n\Sigma xi^{2} - (\Sigma xi)}{n(n-1)}$$

$$= \frac{31(100625) - (1745)^{2}}{31(31-1)}$$

$$= \frac{3119375 - 3045025}{31(30)}$$

$$= \frac{74350}{930}$$

$$= 79.94$$

The Formula was used to test hypothesis was:

4. VIII-1 and VIII-2 :

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

So:

$$F = \frac{83.27}{79.94}$$

$$= 1.04$$

After doing the calculation, researcher found that $F_{count} = 1.04$ with α 5 % and dk = 31 from the distribution list F, researcher found that $F_{table} = 2.042$, cause $F_{count} < F_{table}$ (1.04< 2.042). So, there is no difference the variant between the VIII-1 class and VIII-2 class. It means that the variant is homogenous.

Appendix 23

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:

$$t = \frac{\overline{X}_1 - \overline{X}_2}{\sqrt[5]{\frac{1}{n_1} + \frac{1}{n_2}}} \quad \text{with } S = \sqrt{\frac{(n_1 - 1)S_1^2 + (n_2 - 2)S_2^2}{n_1 + n_2 - 2}}$$

So:

$$S = \sqrt{\frac{(31-1)\,83.27 + (31-2)69.94}{31+31-2}}$$

$$= \sqrt{\frac{30\,(83.27) + 29\,(69.94)}{60}}$$

$$= \sqrt{\frac{2498.1 + 2028.26}{60}}$$

$$= \sqrt{\frac{4526.36}{60}}$$

$$= \sqrt{75.43}$$

$$= 8.68$$

So:

$$t = \frac{\overline{X}_1 - \overline{X}_2}{\sqrt[5]{\frac{1}{n_1} + \frac{1}{n_2}}}$$

$$t = \frac{63.25 - 62.95}{8.68\sqrt{\frac{1}{31} + \frac{1}{31}}}$$

$$= \frac{0.3}{8.68\sqrt{0.032 + 0.032}}$$

$$= \frac{0.3}{8.68\,(0.064)}$$

$$= \frac{0.3}{0.55}$$

$= 0.54$

Based on researcher calculation result of the homogeneity test of the both averages, researcher found that $t_{count} = 0.54$ with opportunity $(1 - \alpha) = 1 - 5\% = 95\%$ and $dk = n_1 + n_2 - 2 = 31 + 31 - 2 = 60$, reseracher found that $t_{table} = 2.000$, cause $t_{count} < t_{table}(0.54 < 2.000)$. So, H_a 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 24

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:

$$t = \frac{\overline{X}_1 - \overline{X}_2}{\sqrt[5]{\frac{1}{n_1} + \frac{1}{n_2}}} \quad \text{with } S = \sqrt{\frac{(n_1 - 1)S_1^2 + (n_2 - 2)S_2^2}{n_1 + n_2 - 2}}$$

So:

$$S = \sqrt{\frac{(31-1)83.27 + (31-2)79.94}{31+31-2}}$$

$$= \sqrt{\frac{30\,(83.27) + 29\,(79.94)}{60}}$$

$$= \sqrt{\frac{2498.1 + 2318.26}{60}}$$

$$= \sqrt{\frac{4816.36}{60}}$$

$$= \sqrt{80.27}$$

$$= 8.95$$

So:

$$t = \frac{\overline{X}_1 - \overline{X}_2}{\sqrt[s]{\frac{1}{n_1} + \frac{1}{n_2}}}$$

$$t = \frac{83.75 - 58.25}{8.95\sqrt{\frac{1}{31} + \frac{1}{31}}}$$

$$= \frac{25.5}{8.95\sqrt{0,032 + 0.032}}$$

$$= \frac{25.5}{8.95\,(0.064)}$$

$$= \frac{25.5}{0,57}$$
$$= 44.73$$

Based on researcher calculation result of the homogeneity test of the both averages, researcher found that t_{count}= 44.73 with opportunity $(1-\alpha) = 1 - 5\% = 95\%$ and dk $= n_1 + n_2$ -2 $= 31+ 31 - 2 = 60$, reseracher found that $t_{table} = 2.000$, cause t_{count}> t_{table}(44.73> 2.000). So, H_a was 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 25

Chi-Square Table

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

APPENDIX 26

Z-Table

Z	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
-3.9	0.00005	0.00005	0.00004	0.00004	0.00004	0.00004	0.00004	0.00004	0.00003	0.00003
-3.8	0.00007	0.00007	0.00007	0.00006	0.00006	0.00006	0.00006	0.00005	0.00005	0.00005
-3.7	0.00011	0.00010	0.00010	0.00010	0.00009	0.00009	0.00008	0.00008	0.00008	0.00008
-3.6	0.00016	0.00015	0.00015	0.00014	0.00014	0.00013	0.00013	0.00012	0.00012	0.00011
-3.5	0.00023	0.00022	0.00022	0.00021	0.00020	0.00019	0.00019	0.00018	0.00017	0.00017
-3.4	0.00034	0.00032	0.00031	0.00030	0.00029	0.00028	0.00027	0.00026	0.00025	0.00024
-3.3	0.00048	0.00047	0.00045	0.00043	0.00042	0.00040	0.00039	0.00038	0.00036	0.00035
-3.2	0.00069	0.00066	0.00064	0.00062	0.00060	0.00058	0.00056	0.00054	0.00052	0.00050
-3.1	0.00097	0.00094	0.00090	0.00087	0.00084	0.00082	0.00079	0.00076	0.00074	0.00071
-3.0	0.00135	0.00131	0.00126	0.00122	0.00118	0.00114	0.00111	0.00107	0.00104	0.00100
-2.9	0.00187	0.00181	0.00175	0.00169	0.00164	0.00159	0.00154	0.00149	0.00144	0.00139
-2.8	0.00256	0.00248	0.00240	0.00233	0.00226	0.00219	0.00212	0.00205	0.00199	0.00193
-2.7	0.00347	0.00336	0.00326	0.00317	0.00307	0.00298	0.00289	0.00280	0.00272	0.00264
-2.	0.00466	0.00453	0.00440	0.00427	0.00415	0.00402	0.00391	0.00379	0.03680	0.00357

z	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
-2.5	0.00621	0.00604	0.00587	0.00570	0.00554	0.00539	0.00523	0.00508	0.00494	0.00480
-2.4	0.00820	0.00798	0.00776	0.00755	0.00734	0.00714	0.00695	0.00676	0.00657	0.00639
-2.3	0.01072	0.01044	0.01017	0.00990	0.00964	0.00939	0.00914	0.00889	0.00866	0.00842
-2.2	0.01390	0.01355	0.01321	0.01287	0.01255	0.01222	0.01191	0.01160	0.01130	0.01101
-2.1	0.01786	0.01743	0.01700	0.01659	0.01618	0.01578	0.01539	0.01500	0.01463	0.01426
-2.0	0.02275	0.02222	0.02169	0.02118	0.02068	0.02018	0.01970	0.01923	0.01876	0.01831
-1.9	0.02872	0.02807	0.02743	0.02680	0.02619	0.02559	0.02500	0.02442	0.02385	0.02330
-1.8	0.03593	0.03515	0.03438	0.03362	0.03288	0.03216	0.03144	0.03074	0.03005	0.02938
-1.7	0.04457	0.04363	0.04272	0.04182	0.04093	0.04006	0.03920	0.03836	0.03754	0.03673
-1.6	0.05480	0.05370	0.05262	0.05155	0.05050	0.04947	0.04846	0.04746	0.04648	0.04551
-1.5	0.06681	0.06552	0.06426	0.06301	0.06178	0.06057	0.05938	0.05821	0.05705	0.05592
-1.4	0.08076	0.07927	0.07780	0.07636	0.07493	0.07353	0.07215	0.07078	0.06944	0.06811
-1.3	0.09680	0.09510	0.09342	0.09176	0.09012	0.08851	0.08691	0.08534	0.08379	0.08226
-1.2	0.11507	0.11314	0.11123	0.10935	0.10749	0.10565	0.10383	0.10204	0.10027	0.09853

z	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
-1.1	0.13567	0.13350	0.13136	0.12924	0.12714	0.12507	0.12302	0.12100	0.11900	0.11702
-1.0	0.15866	0.15625	0.15386	0.15151	0.14917	0.14686	0.14457	0.14231	0.14007	0.13786
-0.9	0.18406	0.18141	0.17879	0.17619	0.17361	0.17106	0.16853	0.16602	0.16354	0.16109
-0.8	0.21186	0.20897	0.20611	0.20327	0.20045	0.19766	0.19489	0.19215	0.18943	0.18673
-0.7	0.24196	0.23885	0.23576	0.23270	0.22965	0.22663	0.22363	0.22065	0.21770	0.21476
-0.6	0.27425	0.27093	0.26763	0.26435	0.26109	0.25785	0.25463	0.25143	0.24825	0.24510
-0.5	0.30854	0.30503	0.30153	0.29806	0.29460	0.29116	0.28774	0.28434	0.28096	0.27760
-0.4	0.34458	0.34090	0.33724	0.33360	0.32997	0.32636	0.32276	0.31918	0.31561	0.31207
-0.3	0.38209	0.37828	0.37448	0.37070	0.36693	0.36317	0.35942	0.35569	0.35197	0.34827
-0.2	0.42074	0.41683	0.41294	0.40905	0.40517	0.40129	0.39743	0.39358	0.38974	0.38591
-0.1	0.46017	0.45620	0.45224	0.44828	0.44433	0.44038	0.43644	0.43251	0.42858	0.42465
-0.0	0.50000	0.49601	0.49202	0.48803	0.48405	0.48006	0.47608	0.47210	0.46812	0.46414

Z-Table

z	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.	0.000	0.004	0.0080	0.012	0.016	0.0199	0.0239	0.027	0.031	0.0359

0	0	0			0	0			9	9	
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	0.2088	0.2123	0.2157	0.2190	0.2224
0.6	0.2257	0.2291	0.2324	0.2357	0.2389	0.2422	0.2454	0.2486	0.2517	0.2549
0.7	0.2580	0.2611	0.2642	0.2673	0.2704	0.2734	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	0.3461	0.3485	0.3508	0.3531	0.3554	0.3577	0.3599	0.3621
1.1	0.3643	0.3665	0.3686	0.3708	0.3729	0.3749	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	0.4357	0.4370	0.4382	0.4394	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.	0.455	0.456	0.4573	0.458	0.459	0.4599	0.4608	0.461	0.462	0.4633

7	4	4		2	1			6	5	
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
2.8	0.4974	0.4975	0.4976	0.4977	0.4977	0.4978	0.4979	0.4979	0.4980	0.4981
2.9	0.4981	0.4982	0.4982	0.4983	0.4984	0.4984	0.4985	0.4985	0.4986	0.4986
3.0	0.4987	0.4987	0.4987	0.4988	0.4988	0.4989	0.4989	0.4989	0.4990	0.4990
3,1	0,4990	0,4991	0,4991	0.4991	0,4992	0,4992	0,4992	0,4992	0,4993	0,4993
3,2	0,4993	0,4993	0,4994	0,4994	0,4994	0,4994	0,4994	0,4995	0,4995	0,4995
3,3	0,4995	0,4995	0,4995	0,4996	0,4996	0,4996	0,4996	0,4996	0,4997	0,4997

