THE EFFECT OF APPLYING STRATEGIC OF THE CONTEXT CLUES TO THE STUDENTS' ACHIEVEMENT READING COMPREHENSION

SKRIPSI

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By

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ABSTRACT

SarifahAinun, " The Effect of Applying Strategic of the Context Cluesto the Students' Achievement Reading Comprehension". Skripsi.English Department, Faculty of Teacher Training and Education – University of Muhammadiyah Sumatera Utara, Medan 2017.

The objective of this research was to find out the effect of using Context Clues Strategic on the students' achievement in reading comprehension to VIII grade students of SMP PAB 8 Sampali Medan. This research used the experimental research method. The population of this research was all the VIII grade students of SMP PAB 8 Sampali Medan 2016/2017 academic year at Jl. PasarHitam No. 69, KecamatanPercutSeituan who consisted of 60 students. This research applied total sampling method. Because this was an experimental research so the sample then was divided into two groups, 30 students in experimental group taught by using Context Clues Strategic and 30 students in control group taught by using lecturing method. The instrument used in this research was multiple choices with 15 questions. The data were analyzed by using t-test formula. The result showed that $t_{observed}$ was $>t_{table}$(11,8> 1, 635) or H_a is accepted and H_0 is rejected. The hypothesis was accepted. It proves that Context Clues Strategic significantly effect to the students' achievement in reading comprehension.

ACKNOWLEDGEMENT

بِسْمِ اللهِ الرَّحْمَنِ الرَّحِيْمِ

Assalamu'alaikumwr.wb

First of all, the researcher would like to express her thanks to Allah SWT, who has given her strength, patience, healthy and chance to finish this study. Second, sholawat and salam to our propet Muhammad SAW who has bought human beings from the darkness into brightness

The aim of writing this study is to fulfill the requirement for the degree of SarjanaPendidikan in English Education Program in the process of completing this study which entitled **The Effect of Applying Strategic of the Context Cluesto the Students' Achievement Reading Comprehension.** The researcher encountered so many difficulties and problem but those did not stop the effort to make better one and it was seemed impossible to be done without helps from the others.

Therefore, the researcher would like to express grateful to her dearest parents Mr. Riswan and Mrs. Farida Hanum for their pray, advice, courage, moral and material supports and help in all the researcher's life, millions word would never be enough to express her gratitude to both parents for encouragements and heart they have given , your love was beyond any words.

10. Her beloved friends in the boarding house, WirandaWulandani, Lili, AndrianiSipayung, Rika Andani, Ningsih, Peggy, Asri, Tutud, Endang, Nia, Mawaddah, Kiki, Dewi, Risma, Wiwik , Syanti, Diana, thanks for all moments.

The researcher realized that his study is still far from being perfect. So, the researcher hopes suggestions and comments from all the readers, especially for the students of English Department who want to do a research. May ALLAH SWT bless all.

Medan,   March 2017

The Researcher

SarifahAinun

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CHAPTER I

INTRODUCTION

A. The Background of the Study

Reading is the one of most important skills in learning a language besides listening, speaking, and writing. Reading thought as a way to draw information from a text and to form an interpretation of that information. Reading is making meaning from print. In teaching reading, the teacher should realize that there are many goals of reading is to develop the students reading skills, so the students can read English text effectively and efficiently. Reading as one of basic communication skills is an active and ongoing process that is effect directly by an individual's interaction with the environment.

Another fact, reading is not as what people think. It is rather difficult for the student the capability to draw and interpret the information appropriately meaning from the passage. Many students failed in reading because they are lack of vocabularies, they still seldom read English text and they are not taught reading well by the teacher. More teachers focus on teaching reading not understanding. They just ask the students to read the text one by one. They feel too busy to read, or they may not enjoy reading. Moreover, many teachers do not employ effectively and efficiently in teaching reading strategies, as the consequence, it seems hard for the students to comprehend the reading text and the students are still difficult to the questions the reading text by themselves.

Based on the researcher's experience in teaching practice (PPL) at VIII grade students of SMP PAB 8 SAMPALI MEDAN of the academic year 2016/2017, on Jl. PasarHitam No.69 Kec.PercutSei Tuan. The researcher found some problems faced by the studentsreading. The students were not able to understand what they had read. They only read the material without knowing what they read. According to Sharzad, A. and Derakhshan, this strategy can help the students easy to understand in reading comprehension. The researcher expected that teaching learning English by using this strategy, it will make the students feel enjoy in learning reading and effective to the students' achievement in reading comprehension. This strategy has many advantages. The students could improve their performance in academic tasks, they not bored in learning reading and they some ideas with their friends, think together, respect the opinion of others, work in group, and they can explain ideas or opinion to others. So, the researcher were interested in conducting this research; " The Effect of Applying Strategic Context Clues to the Students' Achievement Reading Comprehension".

B. The Identification of the Problems

Based on the explanation above, the problems were formulated as follows:

1. The students are not able understand what they have read.

2. The students had less interest of reading text because the text is rather

3. They didn't know and understand the information that they have read.

C. The Scope and Limitation

The scope of the study wasfocused on reading comprehension and the researcher limited in report text by applying strategic of the context clues at eight grade in SMP PAB 8 SAMPALI MEDAN at academic year 2016/2017.

D. The Formulation of the Study

The formulation of the students study were formulated as the following :

"Is there any significance effect of applyingstrategic of the context clues to the students' achievementreading comprehension ?"

E. The Objectives of the Study

Based on the objectivesof the study above, the objectives of the study can be described as follows:

"to find out significant effects of applying strategic of the context clues to the students' achievement reading comprehension".

F. The Significance of the Study

The finding of the study was expected to be useful theoretically and practically:

a. Theoretically

The result of this study is expected to be useful input to English teaching-learning process, especially for teaching reading report text.

b. Practically

The findings of the study is expected to be useful for :

1. For the students, to assist the students to build reading competency. Thus, they are able comprehend the content of the text.

2. For the teachers, to provide the English teacher to plan and conduct a better and interacting teaching learning process, especially in teaching reading.

3. For the researchers, who is interested in conducting the same field of research.

CHAPTER II

REVIEW OF LITERATURE

A. Theoretical Framework

In conducting a research, theories need to explain all the terms which are used in the study to avoid misunderstanding between the researcher and readers. The researcher began to clarify the terms and concepts, so that the researcher and readers had the same perception to them. The theoretical framework is aimed at giving clear concept of the application of this study.

1. Description of Reading

Reading is one of the important skills which have to be learned by the students in order to master English well. Reading is also included into receptive skill besides listening. Receptive skill is the way in which people extract meaning from the discourse they see or hear (Harmer, 2001:199). To achieve the purpose of reading, which is to get general or detail information from the text, the students have comprehend the text in order to understand the information effectively. Gillet and Temple (in Ngadiso, 1998, 2) say, "Comprehension is the understanding new information in light of what we have already known". This thing will make students be more successful in applying and improving everything that had been learned and understood. Reading comprehension is the process of using syntactic, semantic, and rhetorical information found in the

printed texts to reconstruct in the reader's mind, using the knowledge of the world he or she possess (Ngadiso,1998:1).

1.1Types of Reading

Generally reading is derived more from the multiplicity of types of texts than from the variety of overt types of performance. Nevertheless, for considering assessment procedures, according to Brown (2001) several types of reading performance are typically identified, and these will serve as organizers of various assessment tasks.

