# THE EFFECT OF USING COGNITIVE ORGANIZERS STRATEGY TOWARD STUDENTS' READING COMPREHENSION ON NARRATIVE TEXT AT THE SECOND YEAR OF SMAN 13 SIAK



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A Thesis

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Pekanbaru, July 16<sup>th</sup>, 2013 The writer,

> IWIN SUHARTINI NIM. 10914005972

#### **ABSTRAK**

Iwin Suhartini (2013): "Pengaruh dari Penggunaan Strategi Cognitive Organizers Strategy terhadap Pemahaman Membaca Teks Narratif Siswa pada Kelas Dua SMAN 13 Siak."

Penelitian ini berjudul "Pengaruh dari Penggunaan Strategi Cognitive Organizers terhadap pemahaman siswa dalam membaca teks narrative pada Siswa Kelas 2 SMAN 13 Siak". Penelitian ini mempunyai 3 formulasi permasalahan yaitu bagaimana kemampuan siswa dalam memahami teks narrative setelah diajarkan dengan menggunakan strategi cognitive organizers, bagaimana kemampuan siswa dalam meamhami teks narrative sebelum diajarkan dengan menggunakan strategy cogniteive organizers, dan apakah ada dampak yang signifikan dari penggunaan strategi cognitive organizers terhadap kemampuan menulis teks esai pada siswa kelas 2 SMAN 13 Siak.

Tujuan dari penulisan ini adalah untuk mengetahui kemampuan siswa dalam memahami narrative teks setelah diajarkan dengan menggunakan strategi cognitive organizers, untuk mengetahui kemampuan siswa dalam memahami narrative teks sebelum diajarkan dengan menggunakan strategi cognitive organizers, untuk mengetahui apakah ada dampak yang signifikan dari penggunaan strategi cognitive organizers terhadap pemahaman siswa dalam membaca narrative teks pada siswa kelas 2 SMAN 13 Siak.

Pada penelitian ini, jenis penelitian yang digunakan adalah penelitian eksperimen. Penulis mengambil *quasy experimen*. Penulis menggunakan dua kelas sebagai sampel yang terdiri dari 50 siswa. Sebelum memberikan perlakuan, siswa diberikan pre-test dan post-test diberikan setelah perlakuan. Teknik pengumpulan data adalah test. Test digunakan dalam rangka untuk mengetahui kemampuan siswa dalam memahami narrative teks pada siswa kelas 2 SMAN 13 Siak. Teknik analisa data menggunakan rumus regresi dalam rangka untuk perbedaan rata-rata antara pre-test dan post-test dengan menggunakan SPSS versi 16. Nilai yang diperoleh dibandingkan dengan T-table dengan mempertimbangkan *df*. Rumusnya adalah sebagai berikut: df = N – independent variable - 1

Berdasarkan analisa data, penulis menyimpulkan bahwa ada dampak yang signifikan dari penggunaan strategi cognitive organizers terhadap kemampuan pemahaman teks narrative pada siswa kelas 2 SMAN 13 Siak dengan mempertimbangkan  $T_{\text{hitung}} = 4.368$  lebih besar dari pada  $T_{\text{table}}$ . Hal ini berarti bahwa  $H_a$  diterima dan  $H_o$  ditolak.

#### **ABSTRACT**

Iwin Suhartini (2013): "The Effect of Using Cognitive Organizers Strategy toward Students' Reading Comprehension on Narrative Text at the Second Year of SMAN 13 Siak."

This research entitles "The Effect of Using Cognitive Organizers Strategy toward Students' Reading Comprehension on Narrative Text at the Second Year of SMAN 13 Siak". The research has 3 formulations of the problems that how is students' reading comprehension on narrative text taught by using cognitive organizers strategy, how is students' reading comprehension on narrative text taught without using cognitive organizers strategy and how is students' reading comprehension on the narrative text taught without using cognitive organizers strategy at the second year of SMAN 13 SIAK.

The objective of the research is to find out students' reading comprehension on narrative text taught by using cognitive organizers strategy, to find out students' reading comprehension on narrative text taught without using cognitive organizers strategy and to obtain whether there is significant difference of using cognitive organizers strategy toward students' reading comprehension on narrative text at the second year of SMAN 13 Siak.

In this research, the type of research used was quasy experimental research. The writer took nonequivalent control group design. The writer used two classes as sample that consists of 50 students. Before giving the treatment, the students were given pre-test and post-test were given after the treatment. The technique of collecting data was the test. The test was used in order to find out the students' reading comprehension on narrative text at the second year of SMAN 13 Siak. The technique of data analysis used regression formula in order to find out the amount relationship between post-test experimental class and post-test control class by using SPSS 16 Version. The score is consulate with T<sub>table</sub> by using df. The formula as follows:

df = N - independent variable - 1

Based on the data analysis, the writer has concluded that there is significant effect of using cognitive organizers strategy toward students' reading comprehension on narrative text at the second year of SMAN 13 Siak by considering  $T_{calculated} = 4.368$  is higher than  $T_{table}$ . It means that  $H_a$  is accepted and  $H_o$  is rejected.