3,4	0,4997	0,4997	0,4997	0,4997	0,4997	0,4997	0,4997	0,4997	0,4997	0,4998
3,5	0,4998	0,4998	0,4998	0,4998	0,4998	0,4998	0,4998	0,4998	0,4998	0,4998
3,6	0,4998	0,4998	0,4999	0,4999	0,4999	0,4999	0,4999	0,4999	0,4999	0,4999
3,7	0,4999	0,4999	0,4999	0,4999	0,4999	0,4999	0,4999	0,4999	0,4999	0,4999
3,8	0,4999	0,4999	0,4999	0,4999	0,4999	0,4999	0,4999	0,4999	0,4999	0,4999
3,9	0,5000	0,5000	0,5000	0,5000	0,5000	0,5000	0,5000	0,5000	0,5000	0,5000

APPENDIX 27
Percentage Points of the t Distribution

			Two Tail Test			
	0,50	0,20	0,10	0,05	0,02	0,01
			One Tail Test			
Dk	0,25	0,10	0, 005	0,025	0,01	0,05
1	1,000	3,078	6,314	12,706	31,821	63,657
2	0,816	1,886	2,920	4,303	6,965	9,925
3	0,765	1,638	2,353	3,182	4,541	5,841
4	0,741	1,533	2,132	2,776	3,747	4,604
5	0,721	1,486	2,015	2,571	3,365	4,032
6	0,718	1,440	1,943	2,447	3,143	3,707
7	0,711	1,415	1,895	2,365	2,998	3,499
8	0,706	1,397	1,860	2,306	2,896	3,355
9	0,703	1,383	1,833	2,262	2,821	3,250
10	0,700	1,372	1,812	2,228	2,764	3,165
11	0,697	1,363	1,796	2,201	2,718	3,106
12	0,695	1,356	1,782	2,178	2,681	3.055
13	0,692	1,350	1,771	2,160	2,650	3.012
14	0,691	1,345	1,761	2,145	2,624	2,977
15	0,690	1,341	1,753	2,132	2,623	2,947
16	0,689	1,337	1,746	2,120	2,583	2,921
17	0,688	1,333	1,743	2,110	2,567	2,898
18	0,688	1,330	1,740	2,101	2,552	2,878
19	0,687	1,328	1,729	2,093	2,539	2,861
20	0,687	1,325	1,725	2,086	2,528	2,845
21	0,686	1,323	1,721	2,080	2,518	2,831
22	0,686	1,321	1,717	2,074	2,508	2,819
23	0,685	1,319	1,714	2,069	2,500	2,807
24	0,685	1,318	1,711	2,064	2,492	2,797
25	0,684	1,316	1,708	2,060	2,485	2,787
26	0,684	1,315	1,706	2,056	2,479	2,779
27	0,684	1,314	1,703	2,052	2,473	2,771
28	0,683	1,313	1,701	2,048	2,467	2,763
29	0,683	1,311	1,699	2,045	2,462	2,756
30	0,683	1,310	1,697	2,042	2,457	2,750
40	0,681	1,303	1,684	2,021	2,423	2,704
60	0,679	1,296	1,671	2,000	2,390	2,660
120	0,677	1,289	1,658	1,980	2,358	2,617
∞	0,674	1,282	1,645	1,960	2,326	2,576

Appendix 28

<center>**PHOTO RESEARCH**</center>

CHAPTER I

INTRODUCTION

A. Background of the Problem

Reading is the most important in studying. The curriculum stated that out of the four skills, listening, speaking, reading, and writing, the main emphasis is on reading skill because it believed that acquisition of reading in a second or foreign language is priority. It is good thing in life because it is a factor of great importance in the individual development and the most important activity in school. It is needed in every level of field of study. Particularly in cases when students have to read English materials for their own special subject. Moreover Allah also orders us to read, as said in Al-Qur'an, surah Al-Alaq verse 1-5 as follow:

اقْرَأْ بِاسْمِ رَبِّكَ الَّذِى خَلَقَ ۝ خَلَقَ الْإِنسَـٰنَ مِنْ ۝ عَلَقٍ اقْرَأْ وَرَبُّكَ الْأَكْرَمُ ۝ الَّذِى عَلَّمَ بِالْقَلَمِ ۝ عَلَّمَ الْإِنسَـٰنَ مَا لَمْ يَعْلَمْ ۝

> The meaning: "(1).Read! In the name of your Lord who has created (all the exists). (2). He has created man from a clot (a piece of thick coagulated blood. (3). Read! And your Lord is the most Generous. (4). who has taught (the writing) by the pen. (5). He has taught men that which He knew not".[1]

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[1]Muhammad Taqi'uddin Al-Hilali.*Translation of the Meaning of the Noble Qur'an in the English Language.*(Madinah: King Fahd Complex for the Printing of the Holy Qur'an. 1404 H), p. 585.

According to surah Al-Alaq verse 1-5, thus verses had described to people how important reading in people life is, until Allah orders human to read. It is caused from reading; students can comprehend something, and all the things in this world, especially their God, The Merciful and creator of the world and all the things on. So, reading is very important, especially for students. The following illustration will present some significance of reading for our life.

The first, Reading is an essential skill for learners of English as a second language. For most of learners, it is the most important skill to be mastered in order to ensure success not only in learning English, but also in learning in any content class where reading in English is required. With strengthened reading skills, learners will make greater progress and development in all areas of learning.

Second, reading is the way to get information from something that was written, obtain information and improve the science and knowledge. Reading is a complex process, in reading readers not only understanding ideas, but also recognizing the relationships and structures among ideas.

The last, reading comprehension can develop capacity of thinking. Reading is an activity or thinking process of cognition. When we are reading, our brain is the important factor. Students who have not high capacity of thinking are very difficult to remember something. So that, reading is a way to develop capacity of thinking and they will be able to connect what they read and what they have read. Besides, it also advanced the brain to acquire way to facilitate the

gathering of information whenever we find difficulties. Such impact on students' brain in turn would develop their ability in thinking and solving their problem in the real world.

Based on the illustration above, reading makes the brain relax, interacts with the feelings and thought, obtains information and improving the science or knowledge and also gives pleasure. It is undeniably that reading is necessary for everybody in variety of purpose and needs. In fact, the writer experiences in practice teaching at one of junior high school in MTs YPKS Padangsidimpuan However, reading is problematic here. The fact is revealed in the following illustration.

First, most of the students without know what they have read. For instance, teacher gave a text to students and then asked them to read it in order to build their comprehension and showed the inference of what they have read. As a result, they did not do what they supposed to do. Most of them failed in understanding the text. It occurs when the teacher gave some questions based on the text, they answer diverge to the questions[2].

Second, Based on the information from one of the English teacher in MTs YPKS Padangsidimpuan reveals the average of students' reading achievement of grade VIII is 70. Whereas, standard of minimum completeness of mastery learning

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[2]Interview with Mr Martua Dalimunthe, English Teacher at grade VIII MTs YPKS Padangsidimpuan, (Padangsidimpuan: MTs YPKS Padangsidimpuan), Thursday 10 April 2014.

for junior high school in MTs YPKS of grade VIII is 78.[3] In brief, students' reading comprehension achievement did not fulfill the expectation. It was also found based on the research observation and information from the writers interviewed from students and teacher that the reading achievement of student is low.

The last, the students have poor vocabulary mastery.[4] The vocabulary as one of the elements of language is important of study, because without enough vocabulary mastery, the ability to reading comprehension cannot be established. And they were also lack of motivation and attention about the important of reading, so make them lazy to read and not try to understanding the text in reading activities

Besides that, they were seldom to use reading strategy in reading process because the strategy which they use in classroom just read and read. The students and teacher read word by word, sentence by sentence and paragraph by paragraph. They read and translate the text together without take of reading strategies. So the students did not interest to read because they felt boring and difficult so they cannot comprehend the text.

Accordingly, the problems above need to be solved in order to avoid flaws in students as product of educations. There are many strategies that can solve

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[3]Interview with Miss Deli Warni, English Teacher at grade VIII MTs YPKS Padangsidimpuan, (Padangsidimpuan: MTs YPKS Padangsidimpuan), Thursday 10 April 2014.

[4] Interview with Anisa Maulidarahmi, student at grade VIII MTs YPKS Padangsidimpuan, (Padangsidimpuan: MTs YPKS Padangsidimpuan), Thursday 10 April 2014.

the students' ability in reading comprehension, such as, skimming, scanning, and K-W-L strategy. These strategies theoretically judged to be good to apply in comprehending text through reading.

Skimming and scanning is the strategies to find or to locate specific information without reading everything. By using this strategies, help the students to understand about meaning and main ideas in the text. K-W-L strategy is that used to activate students' prior knowledge, to identify what students want to learn, confirm what they have learned, and categorize their information to then create a summary of what they learned.

From the alternative strategies above, the writer chooses to employ K-W-L strategy. At least three reasons are available as background of the choice that is consideration of students learning materials, characteristic of the students and appropriateness of K-W-L strategy as compared with the other two strategies. Below the writer reveals the reason.

First, it was found that student's learning materials are textbooks which contain kinds of text. Naturally, text consists of some kinds like, descriptive, narrative, procedure, and other. The researcher focuses in descriptive text. The K-W-L activity can be use to structure a whole lesson. It ask the students to think of what they already know about the topic of the lesson, raise question about it, and fine answer to those question.

Second, the age level of the students is 'in between' which close to maturation. Human in this age is theoretically able to acquire abstract concepts

such as principles, steps, terms and so on. Besides, they also can be used for individual, small group, and large group instruction. There is significant evidence that when learners tap into previous knowledge and pose individual questions, they are more likely to become engaged in their learning and more apt to internalize what they learn.[5] The teacher can use K-W-L strategy to help the students more understand about descriptive text. K-W-L strategy also flexibility allows for individual, paired or collaborative group work.

The last, compared what the topic the lesson, K-W-L is a set of well organized steps to be followed by students to attain reading ability. It is composed of three columned maps. The first column represents what the student knows about the topic. The second represents what the student wants to know in the text, the third represents what the student has learned after having read the text.

From the explanation above, the writer was interested in conducting a research entitled: **The Effect of Using K-W-L Strategy on Students' Reading Comprehension at Grade VIII MTs YPKS Padangsidimpuan.**

This research was seeing The Effect of Using K-W-L strategy on Students' Reading Comprehension at Grade VIII MTs YPKS Padangsidimpuan.

B. Identification of the Problems

Based on background above, problems concerning reading skills at MTs YPKS Padangsidimpuan are: 1.) most of the student failed in understanding

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[5] Katherine S McKnight, *the teacher's Big Book of Graphic Organizers* (America: Jossey-bass, 2010), p. 16.

the text, it occur when the teacher gave some questions based on the text, they answered diverge to the questions, 2) Most of the students still get low grade with average 70; meanwhile the standard of English competency in this school is 78, and 3) the students were poor in vocabulary mastery and they lack motivation in reading comprehension. So make them lazy to read and not try to understanding the text in reading activities.

C. Limitation of the Problems

Based on the identification of the problems above, the research was limited to investigate the causal-effect relationship K-W-L Strategy on students' reading comprehension in descriptive text, at grade VIII MTs YPKS Padangsidimpuan.

D. Definition of Operational Variable

1. K-W-L Strategy: a graphic organizer used to activate students' prior knowledge, to identify what students want to learn, confirm what they have learned, and categorize their information to then create a summary of what they learned

2. Reading comprehension is interaction between thought and language and bases evaluation of success in comprehension on the extent the reader's reconstructed message agrees with the writer's intended massage.