1.2 Perceptive Reading

In keeping with the set of categories specified for listening comprehension, similar specifications are *offered*here ; except with some differing terminology to capture the uniqueness of reading. Perceptive reading tasks involve attending to the *components* of larger stretches of discourse: letters, words, punctuation. Bottom-up processing is implied.

1.3 Selective Reading

This category is largely an artifact of assessment formats. In order to ascertain one's reading recognition of lexical, grammatical, or discourse features of language within a very short stretch of language certain typical tasks are used: picture-cued tasks, matching, true-false, multiple-choice, *etc.* Stimuli include sentence, brief paragraphs, and simple charts and graphs. Brief responses are

intended as-well. A combination of bottom-up and top-down processing may be used. So, what is selective reading? Selective reading stands for a combination of reading and a research. This is a process of reading purpose. Instead of running through a text that might have no practical and esthetic, value to you, develop a skill that will give you a feeling of improving.

1.4 Interactive Reading

Included among interactive reading types are stretches of language of several paragraphs to one page or more in which the reader must, in a psycholinguistic sense, *interact* with the *text*. That is, reading is a process of negotiating meaning, the reader brings to the text a *set* of schemata for understanding it, and make is the product of the interaction. Typical genres that lend themselves to interactive reading are anecdotes, short narrative and descriptions, excerpts from longer texts, questionnaires, memos, announcements, directions, recipes, and the like. The focus of an interactive task is to identify relevant of moderately short length with the objective of retaining the information that is processed. Top-down processing is typical of such tasks, although some instances of bottom-up performance may be necessary.

1.5 Extensive Reading

Extensive reading, as discussed in this book, applies to texts of more than page, up to and including professional articles, essays, technical reports, short stories, and books. (It should be noted that reading research commonly refers to "

extensive reading" as longer stretches of discourse, such as long articles and books that are usually read outside :t classroom hour. Here that definition is massaged a little in order to encompass any text longer than a page). The purposes of assessment usually are to tap into a learner's global understanding of a text, as opposed to asking test-takers to "zoom in" on small details. Top-down processing is assumed for most extensive tasks.

2. Description of Reading Comprehension

According to Carroll (1977) as we noted earlier, beginning reading instruction should stress decoding but out ignore comprehension. "An emphasis on phonics does not mean the attention to meaning must inevitably decrease. Carroll further points out that reading comprehension also requires language comprehension and cognitive ability (complex reasoning skills) and that there are many more language and reasoning skills that make up reading comprehension than there are decoding skills.

3.Description of Strategy Context Clues

3.1 Strategy

Strategy is a method or plan chosen to bring about a future, such as achievement of a solution to a problem. According to Max McKeown (2011) argues that " strategy is about shaping the future" and is the human attempt to get to "desirable ends with available means". Strategy is the mental and communicative procedures learners use in order to learn and use language.

Underlying every learning task is at least one strategy. However, in most classroom, learners are unaware of the strategies underlying the learning tasks in which they are engage. Strategies are mental and communicative procedures learners use in order to learn and use language. Underlying every learning task is at least one strategy.

3.2 Context Clues Strategy

Strategy context clues is an explicitly taught reading strategy that students use as they read to figure out the meaning of an unknown word, a student uses other words in the text that are usually in the same sentence or nearby sentences that provide clues as to the meaning of the unknown word.

These clues may include synonyms, antonym, definitions or examples. Using these clues, students derive the meaning of the unknown word in a text. Context clues are often taught during literacy blocks or in small-group, guided reading instruction. The teacher explicitly models the strategy using authentic texts or shorter passages. The teacher can then apply this strategy while thinking aloud during read aloud, shared reading or during a reading conference to reinforce the strategy.

3.3 Types of Context Clues

There are at least four kinds of context clues that are quite common

1. **Synonym** is a synonym or word with the same meaning, is used in the sentence.

Examples:

a. Flooded with spotlights – the focus of all attention- the new Miss America began her year-long reign. She was the *cynosure* of all eyes for the evening.

" Cynosure" means "the focus of all attention."

b. The mountain pass was a *tortuous* road, winding and twisting like a snake round the trees of the mountainside.

"Tortuous" means "winding and twisting"

2. **Antonym** is my opponent's argument is fallacious, *misleading-plain wrong*. A word or group of words that has the opposite meaning reveals the meaning of an unknown term.

Examples:

a. When the light brightens, the pupils of the eyes contract; however, when it grows darker they *dilate*.

"Dilate" means the opposite of "contract".

b. The children were as different as day and night. He was a lively conversationalist, but she was reserved and *taciturn*.

" Taciturn" means the opposite of a lively conversationalist."

3. **Explanation** is although some men are loquacious, *others hardly talk at all*. The unknown word is explained within the sentence or in a sentence immediately preceding.

Examples:

a. The archeologist found different *amulets,* such as a rabbit's foot and bags of herb.

b. Paula was suspended from school because of several *infractions* of the rules, including smoking in the bathroom and dressing improperly.

4. **Example** is the patient is so somnolent that she requires medication to help her stay awake for more than a short time. Specific examples are used to define the term.

Examples:

a. Piscatorial creatures, such as flounder , salmon, and trout, live in the coldest parts of the ocean.

   "Piscatorial" obviously refers to fish.

b. Celestial bodies, including the sun, moo, and stars, have fascinated man through the centuries.

   "Celestial" objects are those in the sky or heavens.

3.4 The Procedure of Strategic Context Clues

According to Mark Peninngton, learning and practicing context clue strategies makes sense. Context clue strategies can be internalized with sufficient practice and can be flexibly applied by skillful readers to figure out the meaning of many unknown words without adversely impacting comprehension. The best way to apply context clue strategies is to learn the problem-solving strategies detailed in **FP'S BAG SALE**. When readers come to an unknown word, they apply the

relevant steps of the **FP'S BAG SALE** strategy to get a good clue about the meaning of an unknown word.

Flexibility is key to using context clue strategies. Multiple strategies provide multiple ways of problem-solving. Good readers learn to quickly sort through the options and select the strategy or strategies that works best. They also accept the fact that context clue strategies don't always work and that understanding every single word is not necessary for the purpose of reading—effective meaning-making.

Initially, readers should follow the steps of the **FP'S BAG SALE** context clues approach in order to problem-solve the meanings of unknown words. Then, through teacher modeling and guided practice, students should learn to efficiently "hunt and peck" for clues to meaning by applying the individual steps.

FP'S BAG SALE

a. Finish the sentence. See how the word fits into the whole sentence.

b. Pronounce the word out loud. Sometimes hearing the word will give you a clue to meaning.

c. Syllables–Examine each word part. Word parts can be helpful clues to meaning.

d. Before–Read the sentence before the unknown word. The sentence before can hint at what the word means.

e. After–Read the sentence after the unknown word. The sentence after can define, explain, or provide an example of the word.

f. Grammar–Determine the part of speech. Pay attention to where the word is placed in the sentence, the ending of the word, and its grammatical relationship to other known words for clues to meaning.

g. Synonym–Sometimes an unknown word is defined by the use of a synonym. Synonyms appear in apposition, in which case commas, dashes, or parentheses are used. Example: The wardrobe, or closet, opened the door to a brand new world.

h. Antonym–Sometimes an unknown word is defined by the use of an antonym. Antonym clues will often use Signal Words such as however, not, but, in contrast Example: He signaled a looey, not a right turn.

i. Logic–Your own knowledge about the content and text structure may provide clues to meaning. Logic clues can lead to a logical guess as to the meaning of an unknown word. Example: He petted the canine, and then made her sit up and beg for a bone.

j. Example–When part of a list of examples or if the unknown word itself provides an example, either provides good clues to meaning. Example clues will often use Signal Words such as for example, like, such as Example: Adventurous, rowdy, and crazy pioneers all found their way out West.