# ايوين سوهرتيني (2013): تأثير استخدام إستراتيجيات المنظمون المعرفي إلى فهم

# عالية الحكومية ثلاثة عشر سباك

تحت عنوان هذه الدراسة" تأثير استخدام إستراتيجيات المنظمون المعرفي إلى فهم قراءة النص السردي اللطلاب في الصف الثاني بالمدرسة عالية الحكومية ثلاثة عشر سياك". هذه الدراسة على ثلاث صياغات للمشكلة، و هي كيف القدرة على فهم النص السردي للطلاب باستخدام إستراتيجيات المنظمون المعرفي، كيف القدرة على فهم النص السردي للطلاب لا تستخدام إستراتيجيات المنظمون المعرفي، و ما إذا كانت هناك اختلافات كبيرة بين الفهم القراءة النص السردي من الطلاب الذين تعلموا باستخدام إستراتيجيات المنظمون المعرفي و الفهم القراء النص السردي من الط

الين يتعلمون من دون استخدام منظمي الاستراتيجيات المعرفية في الصف الثاني بالمدرسة عالية الحكومية ثلاثة عشر سياك.

الغرض من هذه الورقة هو تحديد قدرة الطلاب على فهم النص السردي باستخدام الأستراتيجيات المنظمون المعرفي، لتحديد قدرة الطلاب على فهم

تدريسها باستخدام الأستراتيجيات المنظمون المعرفي، لمعرفة ما إذا كان هناك تأثير استخدام إستراتيجيات المنظمون المعرفي إلى فهم قراءة النص السردي اللطلاب في الصف الثاني بالمدرسة عالية الحكومية ثلاثة عشر سياك.

في هذه الدراسة، ونوع من البحث التجريبي, الكتاب يأخذ شبه التريبي. يستخدام المؤلف فئتين كما العينات يتكون من 50

الاختبار و تعطي له الاختبار البعدي بعد العلاج. تقنيات جمع البيانات هو اختبار. تم استخدام اختبار من أجل تحديد قدرة الطلاب على فهم النصوص

بالمدرسة عالية الحكومية ثلاثة عشر سياك. تحليل البيانات باستخدام صيغة تي عينة اختبار

# 16. الصيغة على النحو التالي:

الفهم القراءة النص السردي من الطلاب الذين تعلموا باستخدام أستراتيجيات المنظمون المعرفي و المعرفية من الصف الثاني بالمدرسة عالية الحكومية ثلاثة عشر سياك من خلال النظر تي العدد = 8 332 هو أعلى من تي الجدول في مستوى الدلالة 5% = 2 01 = 2 8. يمكن قراءة 2 01<8 28>2 86. وهذا ن يتم قبول ها و رفض هو.

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#### **BIBLIOGRAPHY**

#### **CHAPTER I**

#### INTRODUCTION

#### A. The Background of the Problems

Reading is an activity with a purpose. A reader may read in order to gain information or verify existing knowledge, or in order to criticize a writer's ideas or writing style. A reader may also read for enjoyment, or to enhance knowledge of the language being read. The purpose(s) for reading is to guide the reader's selection of texts.Reading comprehension is essentially the ability to understand what has been read. Reading comprehension as a complex process in which the reader uses the ability to find information, it means that the reader must be able to comprehend the meaning of printed words. Snow, et all in Mathersays that reading comprehension is a complex task that requires the readerto identify words in text, know the meaning of the words, connect the ideas to prior knowledge, and retain information long enough to understand what is being read. More simply, comprehension results from an integration of decoding skills with language comprehension skills.<sup>1</sup>

Reading is a language acquisition, of communication, and of sharing information and ideas. Like all language, it is a complex interaction between the text and the reader's prior knowledge, experience, attitude, and language community which is culturally and socially situated. Reading is one of main language that must be learned and developed by students.