E. Formulation of the Problems

The formulation of the problem was "is there the effect of using K-W-L (Know, Want, Learn) Strategy on Students' Reading Comprehension at Grade VIII MTs YPKS Padangsidimpuan?"

F. Purpose of the Research

Based on formulation of the problem above the purpose of the research was to find out the effect of using K-W-L (Know, Want, Learn) strategy on students' reading comprehension at grade VIII MTs YPKS Padangsidimpuan.

G. Significances of The Research

This research is expected to be useful at least in three domains, they are for the science of education, for headmaster and for future researchers. The following illustration describes the significance for these parties. First, this research will give contribution and enrich the science of language education in general and specifically to the field of teaching reading skill. This study incompletes the unresearched fields and empower the same researches conducted in the past. Finally, this research can be used by the future researchers as reference and standing point for studying the other subjects in the field of language teaching. By reading this research, they will be able to identify other subjects to investigate which is this continuity of this research.

H. Outline of the Thesis

The systematic of this research is divided in to five chapters. Each chapter consists of some sub chapters with detail as follow:

Chapter I discussed of Introduction; consisted of background of the problem, identification of the problem, limitation of the problem, formulation of the problem, purpose of the research, definition operational variables, and significances of the research.

Chapter II contained about theoretical description with some sub theory about K-W-L (Know, Want, Learn) strategy, reading comprehension, related findings, conceptual framework and hypothesis.

Chapter III was about methodology of the research that consisted of place and schedule of the research, research design, population and sample, the instrument of collecting the data, technique of collecting the data and technique of data analysis.

Chapter IV was the result of the research; data analyzing that consist of description of the data, discussion of the research and threats of the research.

Chapter V was about the conclusion and suggestion.

CHAPTER II

THEORETICAL DESCRIPTION

A. Theoretical Description

1. K-W-L (Know, Want, Learn)

a. Background of K-W-L

K-W-L stands for what the student know, what the student want to learn, and what the student have learn. It is argued that K-W-L is an instructional reading strategy designed for instructors to help learners learn from nonfiction text in any content area.[1] The K-W-L strategy has been used as an instructional reading strategy. As a reading strategy, it helps new teachers engage students from the beginning of a reading lesson by activating prior knowledge.

According to Sasson, K-W-L also helps teachers keep students interested as they think about what they want to know and what they have learned. Accessing prior knowledge and engaging learners' interest before beginning a reading activity can improve learners' ability to make associations, enhance understanding, and increase comprehension.[2]

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[1] Zhang Fengzuan "The integration of the Know–Want –Learn (KWL) Strategy into English Language Teaching for Non English Major", Journal *linguistics (Bimonthly),* vol. 33. No.4.august 2010, p. 78.

[2] Sasson, "Use K-W-L Technique in Reading Lesson: Strategic Thought Process for Engaging Students before They Read*", http://Newteacher Support. Suite 101. Com/Article .cfm.* Accessed on Juni 06, 2014, at 10 pm.

So K-W-L strategy help students become a good reader, make the students' to be active thinkers when they read. In additional K-W-L help the teacher to be more creative in teaching.

b. Definition and Concept of K-W-L

K-W-L (know, want, learn) is a framework that is use to connect a student's prior knowledge to what they are activity learning. The student begins by thinking about what they already know about the topic of study.[3] Then, they think about what they want to know, and finally, they actively learn something new about the topic. Student can do activity independently, with minimal guidance from the teacher, or it can be teacher directed activity.

In addition K-W-L strategy According to Ogle is.[4] Combination with 5W question, the strategy creates an instructional framework where learners list. 1). what is the concept, 2) what I know about, 3) what I want to know, 4) how I fine out, 5) what I have learned. In this sense, KWL function as an affective assessment tool to evaluate the comprehension of the text on learners' part and evaluate the effectiveness of the instructional process on instructor part. Since the first question aims to make the topic or

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[3]Virginia, *Reading Strategies for Content Area Teachers* (Department of Educational 2004), p. 3.

[4] *Ibid,* p. 79.

concept clear, only H (how I find out) is inserted between the K column and L column in table 1. Some people call it the KWHL strategy.

From the explanation above, KWL strategy work an instructional reading strategy. Reading strategy it can helps new teacher engage students from the beginning of a reading lesson by activating a prior knowledge.

It consists of the three-columned map to be drawn on the board. The first column represents what the student knows about the topic by recalling that they know. The second represents what the student wants to know in the text by determining what they want to learn. The third represents what the student has learned after having read the text by identifying what they learn as they read.

c. Principle of K-W-L Strategy

There are some principles of K-W-L, they are:[5]

1) In K-W-L the teacher begin by naming the topic, and then asking students to think of what they already know about it. It helps to have students list their ideas, and share their ideas with a partner before they answer.
2) Create a K-W-L chart on the chalk board or on chart paper.
3) The teacher asks the students to call out what they know about the topic.
4) The teacher asks the students to think of questions they have about the topic. They may begin by reviewing what they know, and finding areas where their knowledge is incomplete.
5) The students should now read the text (or listen to a lecture, or do some other kind of investigation). They are reminded

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[5] Alan Crawford, et.al. *Teaching and Learning Strategies for the Thinking Classroom* (New York: The International Debate Education Association, 2005), p. 23-24.

to look for answer to their questions, and for any new ideas they did not anticipate.

6) The students report the things they learned from the text. First they report answer they found to their question, and then they report any other interesting or important ideas they discovered.

Base on some principle above can be conclude the K-W-L strategy make the student easy to comprehend the text, and then make the students active in learning process.

d. Benefit of K-W-L Strategy

The K-W-L Strategy is one of those teaching and learning strategies used mainly for information texts; it helps students to:[6]

1) Elicit prior knowledge of the topic of the text.
2) Set a purpose for reading.
3) Monitor their comprehension.
4) Assess their comprehension of the text; and expand ideas beyond the text.
5) Increase the retention of reading material and improve students' ability to make connections among different categories of information as well as their enthusiasm for reading nonfiction.
6) K-W-L provides an opportunity for students to expand ideas beyond the text.
7) K-W-L helps them decide what they would like to learn about the subject which gives them the self motivation to read and make up their own questions.
8) K-W-L helps with self-monitoring of comprehension because it allows the students to identify what they understood.
9) K-W-L gives an opportunity for students to expand on their ideas and formulate new ones.
10) K-W-L allows student to identify known information about a given subject.

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[6] Ogle, "K-W-L: A teaching Model that Develops Active Reading of Expository Text", *http: Indiana. Edu*. Accessed on Juni 06, 2014, Retrieved on 10 pm.

11) K-W-L helps students keep interested as they think about what they want to know and what they have learned. It assists the students to build meaning from what they read and helps them examine their progress toward their goals.

e. Procedure of K-W-L Strategy

There are procedures of K-W-L strategy[7].

1) Chose a subject of study.
2) Create a table with three columns and two rows- one row for the heading and one larger one in which to write. Label the first column with a K for "what I know" the second with a W for "what I want to know" and the third with an L for "what I learned".
3) Brainstorm ideas that the students think they know about the topic. Write those ideas under the K column.
4) Next study the topic, the students can read a chapter conduct research, or participate in any other active learning strategy. The students then discuss and write down what they learned in the L column.[8]

Base on the explanation above researcher conclude K-W-L strategy activates students prior knowledge of the text or topic to be studied. By asking students what they already know, students are thinking about prior experiences or knowledge about the topic. And also using K-W-L strategy allows students to expand their ideas beyond the text used in the classroom. By being aware of students interests, the teacher has the ability to create project and assignments that the students will enjoy. And

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[7] D. M. Ogle, "*A Teaching model that develops active reading of expository text*", (1986), p. 564-570.

then K-W-L strategy is tool that can be use to drive instruction as well as guide student learning.

f. Implementation of K-W-L Strategy

The implementations of K-W-L strategy are[9]:

1) The students' write down anything they can think of that they know about the topic in the first column.
2) The students' predict categories of information they will probably find out about when they read the topic. Categories will probably be base on groups within their list of "what I know" but could be extended.
3) The questions are recorded in the second column.
4) The teacher may need to add to the question so that gaps in knowledge can be addressed.
5) The readers preview the whole selection, they read in manageable bits, perhaps, a paragraph or two, after each bit, they discuss what they read and record what they learned in the third column.
6) Also may also write further questions in the second column that occur to them from their reading.
7) After reading the whole selection readers review what they learned by indicating in which category (predicted earlier) the information belongs and by highlighting unanswered questions which may become the direction for further reading.

Base on the explanation above can be conclude K-W-L strategy make the students to be active thinkers when they read, and then K-W-L strategy have the teacher to be more creative in teaching.

2. Conventional Strategy

Conventional strategy is the strategy or the way that usually used by the teachers to teach the text to students.[10] According to Hudson that

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[9] Miller & Player, *Secondary Literary Across Curricula* (Quean Bryan District Office, 1998), p. 92.

conventional strategy is the strategy used by the teachers based on mutual agreement in a school.[11] In addition, it uses the traditional way in teaching and learning process. The researcher concluded that conventional strategy is the way that is used by the teachers in teaching a material based on the agreement of the teacher at school.

Based on the explanation above, the researcher concludes that the procedure used by the English teachers at MTs YPKS Padangsidimpuan, are as follows:

a. Explain the subject matter

b. Identify the difficult words

c. Ordering the student translate at home

d. Answering the question

3. Reading Comprehension

a. Definition and Concept of Reading Comprehension

1) Reading

Basically, reading is one of the kinds of skill in mastering English language and reading is not an isolated process. "Reading is the process that is done and used by the readers to get the

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[10]JhonDeriden. *Conventional Strategy (http://www.britannia.com/EBchecked/topic/421797/n nuclear-strategy/52993/conventional-strategy),* retrieved on July 17, 2014 at 08.00 p.m.

[11]Hudson. *The meaning of Conventional Strategy* (http://www.conventional-strategy/topic/ 54372-strategy), retrieved on January 17, 2014 at 08.00 p.m.

information".[12]"Reading is an essential skill for learners of English as a second language".[13] Both of opinions mean that reading is the process to get the information from the written describing.

Reading is not just saying the words, but reading also is a meaning getting process. According to McWhotter that "reading is a complex process;[14] it involves much more than adding word meanings together. Reading involves not only understanding ideas, but also recognizing the relationships and structures among ideas".

Furthermore reading is a fluent process of readers combining information from text and their own background knowledge to build meaning.[15] The goal of reading is comprehension. The reader background knowledge integrates with the text to create the meaning. The text, the reader, fluency, and strategies combined together define the act of reading.

So, reading is an activity of meaning getting process, in reading the readers must be able to combining their own background knowledge and information from text to build meaning and readers also must be understand ideas, recognizing the relationships and structures among ideas. Because the goal of reading is comprehension, so readers

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[12] Henry Guntur Tarigan, *Membaca Sebagai Keterampilan Membaca* (Bandung: Angkasa, 2008), p. 7.
[13] David Nunan, *Practical English Language Teaching* (New York: Graw Hill, 2003), p. 81.
[14] Kathleen T. McWhort, *Efficient and Flexible Reading* (New York: Harper Collins Publisher, 1992), p.165.
[15] *Op Cit ;* p. 68

must be able to remember and understand about the text. Readers also must be able to get the information from what they read.