Steps of Strategic Context Clues

1. Select passages from the textbook or literature that contain unknown words.

2. Demonstrate how to problem-solve the meaning of the unknown words by doing a "Think-Aloud" of the FP'S BAG SALE strategies.

3. Select words that can be specifically determined by each step of the process.

4. Also, select words that have no helpful context clues to show how the process is not fool-proof.

3.5 The Advantages of Strategy Context Clues

A part from enlarging a reader's vocabulary, this approach has some advantages such as , the intention of vocabulary acquisition, stimulate critical thinking of reader, for critical reader, it doesn't need longer time than opening dictionary, can be useful to define word meaning for any polysemous word depend on the context.

a. The intention of vocabulary acquisition

Context clues are supporting sentences for providing information on the meaning of difficult words. Therefore, when we just have a little vocabulary mastery, of course will be directly proportional to mastery of context clues.

For examples, when there is a sentence and we do not even understand the meaning of it. We do not know the meaning of meaning of each word or we know a little word only, context clues, of course, this approach will not be running, as it should.

b. Stimulate critical thinking of reader

Creativity is needed when we are dealing with context clue. Carefulness in reading the information, such as punctuation, and keywords will greatly affect the accuracy in guessing unfamiliar word. In deciphering punctuation for example, a dash (-) or mark (,) has a big share in applying context clues.

c. For critical reader, it does not need longer time than opening dictionary

Context clues are hints found within a sentence, paragraph, or passage that a reader can use to understand the meanings of new or unfamiliar words. A reader must be aware that many words have several possible meaning. Only by being sensitive to the circumstances in which a word is used, the reader are able to decide upon an appropriate definition to fit the context.

d. Can be useful to define word meaning for any polysemous word depend on the context

A polysemyis a word or phrase with different, but related senses. Since the test for polysemy is the vague concept of relatedness, judgments of polysemy can be difficult to make. Because applying pre-existingwords to new situations is a natural process of language chance, looking at words' etymology is helpful in determining polysemy but not the only solution; as words become lost in etymology, what once was a useful distinction of meaning may no longer be so.

3.6The Disadvantages of Context Clues

There are some of disadvantages of context clues, among of them are. For beginner reader, it needs more time. The context clues sometime does not sufficient and leads the reader in misunderstanding . Depend from our background knowledge.

a. For beginner reader , it needs more time

Context clues require extra creativity and flair course for beginners. Learning about the context clues is not easy. Novice readers tend to have mastered a lot of vocabulary. So it will be difficult novices when they encounter unfamiliar words. Context clues is the easiest way to guess of an unfamiliar word.

b. The context clues sometimes does not sufficient and leads the reader in misunderstanding

The context in which unknown words are presented in text are not always helpful and, in some cases, can mislead students into making false inference about word meanings.

4. Text

Text is the main body of matter in a manuscript, book, newspaper, etc. As distinguished from notes, appendixes, heading, illustration, etc. They include any communicative device used to convey a massage or idea. For example :

"single image /films / voice recording/ books/ blogs/ twiterrs/ poetry/ prose.

These various types of texts make different demands on the readers, viewers or listeners. Thus they are open to various interpretations based on the context in which they are written and received. The texts used in this course give students the opportunity to understand them according to their form, content, purpose, and audience and through the social, historical, cultural and workplace contexts that procedure and value them.

4.1 Type of text

There are types of text in English : Narrative text, Descriptive text, Recount text, report text, procedure text etc.

*Narrative text*is a story with complication or problematic events and it tries to find the resolutions to solve the problems. An important part of narrative text is the narrative mode, the set of methods used to communicate the narrative through a process narration. The purpose of narrative text is to amuse or to entertain the reader with a story.

Generic structure of narrative text:

1. Orientation

Sets the scene: where and when the story happened and introduces the participants of the story: who and what is involved in the story.

2. Complication

Tells the beginning of the problems which leads to the crisis (climax) of the main participants.

3. Resolution

The problem is resolved, either in a happy ending or in a sad ending.

4. Coda

This is a closing remark to the story and it is optional. It consist of a moral lesson, advice or teaching from the writer.

Descriptive text is a text which says what a person or a thing is like. Its purpose is to describe and reveal a particular person, place or thing.

Generic Structure of Descriptive text

1. Identification

Identifying the phenomenon to be described.

2. Description

    Describing the phenomenon in parts, qualities, or characteristics.

    Language feature of descriptive text

    - Using attributive and identifying process

    - Using adjective and classifiers in nominal group

    - Using simple present tense

Recount text is a text which retells events or experiences in the past. Its purpose is either to inform or to entertain the audience. A recount text has an orientation, a series of events in chronological order, personal remarks on the events and reorientation that "rounds off" the sequence of events. In the text, you will find words and phrases used to start, connect a series of events and evaluate their significance in some way.

    Generic structure of recount text:

1. Orientation : Introducing the participants, place, and time.

2. Events : Describing series of event that happened in the past.

3. Reorientation : It is optional, starting personal comment of the writer to the story.

    Language feature of recount text :

    - Introducing personal participant; I, my group, etc.

    - Using chronological, connection, then, first, etc.

    - Using linking verb; was, were, saw, heard, etc.

- Using action verb; look, go change, etc.

- Using simple past tense

Social function

- Focus on individual people

- Use words which indicate when and where the events took place in the shed.

- Write in the past tense

- Use action words

Report Text is a text which presents information about something, as it is. It is as a result of systematic observation and analysis. There are many kinds of the text that can be read such as narrative text, recount text, descriptive text, report text, analytical exposition and etc. One kind of the text that they read is report text because in Junior High School Standard Competencies report text has been learnt by ninth grade students of Junior High School. According to Ahmad (2008:22) report text is a text that describe the way things are, with reference to a range of natural, man-made and social phenomena in our environment. The report text describes something in general. The report text that is used in this research is focus on particular of animal.

B. Conceptual Framework

Reading is a complex and deliberate activity, in this case the form of the thought process in which the action consist of various works in an integrated way of thinking leads to one goal, namely to understand the overall meaning of text

exposure. By reading a person will gain new understandings, gain knowledge, gain new ideas, expand the view so that later they have high intelligence and civilization that is useful to himself and useful to others.

Context clues are bits of information from the text that , when combined with prior knowledge, allow you to decide the meaning of unknown words in the story or article you are reading.

C. Previously Related Study

In this research, the researcher was considering some previous research to support the researcher's proposal that is:

1. A study conducted by Kiani (2011) who studied on the effectiveness of contextual and structural method of teaching vocabulary, displayed that there was a difference between context and structure. In the study, the students were divided into two groups in which o   was taught with contextual method and the other group taught with structural method. The study revealed significant differences between the performances of the students taught with the contextual and structural method of teaching. The high achievers who were taught with the contextual method performed better as compared to the performance of the high achievers who were taught with the structural method of teaching vocabulary. The better performance of the high achievers was due to understanding of the meanings of the words with the help of contextual clues in a sentence and in the paragraph as a whole.