<sup>&</sup>lt;sup>1</sup>Barbara J. WendlingNancy Mather, *Essentials of Evidence-Based Academic Intervention*. (New Jersey: John Wiley & Sons, Inc, 2009) 77

English is one of subjects learned by the students at the SMAN 13 Siak. Based on Competence Based Curriculum (KBK) provides the purposes of learning English for junior high school are as follows:

- Developing communicative competence in oral and written form to achieve functional informational level.
- Having awareness about sense and significance of English to increase national competence in global society.
- 3. Developing students' understanding about relationship between language and culture.<sup>2</sup>

In communicative competence students are able to understand and produce written and oral texts and applied into four skills such as, listening, speaking, reading and writing. Based on Competence Based Curriculum (KBK) students in senior high school must achieve informational literacy level, because the students prepared to continuo their education in university. Through learning English students are able to know their selves, their culture and other culture. By learning English students are able to give opinion and feeling to participate in society.<sup>3</sup>

According to syllabus, the standard of competence in reading refers to the ability of students to understand meaning in functional text in narrative, recount and procedure text to interact with environment.<sup>4</sup> Functional refers to students are able to use English in daily life. The basic of competence in reading refers to

<sup>&</sup>lt;sup>2</sup>Depdiknas. 2006. *Kurikulum Tingkat SatuanPendidikan (KTSP) 2006*. (Jakarta: Unpublished, 2006)15

<sup>&</sup>lt;sup>3</sup>Ibid.

<sup>&</sup>lt;sup>4</sup> Ibid.

understand and respond the meaning of the text and acceptable in the forms of texts such as narrative, recount and procedure.

Narrative text is one kind of texts exist in school curriculum. In reading narrative text, students are expected to respond and understand monologue texts accurately and fluently.<sup>5</sup> Students study English twice a week with time duration about 90 minutes (2 x 45 Minutes). Usually in teaching reading, the teacher gives a topic to students, and then students read thetext. After read some text, the teacher ask the main idea of the textto the students. The teacher uses this technique to teach reading.

Based on school's curriculum (*KTSP*) of second year of senior high school, in reading skill, students are expected to respond and understand monologue texts accurately and fluently<sup>6</sup>. Senior high school of 13 Siak is one of schools located Siak Regency. This school uses *KTSP* in teaching English. The techniques used by teachers of English of senior high school of 13Siak, in the application of teaching English is called written test. This technique is conducted by the teacher as follows:

- 1. The teacher gives a topic to students
- 2. The teacher Asksread student thetext.
- 3. The teacher ask the main idea of the textto the students

<sup>&</sup>lt;sup>5</sup> Ibid.

<sup>&</sup>lt;sup>6</sup> Ibid.

But in the fact, some of students are not able to achieve the standard of minimum criteria of passing grade (70). Some of students' score are far from standard of minimum criteria of passing grade. Based on the writer's observation at second year of senior high school of 13Siak, the writer found a lot of problems as follows:

- 1. Some of the students can not recognize what the topic tells about
- 2. Some of the students are not able to identify the main idea of narrative text
- 3. Some of the students are not able to identify the details of narrative text
- 4. Some of the students are not able to identify the factual information from the text

Based on the phenomena above the writer wants to use strategy in learning English especially in reading comprehension. In selecting the strategy the writer takes from the PPP stage. PPP is about presentation, practice and production.<sup>7</sup> Presentation refers to represent the introduction to a lesson, and necessarily requiring thecreation of a realistic situation requiring the target language to be learned. Practice is usually begins with what is termed 'mechanical practice' by means of drills repetitive exercises, and gradually moving into more demanding procedures like information gap, dialog creation and controlled plays. And production is seen as the culmination of the language learning process, whereby the learners act upon their linguistics knowledge, where they perform their competence and become users of the language. The teacher's role here is to

<sup>&</sup>lt;sup>7</sup>Karlfried Knapp and GerdAntos, *Handbook of Applied Linguistics*(New York: Deutsche Nationalbibliothek, 2009)366

provide occasions where the students can actively apply the language they have been practicing.

Based on explanation above the writer wants to use strategy to teach reading comprehension, it's called cognitive organizers strategy. This strategy is suitable to apply in reading narrative text. Cognitive organizers, which assist students in remembering and following learning strategy procedures, have been used effectively with main idea instruction. Cognitive organizers often employ mnemonic devices that cue students to the steps of the strategy. Although cognitive organizers can be used with students of all ages, they are frequently used with older students who can learn to use the steps independently. Boyle and Wishaar in Klingner, et all examined the effects of student generated and expertgenerated cognitive organizers (a cognitive organizer that has high utility, often developed by the teacher or textbook) on the reading comprehension of high school.<sup>8</sup>

Based on the problems above the researcher is interested in conducting a research entitled: "The Effect of Using Cognitive Organizers Strategy toward Students' Reading Comprehension on Narrative Text at The Second Year of SMAN 13 Siak."

<sup>&</sup>lt;sup>8</sup> Janette K. Klingner, Sharon Vaughn and Alison Boardman, *Teaching Reading Comprehension to Students With Learning Difficulties*. (New York: The Guilford Press, 2007)119

#### **B.** The Problems

Based on phenomena above, it is very clear that the students of the second year of senior high school 13Siak have a lot of problems especially in reading narrative text.