2) **Reading Comprehension**

Reading comprehension is the ability to understanding information presented in written form. Reading comprehension is mental process in which the readers try to understand the meaning in the text by interpreting what have been read in order to find the new idea that given by the writers. According to Mayer,[16] "Reading comprehension is techniques for improving students in extracting useful knowledge from the text". Then reading comprehension is:[17] interaction between thought and language and bases evaluation of success in comprehension on the extent the reader's reconstructed message agrees with the writer's intended massage.

From the explanation above, researcher concluded that reading comprehension is interaction between thought to understanding information presented in written form. And then reading comprehension is the techniques that use student to extracting useful knowledge from the text.

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[16]Mayer, *Learning and instruction* (New Jersey: person education, 2003) , p. 34.
[17]Wayne Otto, et. at. *How to Teach Reading* (USA: Addison-Wesley Publishing Company, 1979), p, 151.

Stated by Sylvia Linan, et al. reading comprehension includes the following:[18]

a) Applying one's knowledge and experiences to the text,
b) Setting goals for reading, and ensuring that they are aligned with the text.
c) Using strategies and skills to construct meaning during and after   reading.
d) Adapting strategies that match the reader's text and goals,
e) Recognizing the author's purpose,
f) Distinguishing between facts and opinions, and drawing logical conclusions.

The teacher's role during reading comprehension instruction is to ensure that students participate actively prior to reading, have the strategies and skills to use when reading, and try to make sense of the text by understanding the author's intention and bringing their own experiences to bear on the text.

3) Kinds of reading

There are two kinds of reading comprehension.

a) Silent reading

According to Oxford dictionary "Silent is condition of not speaking and a sound track".[19] David Nunan said, silent reading generally focus in the classroom should be on getting the

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[18] Sylvia Linan, et al., *Research-Based Method of Reading Instruction for English Language Learners Grade K-4* (Virginia USA: Association for Supervision and Curriculum Development (ASCD), 2007), p. 115.

[19] Horn, *Oxford advanced learners dictionary* (New York: oxford university press, 1995), p. 887.

meaning from print when comparison is the goal of reading.[20] So reading silently improves students' understanding because it helps them concentrate on what they are reading, rather than the pronunciation of individual words.

b) Loud Reading

According to H. Douglas Brown, "loud reading is the test – taker separate letters, word, and or short sentences and read them loud, one by one, in the presence of an administrator since the easement is reading comprehension, any recognize sable oral approximation of the target response is considered correct". [21]

Furthermore, stated as Guntur Taringan "Loud reading is activity to read, using voice with the correct intonation, so the listener and reader can get information like thinking, feeling, attitude, or writer's experience.[22]

So loud reading is read orally or with voice by using correct pronunciation to express the content of the material or text, and then the reader can get the information or the authors' messages from the text.

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[20] David Nunan, *Op. Cit.,* p. 69.
[21] H. Douglas Brown, *Language Assessment Principles and Classroom Practice* (USA: Longman, 2004), p. 190.
[22] Henry Guntur Tarigan, *Op. Cit.,* p. 22.

4) Types of Reading

Beside have the kinds reading material have the types; several types of reading are identified[23]:

a) Perceptive. Perceptive reading tasks involve attending to the components of larger stretches of discourse letters, word, punctuation, and other graphemes symbols.

b) Selective. This category is largely an artifact of assessment formats. In order to as certain one's reading recognition of lexical, grammatical, or discourse features of language within a very short stretch of language certain.

c) Interactive. Include among interactive reading types are stretches of language of several paragraph to one page or more in which the reader must, in a psycholinguistic sense, interact with the text.

d) Extensive. Extensive reading is applies to text of more than a page, up to and including professional articles, essays, technical reports, short stories, and book.

5) Model of Reading Comprehension

Researchers have pondered the effects of the model and explained what happens when people read. Past researches in the reading process have come up separately with three models of reading such as bottom-up, top-down and interactive.

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[23] Douglas brown, *ibid* p. 189

(1) Bottom-up. Models typically consist of lower level reading processes. Student start with the fundamental basics of later and sound recognition, which in turn allows for morpheme recognition followed by word recognition, building up to the identification of grammatical structures, sentences, and longer texts. Letters, letter clusters, word, phrases, sentences, longer texts, and finally meaning is the order in achieving comprehension.

(2) Top down models. On the other hand, begin with the idea that comprehension resides in the reader. The reader use background knowledge, makes prediction, and searches the text confirm or reject the predictions that are made. A passage can thus be understood even if all on the individual word are not understood. Within a top down approach to reading the teacher should focus on meaning generating activities rather on mastery of word recognition.

(3) Interactive models. Interactive models are accepted as the most comprehensive description of the reading process. This third type combines elements of both bottom-up models assuming that a pattern is synthesized based on information provided simultaneously from several knowledge sources.[24]

This is the graphic representation of an interactive approach to reading. The reader combines elements of both bottom-up and top-down models of reading to reach comprehension.[25]

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[24] David Nunan, *Op. Cit,* p. 70-71.
[25] *Ibid.,* P. 72.

Reader's background knowledge

Comprehension
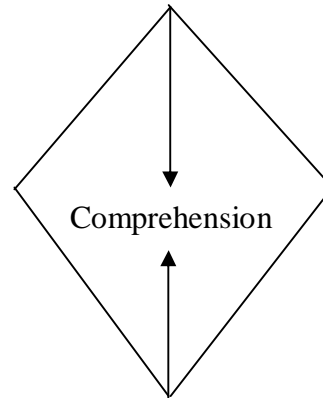
Individual letters and sounds

According to the explanation above the bottom-up model discusses that the person who reads construct the text from the minimum unit to the maximum unit, such as; letters to words, words to phrase, and phrase to sentences. and the top-down models, the reader use background knowledge, makes predictions, and searches the text to confirm or reject the predictions that are made, a text will be convey an enormous deal of awareness, expectations, assumptions by the readers and its given a basic knowledge to acquire the vocabulary. Interactive models are accepted as the most comprehensive description of the reading process, the type combines element of bottom-up and top-down, the two models or processes are taking place at the same time. After reading, the readers must be able to remember the information of the text that they have read.

6) Level of Reading Comprehension

There are levels of reading comprehension in helping the students become interactive reader.

a) Literal Comprehension

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

b) Interpretative Reading

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

(a) Inferring the main ideas of passages in which the main ideas are not directly stated
(b) Inferring cause and effect relationship when they are no directly stated
(c) Inferring relevant adverb
(d) Inferring relevant word
(e) Inferring committed word
(f) Detecting mood
(g) Detecting the author's purpose in writing
(h) Drawing conclusion.

c) Critical Reading

The levels of critical reading comprehension are: the students can analyze, evaluate, and personally reaching to information presented in a passage. And also there are two abilities,

namely personally reaching to information in a passage indicating its meaning to the reader an also analyzing and evaluating the quality of written information in terms of some standard. It can be concluded that critical reading includes the ability in:[26]

    (1) Distinguishing between the fact and opinion
    (2) Evaluating the accuracy and the appropriateness of the information given in the text
    (3) Recognizing persuasive statement

7) The Goals of Reading

The main goals of reading are to get and search information include content and meaning of the text.[27] Here some goals of reading such as:

a)   Reading is to find the topic of the text.

b)   Reading is for identifying important information.

c)   Reading is for main ideas.

d)   Reading is for finding the specific information.

e)   Reading is for underlining the important information.

f)   Reading is to classify the difficult word.

g)   Reading is to evaluate.

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[26]M. Friend and W. Bursuck, *Including students with special need; A practical guide for classroom teachers* (Boston: Allyn and bacon, 2006), p. 177.

[27] Henri Guntur Tarigan, *Membaca Sebagai Sebuah Keterampilan Berbahasa* (Bandung: Angkasa, 2005) , p. 6.

In conclusion, the goals of reading are to ease the reader in read the text, to find the topic of the text and how to evaluate of the text.

4. **Descriptive Text**

   a. **Definition and Concept of Descriptive Text**

   According, Sanggam Siahaan, descriptive is a written English text in which the writer describes an object. In this text, the object can be a concrete or abstract object. It can be a person, or an animal, or a tree, or a house, or camping. It can be about any topic.

   This is Contains two components; identification and description. Writing that presents ideas by providing defiles about characteristic of people, place and things and the object can be a concrete or abstract.[28] Definitely a descriptive text consists of a group of sentences and composed of a group sentence expressing one central idea.

   Moreover, stated by Charles Miguel Cobb,[29] said that descriptive is kind of writing that tries to put a picture in the reader's mind. It tells how something looks or sounds or tastes or smells or feels.

   Another, According to Sri Dewi Astuti descriptive text is that describes the characteristics of a particular thing, a place, or a person.[30] A

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   [28]Sanggam Siahaan and kisno shinoda, *Generic Text structure* (Yogyakarta: Graha Ilmu, 2008), p. 89.
   [29]Charles Miguel Cobb, *Process and Pattern* (Belmount California: Wadswarth Publishing Co, 1985), p. 35.
   [30]Sri Dewi Astuti, *Comparing and Contrasting Descriptive and Report Text* (Bekasi: AldhiAksaraAbadi Indonesia), p. 1.

descriptive text usually started by a clear topic sentence which identifies a thing place, or a person. It is about whom, what and where.

So, the researcher concludes that descriptive text is a kind of text in genre that gives description about things, living thing or non- living thing. Descriptive text describes much information about an object, where the information is about the parts, qualities, or characteristics of the object that is described.

b. The Generic Structures of Descriptive Text

Descriptive is text containing two components identification and description by which a writer describes a person, or an animal. The identification is to identify the object to describe. The description describes parts, qualities, and characteristics: of the parts of the object the function of description is to describe a particular person, place, or thing.[31] Then, text can be divided into descriptive text, procedure text, narrative text, recount text, and report text. However descriptive text means to descript/ describes things, people, place specifically.

Lowes and Clark also explained that text structure of descriptive text consist of:[32]

1. Identification is writing the name or something, place, pictured, city, and family with brief description.

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[31]Sanggam Siahaan, *Op. Cit.,* p. 89.
[32] Lewis and Clark, "*Descriptive Text*" (http//www.campusschool,edullofti/Primary. Accessed on Saturday, June 07th 2014 at 12 pm).

2. Description is described parts, qualities and characteristics of thing.

The following paragraph is example of Descriptive text

My Pet

I have a pet. It is a dog and I call it Brownie. Brownie is my favorite name. Brownie is the name of the delicious cake.

Brownie is a Chinese breed. It is small, fluffy, and cute. It has got thick brown fur. When I could it, the fur feels soft. Brownie does not like bones. Every day it eats soft food like steamed rice, fish or bred. Every morning I give her milk and bread. When I am at school, brownie plays with my cat. They get along well, and never fight maybe because a brownie does not bark a lot. It treats the other animals in our house.[33]

Based on example above, the structure descriptive texts are explained more in the table below:

Table I

Example of descriptive text

Title	My Pet
Identification	I have a pet. It is a dog and I call it Brownie. Brownie is my favorite name, because Brownie is the name of the delicious cake.
Description	Brownie is a Chinese breed. It is small, fluffy, and cute. It has thick brown fur. When I cuddle it, the fur feels soft. Brownie does not like bones. Every day it eats soft food like steamed rice, fish or bread. Every morning I give her milk and bread. When I am at school, Brownie plays with my cat. They got along well, and never fight

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[33] Otong Setiawan Djuharie, *Genre* (Bandung: Yrama Widia, 2007), p. 28.

	maybe because Brownie does not bark a lot. It treats the other animals in our house.

c. **The Language Features of Descriptive Text.**

Descriptive are a text containing two components; identification and description by which a writer describes a person or an animal or a tree, or a house, or camping at this topic. Here is the further explanation; the identification is to identify the object to describe, and the description describes parts, qualities and characteristics of the parts of the object.[34]

Sanggam Siahaan and Kisno Shinoda describes the language features or dominant grammatical aspect of descriptive text are focuses on specific participants, uses of attributive and identifies processes, frequent use of epithets and classifiers in nominal groups, and uses of simple present tense.[35] So, the significant language feature in descriptive text is that description text uses simple present tense.