2. Martin-Chang & Levy (2005), found that teaching students to use context clues increased reading fluency and comprehension. Additional research indicates that students with specific learning disabilities will respond to instructional strategies that have been scientifically proven effective in the general education setting (King-Sears & Bowman-Kruhm, 2010). The use of context clues, however, requires extended practice opportunities for students who struggle with reading skills (Sze, 2010).

3. Cheung (2007) in an experimental study attempted to draw upon the achievement made by low achieving secondary students in guessing meaning from context. The study involved 80 students who were divided into two groups representing two modes of learning , the context and keyword methods. Result from study found that mean scores for the keyword method were much higher in both immediate and delayed recall texts. Students in context method asserted that it was difficult for them to use the method since they were required to learn too many words at one time. As a consequence, it was perceived to be challenging at some points.

This research is different from previous one. This research is focus on the students' achievement in applying Context Clues strategic. . From this research we can conclude that teaching using Strategic Context Clues will be better than conventional method. So, in this case the researcher wants to try applying Strategic Context Clues in reading comprehension.

D. Hypothesis

Based on the theoretical and conceptual framework above, hypothesis can be formulated as follows:

Ha   : There is a significant effect of applying strategic of the context clues to the students' achievement reading comprehension.

Ho   : there is no a significant effect of applying strategic of the context clues to the students' achievement reading comprehension.

CHAPTER III

METHIOD OF RESEARCH

A. Location of Research

This research was conducted in SMP PAB 8 SAMPALI MEDAN at JalanPasarHitam No. 69, KecamatanPercutSeituan. The research was conducted on February 2017. It was done from January until March 2017. The reason to choose this school as the location of this research because the researcher found out some problem in this school, most of students wasunderstand what they read especially in a text. The students only read the material without knowing what they read.

B. Population and Sample

The population of this research was taken from the students of eightgradein this study, the population of this research which consist of 2 classes. There are VIII-1 (30 students) and VIII-2 (30 students) which totally of 60 students.

According Arikunto (2006: 134) suggested "10-15% and 20-25% or more can be as sample when population is more than 100. And if the population is under 100, all the population could be taken as the sample". In this case 100% was taken out as the sample of this research. The researcher was all of the students as the sample. It can be see in the table.

Table 3.1

Population and Sample

Class	Population	Sample
VIII-1	30	30
VIII-2	30	30
Total	**60**	**60**

C. Research Design

The experimental quantitative research was conducted by using a experimental research which means that was a certain experiment that applied to the sample. To obtain the data, some activities were conducted such as divide the samples into two groups (the experimental and the control group). The pre -test was administrated to both groups before treatment is given. The post test was given after the treatment. The control group was using be treated be using lecturing method and the experimental group using strategic context clues.

Table 3.2

Research Design for Experimental Group and Control Group

Group	Pre-test	Treatment	Post-test
Experimental	√	Using Strategic Context Clues	√
Control	√	Using Lecturing Method	√

In this research, there are three procedures were hold to collect the data. They are representatively as follows:

1. Pre-Test

A pre-test was conducted to find out the homogeneity of the sample. It is used to determine whether the two groups are relatively equal in reading. The homogeneity was seen from the average score of each group. Before starting the experiment, a pre-test was administrated to the both group with the same items. It was expected the average score between them are not different too far because the two groups are in the same level knowledge.

2. Treatment

The treatment was conducted after the administration of the pre-test. The process of experiment was conducted in three meetings. The activities during the treatment are using strategic context clues in teaching a text in the experimental group, as a describe in table 3.3

Table 3.3
Teaching procedure of the Experimental Group

NO	Teacher	Students
1.	The teacher introduced and demonstrated teaching reading comprehension by using strategic context clues.	The students paid attention to the teacher's introduction and demonstration.
2.	The teacher gave brief explanation about text.	The students paid attention to the teacher's explanation.
3.	The teacher wrote examples the text in the whiteboard to attract the student' attention before share the copies of the text.	The students paid attention.
4.	The teacher asked the students they already know about the text.	The students try to describe what they know.
5.	After that, the gave copies of the	The students did what the teacher

NO	Teacher	Students
	text to the students and asked them to look through the whole passage.	ask.
6.	**Clarifying** The teacher asked students to see the first questions and ask them to read a text.	The students did what the teacher ask.

Table 3.4

Teaching Procedure of the Control Group

NO	Teacher	Students
1.	The teacher guided the students open their text book and teacher read the text in the text book.	The students listened to the teacher's read.
2.	The teacher ask one of students read have been back the teacher.	The students read the text.
3.	The teacher gave the students a set of question to answer by students.	The students answer the question.
4.	The teacher with the students answer the question together.	The students and the teacher answer of the question.

3. Post-Test

After having conducted the treatment, both groups have been tested by giving a post-test. The researcher gave the students post-test in order to see the result whether the method was effective or not. The post-test was exactly the same as pre-test. It was intended to find out the mean score of both groups.

D. The Instrument of the Research

The instrument for collecting data in this research was multiple choice. The data of this research collected by giving test, a pre-test and post-test that is given to experimental and control group. The test consists of 15 items; each correct answer was given 1, and the incorrect answer is given 0.

E. Technique of Collecting Data

In collecting data, some steps will be applied as following:

a. Giving pre-test to both classes.

b. Give treatment

    1. Experimental Group   : using strategic context clues

    2. Control Group   : using lecturing method

c. Giving post-test to the experimental group.

F. Technique of Data Analysis

After collecting the data from the test, the data will be analyze by using the following procedure:

1. The researcher will be given pre-test, treatment and post-test to each group.

2. Reading and check the students answer sheet of both the groups.

3. Scoring the students answer for correct answer and wrong answer. In scoring the test, the researcher will be used score ranging 0-100 by counting the correct answer and applying this formula :

$$R$$

Where :

S = The score
R = The number of the correct answer
N = The number of the test item

4. Listing their score into two tables, first for experimental group score and second for the control group score.

5. Tabulating or calculating the total score post-test in experimental group and control group.

   The test is calculated using t-test formula as follow that developed by Sudjana (2005) as follows :
   a. $y = a + b$

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

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

   b. Determining cooficient r^2 by formulation (Sudjana 2005)

   $$r^2 = \frac{b\{N(\sum XY - (\sum X)(\sum Y)\}}{N\sum Y^2 - (\sum Y)^2}$$

   c. The statistical hypothesis could be determined by using

   $$t = \frac{r\sqrt{n-2}}{\sqrt{t-r^2}}$$

   d. Percentage of the use of method
   $$D = r^2 \text{ X } 100$$

G. Statistical Hypothesis

   Based on the problems of the study, the hypothesis will be formulated as the following

Ha = There is asignificant effect of applying strategic of the context clues to the students' achievement reading comprehension.

Ho = There is not significant effect of applying strategic of the context clues to the students' achievement reading   ı.

CHAPTER IV

DATA COLLECTION AND DATA ANALYSIS

A. Data Collection

The result of pre-test and post-test in experimental group can be seen in table 4.1 and that was the result of the pre-test and post-test in control group can be read in the table 4.2.

Table 4.1

The Students' Score in Pre-test and Post -test in Experimental Group

Score	Frequency		Total	
	Pre-test	Post-test	Pre-test	Post-test
30	IIII	-	4	-
35	IIII IIII	-	9	-
40	IIII II		7	-
45	IIII I	-	6	-
50	IIII	-	4	-
55	-	-	-	-
60	-	-	-	-
65	-	I	-	1
70	-	IIII IIIIIIII	-	14
75	-	IIII IIII	-	9
80	-	III	-	3
85	-	-	-	-
90	-	III	-	3
Total			**30**	**30**

The data in table 4.1 showed the result of the pre-test and post-test in experimental group. Based on the scores in the table 4.1 above, it could be

decided that the differences between pre-test and post-test scores in experimental group. The highest score of pre-test in experimental group was 50 and the lowest was 30, while the highest score of the post-test was 90 after giving treatment, and the lowest was 65.