#### 1. The Identification of The Problems

Based on the problems above, the problems of this research can be identified as follows:

- a. Why are not some of the students able to recognize the topic tells about?
- b. Why are not some of the students able to identify main idea of narrative text?
- c. Why are not some of the students able to identify the details of narrative text?
- d. Why are not some of the students ableto identify the factual information from the text?
- e. How is students' reading comprehension on narrative text taught by using cognitive organizers strategyat the second year of SMAN 13 SIAK?
- f. How is students' reading comprehension on the narrative text taught without using cognitive organizers strategyat the second year of SMAN 13 SIAK?
- g. Is there any significant difference between students' reading comprehension taught by using cognitive organizers strategy and students' reading comprehension taught without using cognitive organizers strategy at the second year of SMAN 13 SIAK?

#### 2. The Limitation of The Problems

Based on the identification of the problems above, it is clear that there are many problems in this research, such as studentscannotrecognize what the topic tells about, students are not able to identify the main idea of narrative text, students are not able to identify the contents of narrative text, students are not able to identify the factual information from the text, thus, the researcher would like tolimitthe influence of using cognitive organizers.

#### 3. The Formulation of The Problems

The problems of this research will be formulated in the following research questions:

- 1. How is students' comprehension on narrative text taught by using cognitive organizers strategyat the second year of SMAN 13 SIAK?
- 2. How is students' comprehension on narrative text taught without using cognitive organizers strategyat the second year of SMAN 13 SIAK?
- 3. Is there any significant difference between students' reading comprehension on narrative text taught by using cognitive organizers strategy and students' reading comprehension taught without using cognitive organizers strategy at the second year of SMAN 13 SIAK?

#### C. The Objective and The Significance of The Research

#### 1. The Objective of The Research

Based on the research questions formulated above, thus, the objectives of this research as follows:

- To find out how is students' reading comprehension on narrative text by using cognitive organizers strategy at the second year of SMAN 13 SIAK
- b. To find out how is students' reading comprehension on narrative text without using cognitive organizers strategy at the second year of SMAN 13 SIAK
- c. To find out is there any significant difference between students' reading comprehension on narrative text taught by using cognitive organizers strategy and students'reading comprehension on narrative text taught without using cognitive organizers strategy at the second year of SMAN 13 SIAK

#### 2. The Significant of The Research

The research activity is significantly carried out for the following needs.

They are:

- To give information to the teacher and the school about the effect of using cognitive organizers strategy toward students' reading comprehension in narrative text
- To give some contributions to the students in order to improve students' reading comprehension in narrative text

- c. To enhance the researcher's knowledge about teaching reading by using cognitive organizers strategy
- d. To fulfill of the requirements to finish the researcher's study in English Education Department of State Islamic University SUSKA Riau.

#### **D.** The Definition of Terms

In order to avoid misunderstanding and misinterpretation in this research, it is crucial to define the key terms in this research as follows:

#### 1. Effect

Effect refers to a result or a change by an action or other cause. Effect in this research is defined the result of teaching by using cognitive organizers strategy toward students' reading comprehension on narrative text.

#### 2. Cognitive organizers

Cognitive organizers are a way to visually depict the relationship between facts terms, and ideas within a learning objective. <sup>10</sup> Cognitive organizers in this research is the strategy that writer will be use toward students' reading comprehension on narrative text.

<sup>&</sup>lt;sup>9</sup> A.S. Hornby, Oxford advance Learner's of Current English, (Oxford: Oxford UniversityPress, 2000)369

<sup>&</sup>lt;sup>10</sup>Jill C. Chalk, The Effects of Cognitive Organizers on the Comprehension and Retention Ability for High School Students with Learning Disabilities (2006)2

### 3. Reading

Reading is defined as "the activity of looking at and understanding written words." From the teaching perspective, the emphasis should be on the word understanding.<sup>11</sup>

#### 4. Comprehension

The identification of the intended meaning of written or spoken communication. Comprehension in this research is students understanding in reading narrative text.

#### 5. Narrative text

The text to amuse or entertain the readers with actual or imaginary experiences in differences ways. Narrative always deals with some problems which lead to the climax and then turn into a solution to the problem.<sup>13</sup>

<sup>&</sup>lt;sup>11</sup> Judy Tilton Brunner, *I Don't Get It! Helping Students Understand What They Read*. (USA: Judy Tilton Brunner, 2011)41

Tilton Brunner, 2011)41

<sup>12</sup> Jack C. Richards and Richard Schmidt, *Longman Dictionary of Language Teaching and Applied Linguistics*. (Malaysia: Pearson Education Limited, 2010)108

<sup>&</sup>lt;sup>13</sup>Th.M. sudarwati.*Look Ahead an English Course for Senior High School Students Year X.* (Jakarta: Erlangga, 2007)62

#### **CHAPTER II**

#### RIVIEW OF RELATED THEORIES

#### A. The Theoretical Framework

#### 1. The Nature of Reading

Reading is a complex process involving a network of cognitive actions that work together to construct meaning. A reader's comprehension is influenced a range of internal factors, including perceptions, beliefs, motivation, and problem-solving strategies. Comprehension results from the mind's ability to make links and askquestions regarding the particular reading event. If the mind cannot formulate questions about the reading, true comprehension is impossible. When teaching for comprehension, our challenge is twofold: (1) to understand the complexity of the comprehending process, and (2) to apply this knowledge to our work with students. Reading is an important language skill. As one of the basic skills of English, reading is a communication process requiring a series of skill.