B. **Review Related Finding**

There have been many researches done regard to this research and the research found some related research such us; First, Ummi batubara, her thesis is "The Effect of using Semantic Mapping Strategy on Students Reading Comprehension at SMKN 1 Batangtoru" the result is the students' achievement

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[34]Sanggam Siahaan and KisnoShinoda, *Op. Cit.*, p. 89.
[35]SanggamSiahaan and KisnoShinoda, *Loc. Cit.*

in reading comprehension before learning by semantic mapping at SMK Negeri 1 Batangtoru is bad. It can be seen from the mean score of pre test in experimental class was 43.78, and the students reading comprehension after learning semantic mapping technique increased quickly and categorized excellent. It can be seen from the mean score of experimental class was (82.19). While, the result of t-test was gotten, t_{count} was bigger than t_{table} were $t_{count} = 5.06$ and $t_{table} = 3.46$, cause $t_{count} > t_{table}$ (5.06 > 3.46). It means that semantic mapping gave significant effect to students' reading comprehension at grade XI in SMK Negeri 1 Batangtoru.[36]

The second Paujiah, her thesis is "The Effect of Reciprocal Teaching Strategy to Students' Reading Comprehension at Grade VII SMP Negeri 5 Padangsidimpuan". The concluding of her research, there is the effect of reciprocal teaching strategy to reading comprehension, where the mean score after using reciprocal teaching was 74.96 and mean score before using reciprocal teaching was 73.65, with t_0 is higher than t_t (2.18 >1.67). So, the implication of reciprocal strategy is better than conventional strategy.[37]

The last, Evi Dewi Sartika Siregar, her thesis is "The Effect of Skimming Technique on the XI Grade Students' Achievement in Reading Comprehension at SMK Negeri 1 Sipirok in 2009-2010 Academic Year". The conclusion are: the students comprehension before using skimming technique is good, because it can

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[36] Ummi Batubara, The Effect of using Semantic Mapping strategy on student reading comprehension at SMKN 1 Batangtoru in 2013/2014 Academic Year, (Padangsidimpuan IAIN, 2014), p. 56.

[37]Paujiah "The Effect of Reciprocal Teaching on students' reading comprehension at grade VII SMP Negeri 5 Padangsidimpuan" (Padangsidimpuan, 2013), p. 59.

be seen average score of the students before treatment is the good (72.66), and the students comprehension after used skimming technique is good, because it can be seen through the average score of the students before treatment is more than good (75,16).[38]

In summary, from the description above, the researcher concludes that strategy or methods can increase the students' reading comprehension. So, the researcher hopes that K-W-L (Know, Want, Learn) strategy can increase the student's reading comprehension and this research will complete and contribute previous findings. Moreover, the researcher wants to research about "The Effect of using K-W-L Strategy on Student's Reading Comprehension at Grade VIII MTs YPKS Padangsidimpuan.

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[38]Evi Sartika Dewi Siregar, The Effect of Skimming Technique on the XI Grade students' Achievement in Reading Comprehension at SMKN 1 Sipirok in 2009/2010 Academic Year, (Padangsidimpuan: UMTS, 2010)

C. Conceptual Framework

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┌─────────────────────────────────────────────┐
│  1. Student failed in understanding the text. │
│  2. Students have low motivation on reading.  │
│  3. Students have poor vocabulary.            │
└─────────────────────────────────────────────┘
                      ⬇

┌─────────────────────────────────────────────┐
│     K-W-L to solve the problem of student's   │
│           reading comprehension               │
└─────────────────────────────────────────────┘
                      ⬇

              ┌──────────────┐
              │   Pre-Test   │
              └──────────────┘

┌───────────────────────┐      ┌───────────────────────┐
│ Experimental Class with│      │   Control Class with   │
│       **K-W-L**        │      │ **Conventional Method**│
└───────────────────────┘      └───────────────────────┘