Table 4.2

The Students' Score in Pre-test and Post -test in Control Group

Score	Frequency		Total	
	Pre-test	Post-test	Pre-test	Post-test
20	IIII	-	4	-
25	TMI I	-	6	-
30	TMI TMI I		11	-
35	IIII	-	4	-
40	III	-	3	-
45	II	-	2	-
50	-	-	-	-
55	-	-	-	-
60	-	-	-	-
65	-	TMI IIII	-	9
70	-	TMI TMI III	-	I3
75	-	IIII	-	4
80	-	II	-	2
85	-	II	-	2
90	-	-	-	-
95	-	-	-	-
Total			**30**	**30**

The data in table 4.2 showed the result of pre-test and post-test in control group. Based on the table above, it could be showed that was the differences between pre-test and post-test scores in control group. The highest score of pre-test in control group was 45 and the lowest was 20, while the highest score of the post-test was 85, and the lowest was 65.

Table 4.3

The Students' Achievement Score in Pre-test and Post-test in

Experimental Group

Statistical Calculation	Pre-test	Post-test
Highest	50	90
Lowest	30	65
Sum	1175	2230
Mean	39,16	74,33
N	30	30

Table 4.4

The Students' Achievement Score in Pre-test and Post-test in

Control Group

Statistical Calculation	Pre-test	Post-test
Highest	45	85
Lowest	20	65
Sum	910	2145
Mean	30,33	71,5
N	30	30

B. Data Analysis

The analysis of data was conducted to providing the hypothesis of the research. each of these is presented as follows:

Table 4.5

Providing the Hypothesis

Correlation Product Moment	T-test	Linear Regression	Significant Effect
$r_{xy=}0,98$	$t = 27,26$	$a = 0,47$ $b = 0,84$ $Y' = 0,47 + 0,84X$	$D = 96\%$

Based on the calculating of t-observed, it was found that t-observed was 27,26 and based on the level of significant 0.05 with the degree of freedom 30 (n-2) = 30-2 = 28, t-table was 1.637. It shows that there was significant effect of applying strategic of the context clues to the student's achievement in reading comprehension.

C. Examination the statistic hypothesis

Ha P#0   : There is significant effect of applying strategic of the context

          clues to the students' achievement reading comprehension

H_0= P=0   : There is no significant effect of applying strategic of the context

          clues to the students' achievement reading comprehension

The statistical hypothesis could be determined by using :

$$t = \frac{r\sqrt{n-2}}{\sqrt{1-r^2}}$$

With a criteria examination α, H_0 is accepted if t $_{observed}$> T $_{table}$or H_0 is rejected if t

$_{observed}$< T $_{table}$ with the degree of freedom of df= N-2= 58, α= 5% = 0, 05

$$t_{observed} = t = \frac{r\sqrt{n-2}}{\sqrt{1-r^2}}$$

$$= \frac{1,41\sqrt{60-2}}{\sqrt{1-1,41^2}}$$

$$= \frac{1,41\sqrt{58}}{1-1,9}$$

$$= \frac{10,7}{0,9}$$

$$= 11,8$$

t_{table} $= t\ (1-\frac{1}{2}\ 0,05)^{df}$

$$= t\ (1-\frac{1}{2}0,05)^{28}$$

$$= t(\ 0,975)^{28}$$

$$= 1,63$$

Based on the calculation above, where $t_{observed} > T_{table}$ (11,8>1,63) it could be concluded than H_0 was rejected. It meant that Hα was accepted or "there is significant effect of applying strategic of the context clues to the students' achievement reading comprehension".

D. Finding

After collecting data, the lowest score for pre-test of experimental group is 30 and highest is 50. The lowest score for post-test is 65 and the highest is 90. The lowest score for pre-test of control group is 20 and highest is 45. The lowest for post-test is 65 and highest is 80.

After adapting the data into t-test formula it is t-observed is 11.8. The t-observed compared to t-table value (11,8>1,637), so the hypothesis has null hypothesis has been successfully rejected. As the result, the students' achievement in reading comprehension by applying context clues strategic is higher than taught by conventional method, the hypothesis is accepted.

CHAPTER V

CONCLUSIONS AND SUGGESTIONS

A. Conclusions

Based on the data analysis, the conclusion can be drawn as follows:

It was found that a significant effect of applying strategic of the context clues to the students' achievement in reading comprehension which was proved by the result of the test. The findings show that $t_{observed} > t_{table}$ or $11,8 > 1,635$. It means that the alternative hypothesis (H_a) was accepted and the null hypothesis (H_o) was rejected. Therefore, applying context clues strategy has significant effect on the student's achievement in reading comprehension.

B. Suggestions

Based on the conclusion above, some suggestionswere put forward as the following:

1. The English teachers are expected to use Context Clues Strategy in teaching reading comprehension to students. The teacher would be better to teach reading comprehension because interesting in teaching learning process.

2. The students are expected to use Context Clues Strategy before reading because it can stimulate their cognitive students so that they can be easier to comprehend the text in reading comprehension.

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LESSON PLAN

(CONTROL GROUP)

School   : SMP PAB 8 SAMPALI MEDAN

Subject   : English

Class/Semester   : VIII/II

Time   : 2 x 40 Minutes

Skill   : Reading

A. Standard Competence

Reading understanding the report text by reading correctly.

B. Basic Competence

Responding reading and knowing that meaning that means in the report text.

C. Indicator

1. To read the text
2. To get specific information from a text related to related to the topic.
3. To identify the meaning of new words in the text

D. Learning Objectives

At the end of the lesson students are expected to be able to:

1. Students are able to read the report text.
2. Students are able to get specific information from a text related to the topic.

3. Students are able to identify the meaning of new words in the text.

E. Learning Material : Report Text

F. Teaching Method : **Lecturing Method**

G. Learning Activity

Learning Activity	Time Allocation
First Meeting Opening : • Greeting • Checking the students' attendance list	5 minutes
Main Activity: • Giving the pre-test • Collecting the students' work to be evaluated	35 minutes
Second Meeting Opening : • Greeting • Checking the students attendance list Main Activity • Giving the explanation about the material • Explaining how to comprehend the text by using lecturing method • Explaining the task for each students to make their task. Closing : • Concluding the learning material. • Asking the students to practice their English at home.	5 minutes 35 minutes
The Third Meeting Opening : • Greeting • Checking the students attendance list	5 minutes
Main Activity: • Giving the post to the students in order to know the students evaluation.	35 minutes

H. Learning Sources
Source   : Internet, dictionaries.
Media   : Whiteboard and marker

I. Evaluation
Give objectives test
Kind   : Individual test
From   : Multiple choice
Technique   : Reading

J. Assessment

No	Aspect	Score
1	True answer	1
2	Wrong answer	0

1. Every correct answer score   = 1
2. Amount of maximum score1x15   = 15
3. Maximum mark   = 15
4. Students mark   =

Score $=$ Total of true answers x100%
                Total of question

Medan,   Maret 2017

Known by

English Teacher   Researcher

(Irwansyah, S.Pdi)   (Sarifah Ainun)
NIP.   NPM.1302050104

Headmaster of SMP PAB 8 SAMPALI MEDAN

(Drs.H. Agus Salim)
NIP.