Collin stated that he emphasizes the importance of reading in relation to human development.<sup>15</sup> It means more students read more knowledge that they will get. They also can make their knowledge more than before. It can be happened if they can comprehend the text well. Reading determines how the students are able to think, that it has a fundamental effect on the development of imagination, and thus exerts a powerful influence on the development of emotional and moral as well as verbal intelligence and therefore on the kind of person they are capable of

<sup>&</sup>lt;sup>14</sup>Linda J. Dorn and Carla Soffos, *Teaching for Deep Comprehension: A Reading Workshop Approach*. (New York: Stenhouse Publishers, 2005)6

<sup>&</sup>lt;sup>15</sup> Collin Harrison, *Understanding Reading development*, (London: SAGE Publications, 2004)3

becoming.<sup>16</sup> Thus, reading needs knowledge to comprehend the texts. Because, by getting knowledge the reader can get information from the texts.

#### 2. The Purposes of Reading

When the reader, the reader for a variety of purposes. The reader sometimes read to get the main idea but not much more (e.g., skimming a newspaper story), and sometimes we read to locate specific information (e.g., scanning for a name, date, or term). Commonly we read texts to synthesize information from multiple texts, or from a longer chapter or book, in order to take a critical position with respect to that information (i.e., reading to integrate and evaluate information). Perhaps most often, we read for general comprehension (i.e., reading to understand main ideas and relevant supporting information). We also read for pleasure, with the intention of being entertained or informed, but not tested. <sup>17</sup>

In academics setting, almost very major purpose for reading comes into play. Thus, an English Academic Major (EAP) reading curriculum must account for multiple purposes, including at least the reading.<sup>18</sup>

- 1. To search for information
- 2. For general comprehension
- 3. To learn new information
- 4. To synthesize and evaluate information.

<sup>16</sup>Ibid

<sup>&</sup>lt;sup>17</sup> Marianne Celce, *Teaching English as a Second Foreign Language Third Edition*, (New York: A Division of Thomson Learning, Inc. ,2001)187

<sup>&</sup>lt;sup>18</sup>Ibid

#### 3. Types of reading

Alyousef says that there are two types of reading, they are: 19

#### a. Extensive Reading

There have been conflicting definitions of the term "extensive reading." Some use it to refer to describe "skimming and scanning activities," others associate it toquantity of material. Hedge in Hesham Suleiman Alyousef states that extensive reading helps in developing reading ability. Moreover, extensive reading enables learners to achieve their independency by readingeither in class or at home, through Sustained Silent Reading (SSR). Carrell and Eisterholdin Alyousef argue that SSR activity can be effective in helping learners become self-directed agents seeking meaning provided an SSR program is "based on student-selected texts so that the students will be interested in what they are reading. Students select their own reading texts with respect to content, level of difficulty, and length." Thus, extensive reading can help students to develop reading ability; moreover it is very interesting for students, because the material depend on students interested read.

#### b. Intensive Reading

In intensive (or creative) reading, students usually read a page to explore the meaning and to be acquainted with writing mechanisms. Hedge argues that it is "only through moreextensive reading that learners can gain substantial practice in operating these strategies more independently on a range of materials." These strategies can be either text-relatedor learner-related: the former includes an

 $<sup>^{19}</sup> Hesham \ Suleiman \ Alyousef, "Teaching Reading Comprehension to ESL/EFL Learners", The Reading Matrix, vol. 5, No. 2 , September 2005$ 

awareness of text organization, while the latter includes strategies like linguistic, schematic, and metacognitive strategies.

Supported by Nunan, reading is an essential skill for learners of English as a second language. For most of these learners it is the most important skill to master in order to ensure success not only in learning English, but also in learning in any content class where reading in English is required. Nunan says that there is type of reading, that is:

#### a. Silent reading

Reading is primarily a silent activity. The majority of reading that we do will be done silently. In western cultures oral reading was the primary practice until the nineteenth century. Today, many teachers still believe that oral reading is the best approach for teaching. Different strategies are used when reading orally than reading silently. Since comprehension is the goal of reading, your primary in the classroom should be on getting meaning from print. Make silent reading the goal in your classroom instead of using oral reading. Thus, silent reading is reading activity where the students read the text silently in classroom.