              ┌──────────────┐
              │  Post- Test  │
              └──────────────┘

          **H1**           **H0**
```
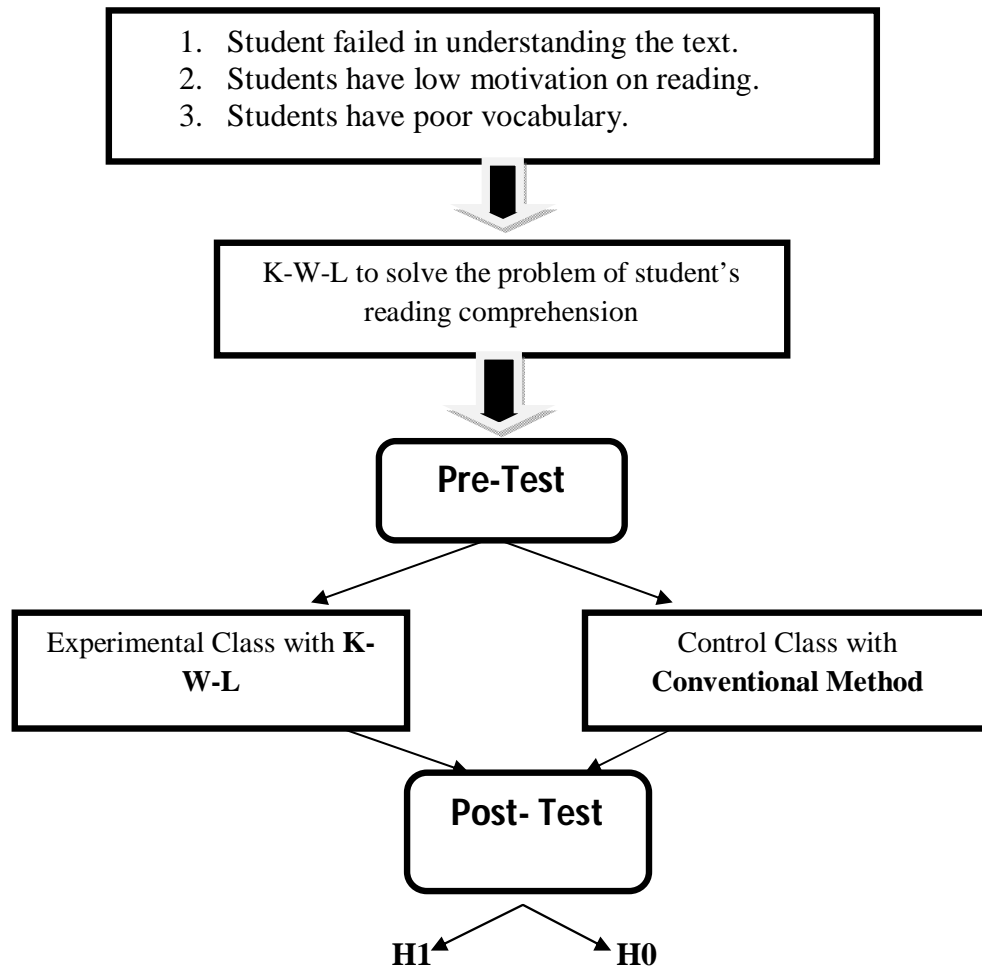
The researcher found the problem that students failed in understanding the text, low motivation on reading, and students have poor vocabulary. Therefore, in this research uses K-W-L to solve the problem. Before doing K-W-L, researcher will give Pre-test to Control and Experimental Class. After that, researcher will teach Reading Comprehension with K-W-L to Experimental class, and the English Teacher with conventional method to

Control class. Next, both are two classes are given Post-test, Experimental and Control class. Finally, the researcher will compare the reading result of Pre-test and Post- test between Experimental and Control class.

D. Hypotheses

Based on formulation of the problem above, the hypothesis of the research are: Hypotheses are determined based on the formulation. It is the tentative answer for the research until get the right results of the research.[39] So, the hypothesis of this research was "there is the effect of K-W-L (Know, Want, and Learn) strategy on students' reading comprehension at grade VIII MTs YPKS Padangsidimpuan".

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[39]S. Nasution, *Metode Research* (Jakarta: Bumi Aksara, 2003), p. 38.

CHAPTER III

RESEARCH METHODOLOGY

A. Place and Schedule of the Research

The location of this research is at MTs YPKS Padangsidimpuan. It is located at Jl. Sutan Soripada Mulia Padangsidimpuan of North Sumatera. The subject of this research is the second grade of students in MTs YPKS Padangsidimpuan. The schedule of this research has been done from April 2014 up to January 2015.

B. Research Design

The researcher used experimental method in doing this research; this research is designed by quantitative research. In this research, researcher uses sample and hypothesis. According, L.R. Gay "Experimental research is the only type of research that can test hypotheses to established cause and effect".[1] An experimental research is guided by at least one hypothesis that states an expected causal relationship between two variables. Experimental research method is the most productive method, because if the researcher is conducted well, it can be answered the hypotheses relevant with cause and effect relationship.

Based on the explanation of the characteristic above research is aimed to empirically examine the causal-effect relationship between K-W-L treatments with students' reading comprehension. Experimental classroom implement K-W-

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[1] L. R. Gay and Peter Airasian, *Education Research* (USA: Merrill, 2000), p. 367.

L, and the control classroom implement conventional method. Students' reading comprehension will be got before and after the learning process. The first, both of classes are given Pre-test to know the ability and score of students.

The design is presented as follows:

Tabel II

RESEARCH DESIGN

Class		Treatment	
Experimental Class	Pre-test	Teaching Descriptive Text by using K-W-L (Know,, What, Learn) strategy	Post test
Control Class	Pre-test	Teaching Descriptive Text by using Conventional Strategy	Post test

After the process of teaching reading, both of the classes are given post test. The employed as basis to calculate whether the different of reading comprehension with and without K-W-L strategy is significant or not.

C. Population and sample

1. Population

According to Suharsimi Arikunto, "population is a set or collection of all elements possessing one or more attributes of interest".[2] This research will be implemented in MTs YPKS Padangsidimpuan. the population is Grade

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[2]Suharsimi Arikunto, *Prosedur Penelitian Suatu Pendekatan Praktik*Jakarta: Rineka Cipta, 1993), p. 3.

VIII Students at MTs YPKS Padangsidimpuan in 2014/2015 academic year. There are six classes and these classes consist of 185 students, presented as follows:

Table III

THE POPULATION OF THE GRADE VIII MTs YPKS PADANGSIDIMPUANACADEMIC YEAR 2014/2015

No	Classroom	Male	Female	Amount
1.	VIII.1	12	19	31
2.	VIII.2	13	21	31
3.	VIII.3	24	11	35
4.	VIII.4	12	16	28
5.	VIII.5	13	15	29
6.	VIII.6	18	13	31
Total Number				**185**

Source: School Administration Data of MTs YPKS Padangsidimpuan

2. Sample

Sample is the part of population. According to L.R Gay & Peter Airasian described "sample comprises the individuals, items, or events selected from a large group referred to as a population".[3] The sample was taken randomly. The researcher chose two classes. So the researcher chose VIII.1 consist of 31 students and VIII.2 consist of 31 students. So, the total samples of the research are 62 students. They are experimental class and control class. So that, one class is an experimental class and the other is

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[3]*Op Cit.,* p. 121.

control class. To determine appropriate sample of population is tested with Normality and Homogeneity test.

a) Normality Test

The function of normality test is to know whether the data of research is normal or not. In this research, the researcher uses normality test with using Chi-Quadrate formula, as follow:

$$x^2 = \sum \left(\frac{f_o - f_h}{f_h} \right)$$

Were:

$x^2 =$ Chi-Quadrate

$f_o =$ Frequency is gotten from the sample/result of observation (questioner)

$f_h =$ Frequency is gotten from the sample as image from frequency is hoped from the population[4]

To calculate the result of Chi- Quadrate, it was used significant level 5% (0,05) and degree of freedom as big as total of frequency is lessened 3 (dk= k-3). If result $x^2_{count} < x^2_{table}$. So, it can be conclude that data is distributed normal. Based on the calculation of normality test in pre- test, the researcher found that there are two classes that is classified normal with dk=5-3=2 = 5.991. They are VIII-1(1.48<5.991), VIII-2

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[4]Mardalis, *Metode Penelitian: Suatu Pendekatan Proposal* (Jakarta: Bumi Aksara, 2003), p. 85.

(2.68<5.991), and there is a class that was not normal with dk= 5-3= 5.991, (VIII-3 = 12.2 >5.991).

b) Homogeneity Test

Homogeneity test was used to know whether control class and experimental class have the same variant or not. If the both of classes are same, it is can be called homogeneous. To test it, researcher used formula as follow: [5]

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

Where:

n_1= Total of the data that bigger variant

n_2= Total of the data that smaller variant

Hypothesis was rejected if $F \leq F_{\frac{1}{2}a(n_1-1)(1=n_2-1)}$ While if $F_{count} > F_{table}$ hypothesis was accepted. It determined with significant level 5% (0, 05) and dk numerator is $(n_1 - 1)$ while dk denominator is $(n_2 - 1)$. So, dk = (31-1) and (31-1) = 30 = 2.042. Based on the calculation of homogeneity test in pre-test, the researcher found that all of the classes are classified homogenous. (See appendix 19).

Based on explanation above, the population is the six classes of the second year students, two classes are selected randomly in order to be an experimental or control class. After comparing the normality and homogeneity test of the third

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[5]*Ibid.*, p. 250.

classes in pre-test, the researcher found that all the classes are homogenous and the normal classes are VIII-1, VIII-2, and VIII-3 is not normal. So, the researcher concluded that VIII-1 and VIII-2 are the sample of this research. The researcher chose these classes because they have similar competence based on their result in pre-test. In this research, the experimental class is VIII-1 and control class is VIII-2. The researcher chose VIII-1 consists of 31 students and VIII-2 consists of 31 students. Therefore, total of samples are 62 students.

Table IV:
Sample of the Research

Experimental Class	Control Class	Total
VIII-1 = 31	VIII-2 = 31	62

D. Instrumentation of Collecting Data

A good instrument certifies the validity of the data. The researcher uses instrument of validity and reliability for the taking the valid data. The research uses test as instrumentation. Test is some of question or view or other tool uses for measure skill, knowledge, intelligence and ability.

The researcher collected by giving the multiple-choice test. Cryil says, "A multiple-choice questions (MCQs) is the test item usually set out in such a way that the candidate is required to select the answer from a number of given options, only one of which is correct."[6]

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[6]Agus Irianto, *Statistik Konsep Dasardan Aplikasinya* (Padang: P2PLTK, 2003), p. 276.

In this research, the test consisted of 40 questions, where 20 for pre-test, and 20 for post-test by choosing an answer from the 4 options to prepare the students' reading comprehension. This test gave to both class, experiment and control class. To find out the scores of the students' answer, the researcher gave 5 score for each item. Thus, the maximum score of test was 100.

Table V
THE INDICATORS READING COMPREHENSION TEST
PRE – TEST

NO	Indicators	Items	Number of items	Score	Total Score
1	Able to find the topic of the text	4	4, 7, 12, 17	5	20
2	Able to identify main idea of the text	4	1, 8, 11, 20	5	20
3	Able to identify information needed from the text	4	6, 10, 15, 16	5	20
4	Able to give conclusion to the text	4	5, 14, 18, 19	5	20
5	Able to understand the vocabulary of the text	4	2, 3, 9, 13	5	20
	TOTAL	20			100

Table VI
THE INDICATOR READING COMPREHENSION TEST
POST TEST

NO	Indicators	Items	Number of items	Score	Total Score
1	Able to find the topic of the text	4	6, 8, 12, 18	5	20
2	Able to identify main idea of the text	4	5, 10, 14, 19	5	20

3	Able to identify information needed from the text	4	1, 2, 13, 15,	5	20
4	Able to give conclusions to the text	4	3, 9, 11, 17	5	20
5	Able to understand the vocabulary of the text	4	4, 7, 16, 20	5	20
	TOTAL	20			100

E. Validity and reliability instrument

1. Validity Test

Anas Sudijono states that Validity is a characteristic of the good test. To get the validity of an achievement test can be used two ways:[7]

a) Totality of the test validity

b) Item Validity

In this research, the researcher uses item validity to get the validity of instrumentation. Item validity is a part of the test as a totality to measure the test by items. Where, the test consists of 50 multiple-choice tests that will be divided in to two groups. They are 25 for pre-test and 25 for post-test.

To know the validity of the each question will be refer to list *r* biserial with *r* $_t$ *in 5% significant*: 0.381 and 1% significant: 0.487. So, if *r* $_{account}$>*r* $_{table}$the test is classified valid.

So, to get the validity of the test, the formula of *r point biserial* can be used as follow:

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[7]Anas Sudijono.*PengantarEvaluasiPendidikan* (Jakarta: PT Raja GrafindoPersada, 1996), p. 163.