LESSON PLAN

(EXPERIMENTAL GROUP)

School   : SMP PAB 8 SAMPALI MEDAN

Subject   : English

Class/Semester   : VIII/II

Time   : 2 x 40 Minutes

Skill   : Reading

A. Competence Standard
Understanding the meaning and functional text in from of report in the social context to access the knowledge.

B. Basic Competence
1. To understand the message of report text accurately and completely in social context.
2. To comprehend the meaning of report text accurately and clearly in everyday life based on linguistic and cultural knowledge.

C. Indicator
1. Identify the meaning of report text
2. Identify the generic structure of report text
3. Identify the language features of report text
4. Comprehend the meaning of report text based on linguistic and cultural knowledge

D. Learning Objectives
At the end of the lesson students are expected to be able to:
1. Students are able to identify the meaning
2. Students are able to identify the generic structure of report text
3. Students enable to identify the language features of report text
4. Students enable to comprehend the meaning of report text based on linguistic and cultural knowledge

- The character of students expected to:
  1. Trustworthiness
  2. Respect
  3. Diligence
  4. Responsibility

E. Learning Material   : Report Text

F. Teaching Method   : Strategic Context Clues

G. Learning Activity

No	Activity	Students' activity	Teacher's activity	Duration
1	Opening	-Students greet the teacher. -Students rise their hand to respond. -Students share and give opinion about famous reporters. -Students recall some information and give response.	-Teacher response to students greeting. -Teacher check the students' attendance (asking who is absent) -Teacher asks the class about famous report. -Teacher provides an opportunity for students to share their opinion. - Teacher introduces the topic and objective of the material.	5 minutes
2	Explanation about the generic structure and language feature of report text.	-Students take a note during the explanation and enrich their knowledge - Students give their opinion. - Students employ a critical thinking and ask some question	- Teacher explains about the generic structure and language feature of report text.	15 minutes
3	Instructions and tasks for the students	-Students are having a discussion with teacher or friend about the topic that discussed.	-Teacher asks the students to work individually - Teacher guides the students to start	35 minutes

		- Students increase the reading skill by reading and practicing to memorize the synonym and antonym to answer the question.	reading about report text.	
4	Test and sharing session	-Students do exercise to deepen their knowledge -Students use a critical thinking to answer the teacher question.	-Teacher asks the students to answer some question about generic structure and language form of report text in quiz. -Teacher asks the students to share the difficulties in reading and their opinion toward strategy reading.	20 minutes
5	Closing	Students greet the teacher when the bell ringing	Teacher greets the students to end the meeting.	5 minutes

H. Learning Sources

Sources   : Internet, dictionaries.
Media   : Whiteboard and marker.

I. Evaluation

Give objectives test
Kind   : Individual test
Form   : Multiple choice
Technique : Reading

J. Assessment

No	Aspect	Score
1	True answer	1
2	Wrong answer	0

5. Every correct answer score   = 1

6. Amount of maximum score1x15   = 15
7. Maximum mark   = 15
8. Students mark   =

Score $=$ $\frac{\text{Total of true answers}}{\text{Total of question}}$ x100%

Medan, Maret2017

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TEST ITEMS

LEARNING MATERIAL

Read the text carefully and choose one of the antonymword !

Kangaroo

A Kangaroo is marsupial from the family Marcopodidae(marcopods, meaning ' large foot'). In common use the term is used to describe to describe the largest species from this family, the Red Kangaroo, the Antilopine Kangaroo, and the eastern and Westren Grey Kangaroo of the Marcopus genus.

The Kangaroo is an Australian icon: it is featured on the Australian coat of arms, in some of its currency, and is used by many Australian organizations, including Qantas.

Kangaroo soon became adopted into Standard English where it has come to mean any member of the family of kangaroos and wallabies. Male kangaroos are called bucks, boomers, jacks, or old men; female are does, flyers, or jils, and the young one are joeys. The collective noun for kangaroos is a mob, troop, or court. Kangaroos are sometimes colloquially referred to as roos.

Kangaroos have large, powerful hind legs, large feet adapted for leaping, along muscular tail for balance, and a small head. Like all marsupials, female kangaroos have a pouch called a marcupium in which joeys complete postnatal development.

Because of its long feet, it cannot walk correctly. To move at slow speeds, it used its tail to form a tripod with its two forelimbs. It then raises its hind feet forward, in a form of locomotion called "crawl-walking".

1. A Kangaroo is marsupial from the family Marcopodidae(marcopods, meaning ' **large** foot').
   a. Small
   b. Big

c. Thin

d. Fat

2. **Male** kangaroos are called bucks, boomers, jacks, or old men; female are does, flyers, or jils, and the young one are joeys

   a. Boy

   b. Girl

   c. Female

   d. Men

3. To move at **slow** speeds, it used its tail to form a tripod with its two forelimbs.

   a. Slowly

   b. Fast

   c. Fun

   d. Walk

Spider

Spider are predatory invertebrate animals. They are not classified in the class of insect. A spider has eight legs while an insect never has more than six legs.

Spiders have body with two main division, four legs and two other pairs of abdominal spinnerets for spinning threads of silk. This silk can be used to aid in climbing, build egg sacs and catch pray.

Spider kill so many insect, but they never do the least harm to man's belonging. Spiders are busy for at least half of the year killing insect. It is impossible to find out how many insect they kill, since they are hungry creature which cannot be content with only three meals a day.

4. Spider are predatory **invertebrate** animals.

   a. Mammalia

   b. Marsupial

   c. Amfibi

   d. Vertebrate

5. This silk can be used to aid in **climbing**, build egg sacs and catch pray.

   a. Walking

b. Jumping

c. Running

d. Swimming

6. Spiders are **busy** for at least half of the year killing insect

a. Work

b. Job

c. Free

d. Full day

Elephant

Elephants are the largest land animal alive today. These animals have special body. Characteristics, among them are tusks and trunk.

Elephants tusks are made of hard, white substances like bone. When an elephants is angry, its tusk can very dangerous. The tusks f an elephant areactually its front teeth. People pay a lot of money for the ivory of an elephants' tusk. The ivory from the tusks is made into many beautiful things.

The trunk of an elephant is a fusion of the nose and upper lip. An elephant uses its trunk in many ways. It pulp up tress with its trunk when it want to make a long path thought the jungle. It also uses to get water. The trunk can hold a lot of water, as an elephant needs to drink three pints of everyday.

7. Elephants are the largest land animal **alive** today.

a. Die

b. Live

c. Born

d. Gone

8. Elephants tusks are made of **hard**, white substances like bone.

a. Work

b. Soft

c. Strong

d. Easy

9. The ivory from the tusks is made into many **beautiful** things.

   a. Ugly

   b. Pretty

   c. Beauty

   d. Awesome

10. It pulp up tress with its trunk when it want to make a **long** path thought the jungle.

   a. Great

   b. Short

   c. Extensive

   d. Lengthly

Read the text carefully and choose one of the synonym word !

Gorillas

Although gorillas look ferocious, they are really rather quiet apes. They live in family groups in the thickest parts of jungles. A gorilla's feet, hands and wrinkled face bare and black. His fur may be short or long, depending where he lives.

The short hair gorilla's lives in the hot, tropical forest of western Africa and the long hair gorilla live in the cooler in the high mountains of central Africa.