Furthermore, I.S.P Nation provides other types of reading as follows:

#### a. Reading aloud

Reading aloud are useful activities for working on oral reading and they have just as much value in the second language class. The common activities are that learner reading aloud, trying to convey the massages of the text and interested listener.<sup>20</sup> Reading aloud to the students is one way to encourage reading,

<sup>&</sup>lt;sup>20</sup> I.S.P Nation, *Teaching ESL/ESL Reading and Writing* (New York: Routledge, 2009)68

modelfluent reading, and share reader response.<sup>21</sup>In short, reading aloud is an activity done by students by reading texts loudly.

#### 4. Teaching reading

Reading skill is one component that involved in curriculum in language teaching that has to be taught by the research. Teaching reading usually has at least two aspects. First, it can be to teaching learning who are learning to read to the very first time. Second, aspect of teaching reading refers to teaching learning that already have reading skill in their first language. In addition, there are eight principles for teaching reading, they are:<sup>22</sup>

- 1. Exploit the reader's background knowledge
- 2. Build a strong vocabularies base
- 3. Teach for comprehension
- 4. Work in increasing reading rate
- 5. Teach reading strategy
- 6. Encourage readers to transform strategies into skills
- 7. Build assessment and evaluation into your teaching
- 8. Strive for continuous improvement as a teacher's reading.

The importance of teaching reading:<sup>23</sup>

<sup>&</sup>lt;sup>21</sup> Emily F. Calhoun, *Teaching Beginning Reading and Writing With the Picture Word Inductive Model* (USA: ASCD, 1999)116

<sup>&</sup>lt;sup>22</sup> David Nunan, *Practical English Language Teaching* (Singapore: McGraw Hill, 2003)74

<sup>&</sup>lt;sup>23</sup>Hesham Suleiman Alyousef, "teaching Reading Comprehension to ESL/EFL Learners", The Reading Matrix, vol. 5, No 2, September 2005

Furthermore, Hedge stated that many reading components of an English language course may include a set of learning goals for:

- The ability to read a wide range of texts in English. This is the long range goal most teachers seek to develop through independent readers outside EFL/ESL classroom.
- 2. Building a knowledge of language which will facilitate reading ability
- 3. Building schematic knowledge
- 4. The ability to adapt the reading style according purpose (i.e. skimming and scanning)
- 5. Developing an awareness of the structure of written texts in English
- 6. Taking a critical stance to the contents of the text

The last goal can be implemented at an advanced level. Students, however, should be kept aware that not all internet content is authentic since there are no "get keepers" and anyone can post whatever he/she likes in this cyberspace. Consequently, students can check the authenticity of the text by looking at the following indicators: whether the author or no, the date publication, the aim of the article, etc

#### 5. The Nature of Reading Comprehension

Reading comprehension involves much more than readers' responses to text.

Reading comprehension is a multicomponent, highly complex process that involves many interactions between readers and what they bring to the text (previous knowledge, strategy use) as well as variables related to the text itself

(interest in text, understanding of text types). <sup>24</sup>Thus, reading comprehension is defined as the level of understanding of a text/message. This understanding comes from the interaction between the words that are written and how they trigger knowledge outside the text/message.

Reading comprehension as the process of simultaneously extracting and constructing meaning through interaction and involvement with written language. We use the words extracting and constructing to emphasize both the importance and the insufficiency of the text as a determinant of reading comprehension. Comprehension entails three elements:<sup>25</sup>

#### The *reader* who is doing the comprehending a.

To comprehend, a reader must have a wide range of capacities and abilities. These include cognitive capacities (e.g., attention, memory, critical analytic ability, inference, visualization ability), motivation (a purpose for reading, an interest in the content being read, self-efficacy as a reader), and various types of knowledge (vocabulary, domain and topic knowledge, linguistic and discourse knowledge, knowledge of specific comprehension strategies). Of course, the specific cognitive, motivational, and linguistic capacities and the knowledge base called on in any act of reading comprehension depend on the texts in use and the specific activity in which one is engaged. Fluency can be conceptualized as both an antecedent to and a consequence of comprehension. Some aspects of fluent,

<sup>24</sup>Janette K. Klingner, at al, *Teaching Reading Comprehension to Students with the Learning* 

Difficulties, (New York: The Guilford press, 2007)23 <sup>25</sup> Catherine Snow, Chair, Reading for Understanding toward an R&D Programming Reading Comprehension, (Arlington: RAND Education, 2002)11

expressive reading may depend on a thorough understanding of a text. However, some components of fluency— quick and efficient recognition of words and at least some aspects of syntactic parsing—appear to be prerequisites for comprehension. As a reader begins to read and completes whatever activity is at hand, some of the knowledge and capabilities of the reader change.