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

Where:

r_{pbi} : coefficient item validity

M_p : mean score of the total sore

SD_t: Standard Deviation of the total score

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

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

From the result of the analysis fifty instrument test, where twenty five for pre-test and twenty five for post-test. Researcher concluded that for pre-test only twenty are categorized valid and five are categorized invalid. (See the appendix 8). Then, for the post-test also twenty were categorized valid, and five categorized invalid. The calculation of how to get it can be seen in the appendix 11. So, researcher conducted 20 items for each group (Appendix3 and 4). So, researcher conducted twenty items for each class.

2. **Reliability Test**

The instrument is said reliable when the instrument believable to use as a tool of collecting data because the instrument is good. In this research, the writer uses standardized test with compare the item of the test with supposed to measure. So, the test is supposed reliable.[8]

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[8]Anas Sudijono, *Pengantar Statistik Pendidikan* (Jakarta: Raja Grafindo Persada, 2008), p. 254

Testing of instrument reliability could be done with the technique of

KR.20 (Kurder Richardson) formula, as follow:

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

In Which:

R_{11} : Reliability of the Instrument

N   : Total of Question

St^2 : Variants Total

P   : <u>Proporsi Subject who is right Answer(1)</u>
                    N

Q   : <u>Proporsi Subject who is Wrong Answer (0)</u>
                    N

Reliability is a good character of the test that refers to the consistency

of the measurement. The test is reliableif $r_{count} > r_{table}$ by using formulation

KR-20 with r_{table} 0.70. (See the appendix 14).

F. The Technique of Collecting Data

In collecting data, the research conducts twice of test for these classes.

They are pre-test, treatment, and post-test. This test concluded some steps; they

are:

1. Pre Test

The pre test is conducted to find out the homogeneity of the sample.

The function of the pre-test is to find the mean scores of the experimental

class and control class before the researcher gave treatment. In this case, the

researcher hoped that the whole students' reading skill is same, or if there is a difference between those classes, the difference is hopefully not significant.

2. Treatment

The experimental group and the control group gives same material, which consist of communication aspects that take by the teacher in different ways. The experimental class is give treatment, it take by using the K-W-L strategy and the control class only by reading text.

3. Post Test

After giving the treatment, the researcher conducts a post-test. This post-test is the final test in the research, especially measuring the treatment, whether is significant or not. After conducting the post-test, the writer analyzed the data.

G. Technique of Data Analysis

In this research, the researcher uses the technique of data analysis as follow:

1. Requirement test

a) Normality test

The researcher uses normality test with using *Chi-Quadrate* formula, as follow:

$$x^2 = \sum \left(\frac{f_o - f_h}{f_h} \right)$$

Where:

$x^2=$ Chi-Quadrate

$f_o=$ Frequency is gotten from the sample/result of observation (questioner).

$f_h=$ Frequency is gotten from the sample as image from frequency is hoped from the population

To calculate the result of Chi- Quadrate, it is used in significant level 5% (0.05) = 5.991 and degree of freedom as big as total of frequency is lessened 3 (dk= k-3).

b) Homogeneity Test

To test the data whether is homogenous or not, the researcher uses Harley test, as follow:[9]

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

Hypotheses is accepted if $F_{(count)} \leq F_{(table)}$

Hypotheses is rejected if $F_{(count)} \geq F_{(table)}$

Hypothesis is rejected if $F \leq F\frac{1}{2}$ a (n_1-1) $(1= n_2-1)$, while if F $_{count}$ >F$_{table}$, hypothesis is accepted. It determined with significant level 5% (0.05) =2.042, and dk numerator was (n_1-1), while dk denominator is (n_2-1).

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[9]AgusIrianto, *Op. Cit.,*p.276.

2. Hypothesis Test

Based on the hypothesis, the analysis of the data is done to find out the ability of two groups that have been divided into experiment class and control class. Hypothesis is the answering result of the research. So, data Analysis is used to test the hypothesis by using *t-test*.

$H_a: \mu_1 > \mu_2$

$H_o : \mu_1 \leq \mu_2$

If $H_a: \mu_1 > \mu_2$, It means the result of students' reading comprehension by using K-W-L (Know, Want, Learn) strategy at grade VIII MTs YPKS Padangsidimpuan is better than conventional strategy. But, if the $H_0: \mu_1 \leq \mu_2$, it means the result of students' reading comprehension by using K-W-L (Know, Want, Learn) strategy at grade VIII MTs YPKS Padangsidimpuan is not better than conventional strategy. To test the hypothesis, researcher uses the formula as follow:

$$t = \frac{\overline{X}_1 - \overline{X}_2}{s\sqrt{\dfrac{1}{n_1} + \dfrac{1}{n_2}}}$$

Where:

$\overline{x}_1$ = Mean of experimental class sample

$\overline{x}_2$ = Mean of control class sample

n_1 = Total of experimental class sample

n$_2$ = Total of control class sample[10]

And the formula of standard deviation is:

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

Where:

s   = Variant

$s_1^{\,2}$ = Variant of experimental class

$s_2^{\,2}$ = Variant of control class[11]

To test the criteria of hypothesis isif H$_a$ is accepted by – $t_{table} < t_{count} < t_{table}$ .By opportunity $\left(1-\dfrac{1}{2}\alpha\right)$ and dk = (n$_1$ + n$_2$ – 2), 31+31=62= 1.67, and H$_o$ is rejected if there is *t* to the other result

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[10]Sugiyono.*Statistika untuk Penelitian* (Bandung: Alfabeta, 2011), p. 138-139.

CHAPTER IV

DATA ANALYSIS

In this chapter, researcher collected the data and gave the test about reading comprehension to the sample. The sample of this research is class VIII-1 for experimental class and class VIII-2 for control class. The test was divided into two aspect, they are pre-test and post-test. Pre-test was done before conducted the treatment, and post-test was done after conducted the treatment. Researcher applied quantitative analysis by used the formulation of *t-test*. It is done to know the effect of K-W-L (Know, What, Learn) strategy on students' reading comprehension. Then, Researcher will describe the result based on the data that has been researched as follow.

A. Description of Data

1. Description of Data Before Using K-W-L (Know, What, Learn) Strategy

a. Score of Pre-Test Experimental Class

Tabel IX
The score of Experimental Class in Pre-Test

Total	1900
Highest score	75
Lowest score	45
Mean	63.25
Median	65.85
Modus	61.75
Range	30
Interval	5
Standart deviation	8.95
Varians	83.27

Based on the table above the total score of experiment class in pre-test was 1900, mean was 63.25 standart deviation was 8.95, varians was 83.27, median was 65.85, range was 35,modus was 61.75, interval was 5. The researcher got the highest score was 75 and the lowest score was 45 . Next, the calculation of how to get it could be seen in the appendix 18. Then, the computed of the frequency distribution of the students' score of experiment class could be applied into table frequency distribution as follow:

Table X
Frequency Distribution of Students' Score

No	Interval	Frequency	Percentages
1	45-49	2	6.45%
2	50-54	4	12.9%
3	55-59	4	12.9%
4	60-64	9	29.03%
5	65-69	3	9.67%
6	70-74	4	12.9%
7	75-79	5	16.12%
	$i = 5$	31	100%

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

Figure 1. Histogram Result Score of the Students' Reading Comprehension in experimental class in Pre-test
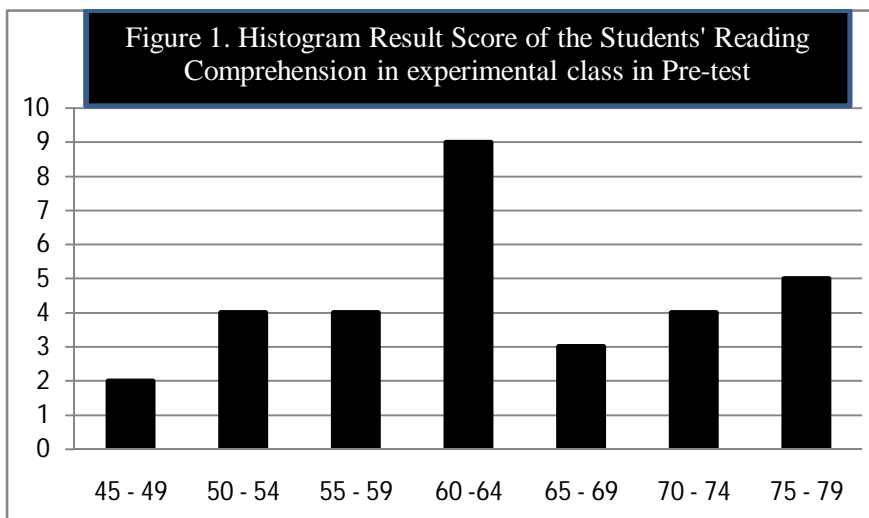
b. Score of Pre Test Control Class

Tabel XI
The Score of Control Class in PreTest

Total	1900
Highest score	75
Lowest score	45
Mean	62.95
Median	65.85
Modus	61.75
Range	30
Interval	5
Standart deviation	8.65
Varians	69.94

Based on the table above the total score of control class in pre-test was 1900, mean was 62.95, median was 66.85, modus was 61.75, range was 30, interval was 5, standart deviation was 8.65, varians was 69.94. The researcher got the highest score was 75, and the lowest score was 45.(See appendix 18). Then, the computed of the frequency distribution of the students' score of experiment class could be applied into table frequency distribution as follow:

Table XII
Frequency Distribution of Students' Score

No	Interval Class	F	Percentages
1	45 - 49	2	6.45%
2	50 - 54	4	12.9%
3	55 - 59	4	12.9%
4	60 - 64	9	29.03%
5	65 - 69	4	12.9%
6	70 - 74	4	12.9%
7	75 - 79	4	12.9%
	$i = 5$	31	

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

Figure 3. Histogram Score Result of the Students' Reading Comprehension in Control Class in Pre-Test
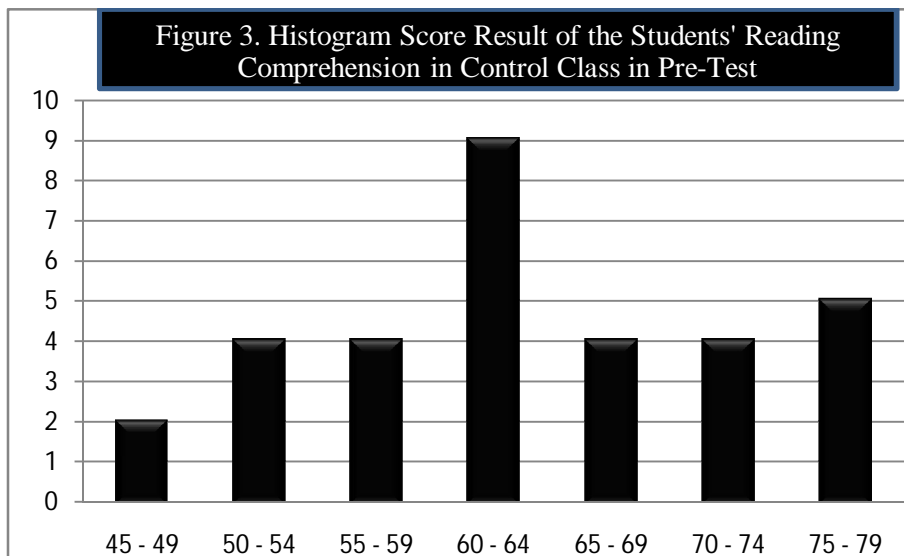
2. Description of Data After Using K-W-L (Know, Want, Learn) strategy

a. Score Post-Test of Experimental Class

Tabel XIII
Score of Experimental Class in Post-Test

Total	2520
Highest score	95
Lowest score	65
Mean	83.75
Median	85.85
Mode	81.75
Range	30
Interval	5
Standart deviation	8.95
Varians	83.27

Based on the table above the total score of experiment class in post-test was 2520, mean was 83.75, median was 85.85, mode was 81 .75, range was 30, interval was 5, standart deviation was 8.95, varians was

83.27. The researcher got the highest score was 95 and the lowest score was 65 . Next, the calculation of how to get it could be seen in the appendix 20. Then, the computed of the frequency distribution of the students' score of experiment class could be applied into table frequency distribution as follow:

Table XIV
The Frequency Distribution of Students' Score

No	Interval Class	F	Percentages
1	65 – 69	2	6.45%
2	70 – 74	4	12.9%
3	75 – 79	4	12.9%
4	80 – 84	9	29.03%
5	85 – 89	3	9.67%
6	90 – 94	4	12.9%
7	95 – 99	5	16.12%
$i = 5$		31	100%

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

Figure 2. Histogram Score result of the Students' Reading Comprehension by Using K-W-L (Know, Want, Learn) Strategy in Experimental Class in Post-Test
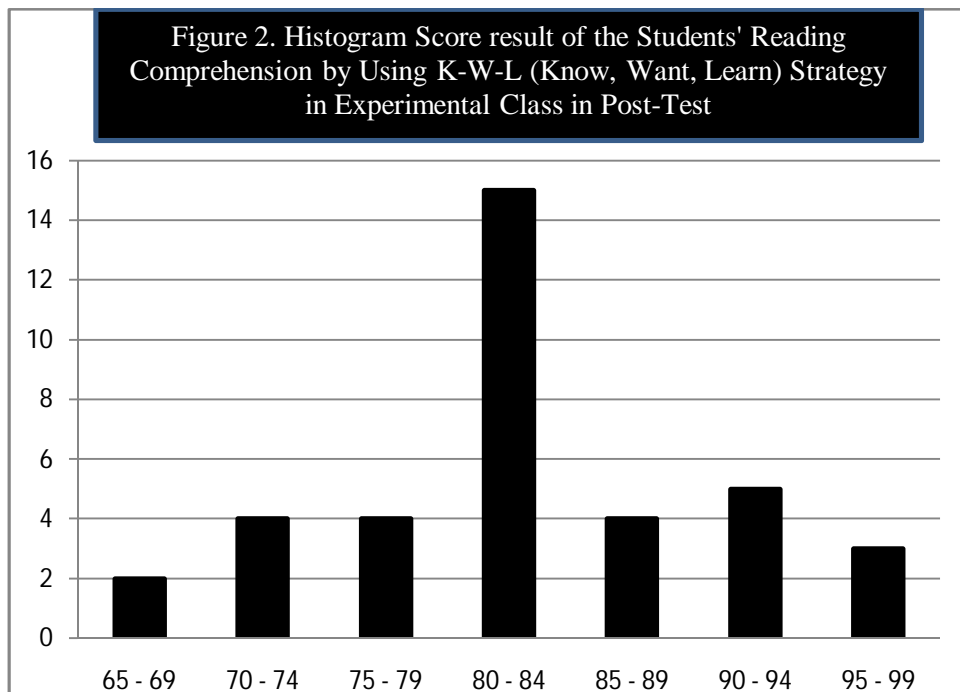
b. **Score of Control Class in Post-Test**

Tabel XV
The Score of Control Class in Post-Test

Total	1745
Highest score	70
Lowest score	40
Mean	58.25
Median	60.85
Modus	56.75
Range	30
Interval	5
Standart deviation	8.95
Varians	79.94

Based on the table above the total score of control class in post-test was 1745 ,mean was 58.25, standart deviation was 8.95, varians was 79.94, median was 60.85, mode was 56.75, range was 30,