A gorilla arms are so long; they almost touch the ground, even when he is standing up! Some wild mountain gorillas weigh as much as you, your father all weigh together.

At night the father gorillas sleeps on the ground. But the mother and baby gorillas sleep in the big nest of stick and leaves on the ground, or in the lower branches of trees, where they are safer from prowling animals.

11. Although gorillas look **ferocious**, they are really rather quiet apes.

a. Cruel

b. Soft

c. Mellow

d. Tender

12. The short hair gorilla's lives in the **hot**, tropical forest of western Africa and the long hair gorilla live in the cooler in the high mountains of central Africa.

a. Cool

b. Warm

c. Ice

d. Cold

13. Some wild mountain gorillas weigh **as much as** you, your father all weigh together.

a. As many more

b. As many as

c. As possible as

d. As long as

ANTS

Ants are small insect. The body of an ant is clearly divided into three sections; the head, the thorax, and the gaster. (The narrow waist is actually within the abdomen, so the part of the abdomen behind the waist is called the gaster). The waist can be made up of one or two small segments, depending on the species.

Ants are social insect living in colonies comprised of one or a few queens, and many workers. The queen generally stays deep and safe within a nest. Most ants that you see are workers and these are all females. Depending on species, workers may be similar in size, or in a range of sizes. Ants tend to come in dark or earth-tones. Different species are black, earth-tone reds, pale tens, and basic browns.

14. Ants are social insect living in colonies comprised of one or a **few** queens, and many workers

    a. Some

    b. Any

    c. Of

    d. And

15. Most ants that you **see** are workers and these are all females.

    a. Seen

    b. Listen

    c. Look

    d. Watch

APPENDIX

Table 4.1

The Scores of the Pre-test and Post-test in Experimental Group

No.	Initial Names	The Scores	
		Pre-test (T_1)	Post-test (T_2)
1	AS	40	75
2	AWR.	35	70
3	AA	45	80
4	AP	45	75
5	AK	35	70
6	BR	50	90
7	BP	50	90
8	DPAS	45	75
9	DRF	40	75
10	EK	45	80
11	IK	35	75
12	IWL	30	65
13	ISH	35	70
14	JAR	40	70
15	KA	35	70
16	LI	35	75
17	MDA	30	70
18	MJ	40	70
19	MRS	35	75
20	MZR	35	70
21	MS	45	75

No.	Initial Names	Pre-test (T₁)	Post-test (T₂)
22	MAD	40	70
23	NC	50	90
24	OSN	40	70
25	RTA	35	70
26	RA	30	75
27	RP	30	70
28	SDL	40	70
29	SFA	45	80
30	YY	40	70
Total		$\sum T_1 = 1175$	$\sum T_2 = 2230$

The data in table 4.1 showed the result of the pre-test and post-test in experimental group. Based on the scores in the table 4.1 above, it could be decided that the differences between pre-test and post-test scores in experimental group. The highest score of pre-test in experimental group was 50 and the lowest was 30, while the highest score of the post-test was 90 after giving treatment, and the lowest was 65.

After calculating the data for the experimental group above the total score for pre-test is $\sum T_1 = 1175$ and the total score for post-test was $\sum T_2 = 2230$ it meant the score for post-test was higher than pre-test.

Table 4.2

The Scores of the Pre-test and Post-test in Experimental Group

No.	Initial Names	The Scores	
		Pre-test (T₁)	Post-test (T₂)
1	AA	20	85
2	AM	30	70

3	AN	35	65
4	AD	30	70
5	AR	30	65
6	CN	25	70
7	DAP	20	70
8	DA	20	65
9	EP	45	70
10	EH	30	70
11	FA	25	70
12	FS	20	75
13	IR	25	80
14	IP	25	70
15	IE	30	75
16	LI	30	80
17	MA	30	85
18	MD	30	70
19	MR	25	65
20	MP	25	75
21	NAA	30	70
22	PS	35	65
23	RA	40	70
24	RN	35	65
25	RS	40	70
26	RS	40	65
27	RB	30	75
28	SR	45	70
29	SJ	30	65

30	TA	35	65
Total		**$\sum T_1$=910**	**$\sum T_2$=2145**

The data in table 4.2 showed the result of pre-test and post-test in control group. Based on the table above, it could be showed that was the differences between pre-test and post-test scores in control group. The highest score of pre-test in control group was 45 and the lowest was 20, while the highest score of the post-test was 85, and the lowest was 65.

After calculating the data for the control group above the total score for pre-test was $\sum T_1$=910 and the total score for post-test was $\sum T_2$=2145 it means the score for post-test is higher than pre-test.

Table 4.3

The Differences Scores of the Pre-test and Post-test in Experimental Group

No.	Students' Initial Names	The Scores				
		Pre-test (T$_1$)	**T_1^2**	**Post-test (T$_2$)**	**T_2^2**	**X=(T$_2$-T$_1$)**
1	AS	40	1600	75	5625	35
2	AWR.	35	1225	70	4900	35
3	AA	45	2025	80	6400	35
4	AP	45	2025	75	5625	30
5	AK	35	1225	70	4900	35
6	BR	50	2500	90	8100	40
7	BP	50	2500	90	8100	40
8	DPAS	45	2025	75	5625	30
9	DRF	40	1600	75	5625	35
10	EK	45	2025	80	6400	35

11	IK	35	1225	75	5625	40
12	IWL	30	900	65	4225	35
13	ISH	35	1225	70	4900	35
14	JAR	40	1600	70	4900	30
15	KA	35	1225	70	4900	40
16	LI	35	1225	75	5625	40
17	MDA	30	900	70	4900	40
18	MJ	40	1600	70	4900	30
19	MRS	35	1225	75	5625	40
20	MZR	35	1225	70	4900	35
21	MS	45	2025	75	5625	30
22	MAD	40	1600	70	4900	30
23	NC	50	2500	90	8100	40
24	OSN	40	1600	70	4900	30
25	RTA	35	1225	70	4900	35
26	RA	30	900	75	5625	45
27	RP	30	900	70	4900	40
28	SDL	40	1600	70	4900	30
29	SFA	45	2025	80	6400	35
30	YY	40	1600	70	4900	30
Total		$\sum T_1 = 1175$	$\sum (T_1)^2 = 47075$	$\sum T_2 = 2230$	$\sum (T_2)^2 = 166225$	$\sum (T_1 - T_2) = 1055$

Table 4.3 above shown that the total score pre-test in control group was 1200 while the total score of post-test was 2340.