#### b. The *text* that is to be comprehended

The features of text have a large effect on comprehension. Comprehension does not occur by simply extracting meaning from text. During reading, the reader constructs different representations of the text that are important for comprehension. These representations include, for example, the surface code (the exact wording of the text), the text base (idea units representing the meaning), and a representation of the mental models embedded in the text.

#### c. The *activity* in which comprehension is a part.

Activity refers to this dimension of reading. A reading activity involves oneor more purposes, some operations to process the text at hand, and the consequences of performing the activity. Prior to reading, a reader has a purpose, which can be either externally imposed (e.g., completing a class assignment) or internally generated. The purpose is influenced by a cluster of motivational variables, including interest and prior knowledge. The initial purposes can change as the reader reads. That is, a reader might encounterinformation that raises new questions that make the original purpose either incomplete or irrelevant.

#### 6. The Nature of Narrative text

Narrative text relates a realistic, imagined or fictitious story. It is written to entertain or amuse and interest the reader but simultaneously teaches, explains or informs. <sup>26</sup>Narrative text is consists of certain structure. The structure refers to the way in which the ideas in the text are interrelated in order to convey a message to the reader. Thus, narrative is a text that can entertain and amuse the reader by providing fictitious story.

#### a. Generic Structures of Narrative Text

Here are generic structures of:<sup>27</sup>

#### 1. Orientation

This sets the scene, creating a visual picture of setting, atmosphere and time of story. Characters and some minor characters are introduced with some detail about their personalities, attitudes and appearance. The clues are set in place for the coming complication. Thus, orientation is about character, such as, personalities, attitudes, and appearance.

#### 2. Complication

This resolved around conflicts or problem that affects the setting, time or characters. The hero is prevented from reaching his or her goal. A problem or series of problem interrupt or complicate the lives of characters. Thus, complication is problems happened in the story.

<sup>&</sup>lt;sup>26</sup>John Barwick, *Targeting Text upper Level*, (Singapore: Blake Education, 2006)4

#### 3. Series of event

The story continuous through a series of expected and unexpected events create the contents of the story. The events can change becoming sad, humor, joy, and many more emotional conditions. Thus, it is about the events in the story, it can be expected and unexpected events.

#### 4. Resolution

The resolution brings the series of events to a close and resolves the main problem, challenge or situation. A solution is discovered to solve the problems or challenge. Thus, it is about giving solution or how to solve the problems.

#### 5. Reorientation/coda

Some narratives texts have a coda or reorientation that returns the reader to present and sums up the events. Thus, it is about moral value in the story.

#### **6.** The Nature of Cognitive Organizers

#### a. The definition of cognitive organizers

Cognitive organizers strategy is a way to visually depict the relationship between facts, terms, and ideas within a learning objective. <sup>28</sup>Cognitive organizers often employ mnemonic devices that cue students to thesteps of the strategy. Although cognitive organizers can be used with students ofall ages, they are frequently used with older students who can learn to use thesteps

<sup>&</sup>lt;sup>28</sup> Jill C. Chalk, *The Effects Of Cognitive Organizers On The Comprehension And Retention Ability For High School Students With Learning Disabilities* (2006)2

independently.<sup>29</sup>Specifically, students were taught to apply the cognitive organizer as a strategy for comprehending.

Boyleet all in Jill C. Chalk says thatCognitive organizers are a way to visually depict the relationship between facts, terms,and ideas within a learning objective. Cognitive organizers are frequently used to assist with note-taking, comparingand contrasting concepts, organizing problems and solutions, cause and effect, andidentifying relationships between ideas and concepts. They can be used prior to learning new information as a way to facilitate prior knowledge and introduce a task or they can be used after the student has learned the information as a way to comprehendand retain information. <sup>30</sup>Cognitiveorganizers have been widely researched across subject areas for their effectiveness in improvingstudent outcomes and increasing active engagement. <sup>31</sup>Cognitive organizers have been researched in a range of subject areas and across mostgrade levels. In all, reading comprehension has been the most studied application for usingcognitive organizers. <sup>32</sup>

Smith and Hessein Larry Andrew investigated the effects caused by cognitive organizers on eleventh grade students' comprehension of and attitudestoward a 1700-word prose selection. As described by the investigators, the cognitive organizers provides the reader, before a selection is *read*, *general* information about the topic in the material about to be read and previews the sequence of the events or episodes as they appear in the selection. Smith and

<sup>&</sup>lt;sup>29</sup> Janette K. Klingner, at al, *Teaching Reading Comprehension to Students with the Learning Difficulties*, (New York: The Guilford press, 2007)119

<sup>&</sup>lt;sup>30</sup>Op.Cit, p. 34

<sup>&</sup>lt;sup>31</sup>Op.Cit, p. 2

<sup>&</sup>lt;sup>32</sup>Op.Cit, p. 2

Hesseconcluded that both "good" and "poor" readers who listened to a cognitive organizers before reading a selection had better attitudes toward that selection thandid students who did not hear it. Although the cognitive organizers were of doubtful valuein improving the reading comprehension of good readers, it had a significant effect upon the retention of the main idea by poor readers.<sup>33</sup>