interval was 5. The researcher got the highest score was 70 and the lowest 40 score was . Next, the calculation of how to get it could be seen in the appendix 21. Then, the computed of the frequency distribution of the students' score of experiment class could be applied into table frequency distribution as follow:

Table XVI
Frequency Distribution of Students' Score

No	Interval Class	F	Percentages
1	40 – 44	2	6.45%
2	45 – 49	4	12.9%
3	50 – 54	4	12.9%
4	55 – 59	9	29.03%
5	60 – 64	3	9.67%
6	65 – 69	4	12.9%
7	70 – 74	5	16.12%
	$i = 5$	31	100%

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

Figure 4. Histogram Score Result of the Students' Reading Comprehension by Using Conventional Strategy in Control Class Post-test
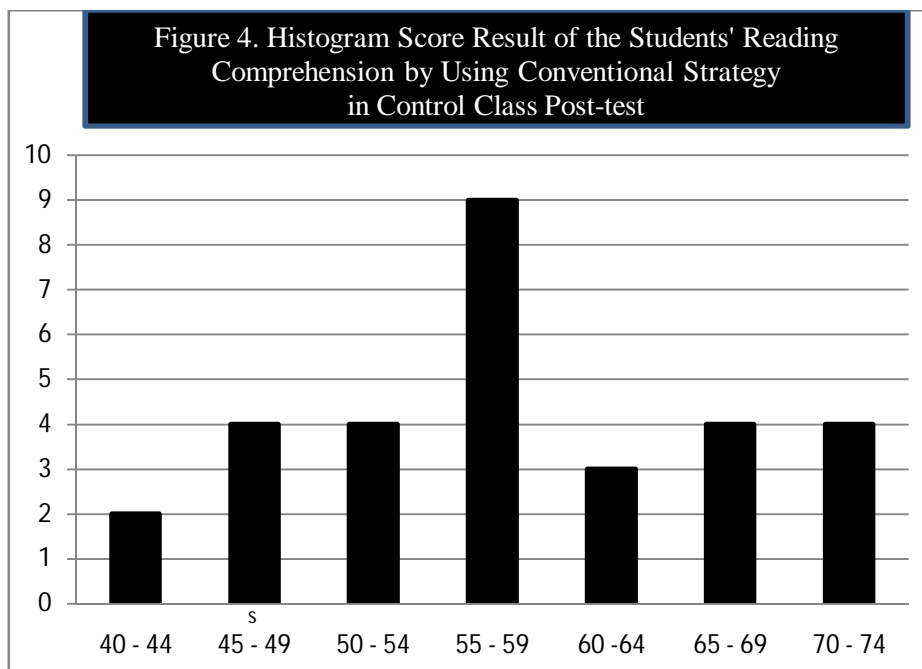
B. Technique of Data Analysis

1. Requirement Test

a. Normality and Homogeneity Pre-Test

1) Normality of Experimental Class and Control Class in Pre-Test

Tabel XVII
Normality and Homogenity in Pre-Test

Class	Normality Test		Homogeneity Test	
	t_{count}	t_{table}	t_{count}	t_{table}
Experiment Class	1.48	5.991	1.19<2.042	
Control Class	2.68	5.991		

Based on the table above researcher calculation, the score of exsperiment class Lo=1.48<Lt=5.991 with n =31 and control class Lo=2.68< Lt=5.991 with n =31, and real level α 0.05. Cause $_{Lo}$< Lt in the both class. So,H$_o$ was accepted. It mean that experiment class and control class were distributed normal. (See appendix 18 and 19).

2) Homogeneity of Experimental Class and Control Class in Pre-test

Then, the coefficient of F $_{count}$ = 1.19 was compared with F table. Where F table was determined at real α =1.48, and the same numerator dk=N-1= 31-1=30 and denominator dk N-1= 31–1= 30 So, by using the list of critical value at F distribution is got F $_{0.05}$= 2.042. It showed that F $_{count}$ (1.19)< F $_{table}$ (2.042). So, it could be concluded

that the variant from the data of the students' Reading Comprehension at MTs YPKS Padangsidimpuan by experimental and control class was homogen. The calculation can be seen on the appendix 19.

b. **Normality and Homogeneity Post Test**

1) Normality of experimental class and control class in Post-test

Tabel XVIII
Normality and homogenity in post-test

Class	Normality Test		Homogeneity Test	
	t_{count}	t_{table}	t_{count}	t_{table}
Experiment Class	1.96	5.991	1.04<2.042	
Control Class	2.0	5.991		

Based on the table aboveresearcher calculation, the score of eksperimental class Lo=1.96< Lt=5.991 with n =31 and control class Lo=2.0< Lt=5.991 with n=31, real level α was 0.05, Cause $_{Lo}$ < Lt in the both class. So,H_a was accepted, it mean that experiment class and control class were distributed normal. The calculation could be seen on the appendix 20, and 21

2) Homogenity of Experimental Class and Control Class in Post-Test

Then, the coefficient of F $_{count}$ =1.04 was compared with F table. Where F table was determined at real α =0.05, and the same numerator dk=N-1= 31-1=30 and denominator dk N-1= 31–1=30 So, by using the list of critical value at F distribution was got F $_{0.05.}$=2.042.

It showed that F_{count} (1.04) < F_{table} (2.042). So, it could be concluded that the variant from the data of the students' ability in Students' Reading Comprehension at MTs YPKS Padangsidimpuan by eksperimental and control class was homogeny. Researcher calculation, it could be seen on the appendix 22.

2. **Hypothesis Test**

The data would be analyzed to prove hypothesis by using formula of T-test. Hypothesis alternative (H_a) of research was "There was the effect of K-W-L (Know, Want, and Learn) strategy on Students' Reading Comprehension. The result of the researcher calculation could be seen as follow:

$$t = \frac{\overline{X}_1 - \overline{X}_2}{s\sqrt{\dfrac{1}{n_1} + \dfrac{1}{n_2}}} \quad \text{with} \quad S = \sqrt{\frac{(n_1 - 1)S_1^2 + (n_2 - 2)S_2^2}{n_1 + n_2 - 2}}$$

So:

$$S = \sqrt{\frac{(31-1)83.27 + (31-2)79.94}{31+31-2}}$$

$$= \sqrt{\frac{30\,(83.27) + 29\,(79.94)}{60}}$$

$$= \sqrt{\frac{2498.1 + 2318.26}{60}}$$

$$= \sqrt{\frac{4816.36}{60}}$$

$$= \sqrt{80.27}$$

$$= 8.95$$

So:

$$t = \frac{\overline{X}_1 - \overline{X}_2}{s\sqrt{\dfrac{1}{n_1} + \dfrac{1}{n_2}}}$$

$$t = \frac{83.75 - 58.25}{8.95\sqrt{\dfrac{1}{31} + \dfrac{1}{31}}}$$

$$= \frac{25.5}{8.95\sqrt{0,032 + 0.032}}$$

$$= \frac{25.5}{8.95\,(0.064)}$$

$$= \frac{25.5}{0,57}$$

$$= 44.73$$

Table XIX
Result of T-test from the Both Averages

Pre-test		Post-test	
t_{count}	t_{table}	t_{count}	t_{table}
1.48	2.042	44.73	2.000

$H_a: \mu_1 > \mu_2$

$H_o: \mu_1 \leq \mu_2$

Where:

$H_a: \mu_1 > \mu_2$ "K-W-L (Know, Want, Learn) strategy is better than conventional strategy on Students' Reading Comprehension."

$H_o: \mu_1 \leq \mu_2$ "K-W-L (Know, Want, Learn) strategy is not better than conventional strategy on Students' Reading Comprehension."

Based on researchercalculation, researcher found that t_{count} 44.73 while t_{table} 2.000. With opportunity (1 - α) = 1-5% = 95% and dt = (n_1 + n_2 – 2) = (31+ 31– 2) = 60, cause t_{count}>t_{table} (44.73>2.000) . It means that hypothesis (H_a) was accepted.So, there is the significant effect of K-W-L (Know, Want, Learn) strategy on Students' Reading Comprehension. It described the mean score of experiment class by using K-W-L (Know, Want, Learn) stategy was 83.75, and mean score of control class in using Conventional strategy was 58.25 So, From the explanation above, the students' Reading Comprehension by using K-W-L (Know, Want, Learn) strategy is better than conventional strategy $(\mu^1> \mu^2)$.The researcher calculation can be seen on the appendix 20 , and 21

C. Discussion

Based on the related findings, the researcher discussed the result of this research and compared with the related findings. First, Ummi batubara her thesis "is The Effect of using Semantic Mapping Strategy on Students Reading Comprehension at SMKN 1 Batangtoru" the result is the students' achievement in reading comprehension before learning by semantic mapping at SMK Negeri 1 Batangtoru is bad. It can be seen from the mean score of pre test in experimental class was 43.78, and the students reading comprehension after learning semantic mapping technique increased quickly and categorized excellent. the result of a research by using Semantic Mapping strategy was found that mean score was

82.19, and the result of t-test was gotten, t_{count} was bigger than t_{table} were $t_{count} = 5.06$ and $t_{table} = 3.46$, cause $t_{count} > t_{table}$ (5.06 > 3.46). It means, there was the effect of using Semantic Mapping strategy on students' reading comprehension.

Second, Paujiah her thesis is "The Effect of Reciprocal Teaching Strategy to Students' Reading Comprehension at Grade VII SMP Negeri 5 Padangsidimpuan". The concluding of her research, there is the effect of reciprocal teaching strategy to reading comprehension, where the mean score after using reciprocal teaching was 74.96 and mean score before using reciprocal teaching was 73.65, with t_0 is higher than t_t (2.18 >1.67). So, the implication of reciprocal strategy is better than conventional strategy.

The third, Evi Dewi Sartika Siregar, her thesis is "The Effect of Skimming Technique on the XI Grade Students' Achievement in Reading Comprehension at SMK Negeri 1 Sipirok in 2009-2010 Academic Year". The conclusion are: the students comprehension before using skimming technique is good, because it can be seen average score of the students before treatment is the good (72.66), and the students comprehension after used skimming technique is good, because it can be seen through the average score of the students before treatment is more than good (75,16).

Then, the research by using K-W-L (Know, Want, Learn) strategy showed the result of mean score in pre test of experimental class was 63.25 and the result of mean score in experimental class was 83.75 and control class was 58.25. It means the result and hypothesis testing showed that K-W-L Strategy had the effect, and hypothesis alternative (H_a) was accepted and hypothesis zero

(H_0) was rejected. It was indicated that the score of experimental class was bigger than control class (83.75>58.25), and also indicated $t_o \Box t_t$ (44.73$\Box$2.000).

Based on the analysis above, the researcher concluded that using K-W-L strategy was better than using semantic mapping strategy with the result 83.75>82.19 and t_{count} was bigger than t_{table} (44.73$\Box$2.000) > (5.06 > 3.46). Then, K-W-L Strategy was better than using reciprocal teaching strategy with the mean score 83.75<74.96 and t_{count} was bigger than t_{table} (44.73$\Box$2.000) $\Box$(2.18 >1.67). Next, K-W-L Strategy was better than Skimming Strategy with the mean score 83.75>75.16 Thus, the researcher concluded that K-W-L Strategy also was an effective and efficient strategy and can improve the students' reading comprehension.

D. Threats of the Research

In this research, the researcher found the threats of this research as follows:

1. There were some students that were noisy while teaching and learning process. So, it can disturb the concentration of the others.

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

Based on the threats above, the researcher tried with all efforts, hard work and with a vengeance as much as possible to do the best in this research.

The researcher can complete this thesis also with the assistance of all parties and consultation with the advisors.

CHAPTER V

CONCLUSION AND SUGGESTION

A. Conclusion

Based on the result of data analysis that had described in the previous chapter, the researcher concluded that there was the effect of using K-W-L (Know, Want, Learn) strategy on Students' Reading Comprehension at grade VIII MTs YPKS Padangsidimpuan So, the hypothesis alternative (H_a)was accepted. It was based on the mean score of experimental class after using K-W-L (Know, Want, Learn) strategy was bigger than control class (83.75>58.25) and proven with t_{count} was higher than t_{table}(44.73> 2.000). The hypothesis zero (H_0) was rejected. Thus, the researcher concluded that K-W-L (Know, Want, and Learn) strategy was an effective and efficient on students' reading comprehension.

B. Suggestion

After finishing this research, the researcher got much information in English teaching and learning process. Therefore, the writer has suggestion to:

1. The Principal of MTs YPKS Padangsidimpuan, to motivate the teacher, especially English teachers to teach as well as possible by maximizing the using of K-W-L (Know, Want, Learn) Strategy in teaching, because through this research, it was significantly proven that this strategy increased the students' reading Comprehension.

2. The English teacher, to increase the students' ability in learning English, especially in increasing the students' ability in reading comprehension. One of the efficient and effective strategy that can increase reading comprehension was through K-W-L (Know, Want, Learn) strategy.

3. Other researcher, the findings of this research were subject matters which can be developed largely and deeply by adding other variables or enlarge the samples.

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