The Calculation in Experimental Group

a. The calculation for pre-test in experimental group

   1. Mean

$$M (T_2\text{-}T_1) = \sum \frac{T_1}{N}$$

$$= \frac{1175}{30}$$

$$= 39, 16$$

2. Variances

$$S^2 = \sum (T_1)^2 - \frac{(T_1)^2}{N}$$

$$= 47075 - \frac{(1175)^2}{30}$$

$$= 47075 - \frac{1380625}{30}$$

$$= 47075 - 46020$$

$$S^2 = \sqrt{1055}$$

$$S = 32,48$$

3. Standard Deviation

$$SD = \sqrt{\frac{(\sum T_1)^2}{N}}$$

$$= \sqrt{\frac{(47075)^2}{30}}$$

$$= 271$$

b. The calculation for post-test in experimental group

1. Mean

$$M (T_1 - T_2) = \frac{\sum T_2}{N}$$

$$=\frac{2230}{30}$$

$$= 74{,}33$$

2. Variances

$$S^2 = \sum (T_2)^2 - \frac{(T_2)^2}{N}$$

$$= 166225 - \frac{(2230)^2}{30}$$

$$= 166225 - \frac{4972900}{30}$$

$$= 166225 - 165763$$

$$= 462$$

3. Standard Deviation

$$SD = \sqrt{\frac{(\sum T_2)^2}{N}}$$

$$= \sqrt{\frac{(166225)^2}{30}}$$

$$= 959$$

c. The calculation for total pre-test and post-test in experimental group

1. Mean

$$M (T_1 - T_2) = \frac{\Sigma(T_2 - T_1)}{N}$$

$$= \frac{1055}{30}$$

$$= 35, 16$$

2. Standard Deviation

$$SD = \sqrt{\frac{\Sigma(T_2 - T_1)^2}{N}}$$

$$= \sqrt{\frac{(1055)^2}{30}}$$

$$= \sqrt{\frac{1113025}{30}}$$

$$= 197, 6$$

Table 4.4

The Differences Scores the pre-test and post-test in Control Group

No.	Students Initial Names	The Scores				
		Pre-test (T_1)	T_1^2	Post-test(T_2)	T_2^2	X= (T_1-T_2)
1	AA	20	400	85	7225	65
2	AM	30	900	70	4900	40
3	AN	35	1225	75	4225	40
4	AD	30	900	70	4900	40
5	AR	30	1600	65	4225	35
6	CN	25	625	70	4900	45
7	DAP	20	400	70	4900	50
8	DA	20	400	65	4225	45
9	EP	45	2025	70	4900	25
10	EH	30	900	70	4900	40
11	FA	25	625	70	4900	45
12	FS	20	400	75	5625	45
13	IR	25	625	80	6400	55
14	IP	25	625	70	4900	45
15	IE	30	900	75	5625	45
16	LI	30	900	80	6400	50
17	MA	30	900	85	7225	55
18	MD	30	900	70	4900	40
19	MR	25	625	65	4225	40
20	MP	25	625	75	5625	50
21	NAA	30	900	70	4900	40
22	PS	35	1225	65	4225	30
23	RA	40	1600	70	4900	30

24	RN	35	1225	65	4225	30
25	RS	40	1600	70	4900	30
26	RS	40	1600	75	4225	35
27	RB	30	900	75	5625	45
28	SR	45	2025	70	4900	30
29	SJ	30	900	65	4225	35
30	TA	35	1225	65	4225	30
Total		$\sum T_1=910$	$\sum(T_1)^2=$ **29700**	$\sum T_2=2145$	$\sum(T_2)^2=$ **147675**	$\sum(T_1-T_2)=1235$

Table 4.4 above shown that the total score pre-test in control group was 910 while the total score of post-test was 2145.

The Calculation in Control Group

a. The calculation for pre-test in control group

   1. Mean

$$M\ (T_2-T_1) = \sum \frac{T_1}{N}$$

$$= \frac{910}{30}$$

$$= 30,33$$

   2. Variances

$$S^2 = \sum(T_1)^2 - \frac{T_1^2}{N}$$

$$= 29700 - \frac{910^2}{30}$$

$$= 29700 - \frac{828100}{30}$$

$$= 29700 - 27603$$

$$S^2 = \sqrt{2097}$$

$$S = 45,80$$

3. Standard Deviation

$$SD = \sqrt{\frac{(\sum T_1)^2}{N}}$$

$$= \sqrt{\frac{(29700)^2}{30}}$$

$$= 171$$

b. The calculation for post-test in control group

1. Mean

$$M\ (T_2 - T_1) = \sum \frac{T_2}{N}$$

$$= \frac{2145}{30}$$

$$= 71,5$$

2. Variances

$$S^2 = \sum (T_1)^2 - \frac{(T_2)^2}{N}$$

$$= 147675 - \frac{(2145)^2}{30}$$

$$= 147675 - 133367$$

$$= 1430$$

$$= \sqrt{1430}$$

$$= 37,81$$

3. Standard Deviation

$$SD = \sqrt{\frac{(\sum T_2)^2}{N}}$$

$$= \sqrt{\frac{(147675)^2}{30}}$$

$$= \sqrt{726930}$$

$$= 852$$

c. The calculation for total pre-test and post-test in control group

1. Mean

$$M (T_2 - T_1) = \frac{\Sigma(T_2 - T_1)}{N}$$

$$= \frac{1245}{30}$$

$$= 41, 5$$

2. Standard Deviation

$$SD = \sqrt{\frac{\Sigma(T_2 - T_1)^2}{N}}$$

$$= \sqrt{\frac{(1245)^2}{30}}$$

$$= \sqrt{\frac{1550025}{30}}$$

$$= \sqrt{51667}$$

$$= 227, 3$$

The data on table 4.5 showed that the different scores of the post-test in the experimental was **X= 2230** and in the control group class **Y= 2145.** After calculating of table the data for the experimental class the score of post-test was **X^2= 166225** and control class was **Y^2= 147675.** So, the total from calculation of table was XY= **158825**

Table 4.5

The calculation of table

No.	X	Y	X₂	Y₂	XY
1	75	85	5625	7225	6375
2	70	70	4900	4900	4900
3	80	65	6400	4225	5200
4	75	70	5625	4900	5250
5	70	65	4900	4225	4550
6	90	70	8100	4900	6300
7	90	70	8100	4900	6300
8	75	65	5625	4225	4875
9	75	70	5625	4900	5250
10	80	70	6400	4900	5600
11	75	70	5625	4900	5250
12	65	75	4225	5625	4875
13	70	80	4900	6400	5600
14	70	70	4900	4900	4900
15	70	75	4900	5625	5250
16	75	80	5625	6400	6000
17	70	85	4900	7225	5950
18	70	70	4900	4900	4900
19	75	65	5625	4225	4800
20	70	75	4900	5625	5250
21	75	70	5625	4900	5250
22	70	65	4900	4225	4800
23	90	70	8100	4900	6300
24	70	65	4900	4225	4800
25	70	70	4900	4900	4900
26	75	65	5625	4225	4800

27	70	75	4900	5625	5250
28	70	70	4900	4900	4900
29	80	65	6400	4225	5200
30	70	65	4900	4225	5250
Total	**X =2230**	**Y =2145**	**X²=** **166225**	**Y²=** **147675**	**XY=** **158825**

a. The equation of linear regression

y = α + b where α and b were got by :

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

$$= \frac{(2145)(166225) - (2230)(158825)}{60(166225) - (2230)^2}$$

$$= \frac{(356552625) - (354179750)}{9973500 - 4972900}$$

$$= \frac{2372872}{5000600}$$

$$= 0,47$$

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

$$= \frac{60(158825) - (2230)(2145)}{60(166225) - (2230)^2}$$

$$= \frac{9529500 - 4783350}{9973500 - 4972900}$$

$$= \frac{4746150}{5000600}$$

$$= 0,949$$

Y= α+ b

Y = 0, 47 + 0, 949

b. Coefficient r2

$$r^2 = \frac{b\{N(\sum XY - (\sum X)(\sum Y)\}}{N\sum Y^2 - (\sum Y)^2}$$

$$= \frac{0,949\{60(158825 - (2230)(2145)}{60(147675) - (2145)^2}$$

$$= \frac{90434955 - 4783350}{8860500 - 4601025}$$

$$= \frac{856551605}{4259475}$$

$$= 2,01$$

$$r = \sqrt{2,01}$$

$$r = 1,41$$