Chalk stated that the use of cognitive organizers is an effective tool forincreasing content comprehension. Cognitive organizers are a type of learning strategy that hasproven to be effective despite the grade level, content area, or type of student.<sup>34</sup> Students can use cognitive organizers to generate ideas, record and recognize information, and see relationships. Cognitive organizers demonstrate not only what students are thinking as they work through learning tasks.<sup>35</sup>By making students actively engaged in their learning process throughthe use of cognitive organizersstudents will hopefully form positive attitudestoward the subject being taught and gain a level of confidence in knowledge and skills. Cognitiveorganizers also are being used to inspire and motivate students to explore the subject further.<sup>36</sup>

Results indicated that the groupthat used student-generated cognitive organizers outperformed both the expertgenerated and the control group on

<sup>&</sup>lt;sup>33</sup>Larry Andrew, "Reading Comprehension And Three Modes Of Prereading Assistance", vol. 5, No. 4 (1972)238

<sup>&</sup>lt;sup>34</sup>Jill C. Chalk, *The Effects Of Cognitive Organizers On The Comprehension And Retention Ability For High School Students With Learning Disabilities* (2006)38

<sup>&</sup>lt;sup>35</sup>Alberta, Health and Life Skills Guide to Implementation, (2002)18

<sup>&</sup>lt;sup>36</sup> Op.Cit, p. 4

comprehension measures. The group that usedstudent-generated organizers learned the following strategy steps (TRAVEL):<sup>37</sup>

T—Topic: Write down the topic.

R—Read: Read the paragraph.

A—Ask: Ask what the main idea and three details are and write them down.

V—Verify: Verify the main idea and linking details.

E—Examine: Examine the next paragraph and verify again.

L—Link: When finished, link all of the main ideas.

To teach students how to use cognitive organizers:<sup>38</sup>

Furthermore, Alberta provides how to use cognitive organizers:

- 1. Use cognitive organizers to plan and introduces the lessons
- 2. Use easy or familiar material
- 3. Give students opportunities to practice with easy material
- 4. Coach them at various point in the process
- 5. Share final products; discuss what worked and what did not, and give students and opportunity to revise information

Furthermore, Lisa Hawthorne Ulmer says that there are two advantages of using cognitive organizers, they are:<sup>39</sup>

- 1. Increase students' achievement in the classroom effectively
- 2. Increase rates of response with new vocabulary words or help students maintain a continued higher level of fluency in that subject area.

<sup>&</sup>lt;sup>37</sup> Janette K. Klingner, at al, *Teaching Reading Comprehension to Students with the Learning Difficulties*, (New York: The Guilford press, 2007)119

<sup>&</sup>lt;sup>38</sup>Alberta, *Health and Life Skills Guide to Implementation*, (2002)18

<sup>&</sup>lt;sup>39</sup>Lisa Hawthurne Ulmer, *The Effect of Cognitive Organizers and Precision Teaching Strategy to Facilitate Vocabulary Instruction among High School Students with Mild Disabilities*, (2008)17

# 7. Cognitive Organizers toward Students' Reading Comprehension on Narrative Text

Cognitive organizers are a type of learning strategy that has proven to be effective despite the grade level, content area, or type of student. <sup>40</sup>Cognitive organizers have been researched in a range of subject areas and across most grade levels. In all, reading comprehension include narrative text has been the most studied application for using cognitive organizers. <sup>41</sup>

The complete procedures in teaching reading narrative text by using cognitive organizers strategy will come as follows:<sup>42</sup>

- 1. The teacher writes down the topic on the white board
- 2. Teacher asks students to read narrative text
- The teacher asks students about the main idea and the details and ask them to write down the main idea and details
- 4. The teacher verifies the main idea and link the details
- 5. The teacher examines the next paragraph and verify again
- 6. When finished, teacher asks students to link all of the main ideas

<sup>&</sup>lt;sup>40</sup>Jill C. Chalk, *The Effects Of Cognitive Organizers On The Comprehension And Retention Ability For High School Students With Learning Disabilities* (2006)38 <sup>41</sup>Ibid.

<sup>&</sup>lt;sup>42</sup>Op.Cit, p. 119

#### **B.** The Relevant Research

1. A research conducted by Jill C. Chalk entitled *The Effects of Cognitive Organizers on the Comprehension and Retention Ability for High School Students with Learning Disabilities*. The subject of this research is four participants, one was female and three were male. The study participants' racial compositionwas more diverse than the school's demographics; however, there were no students from the Asian ethnic group in the classroom that met the criteria for participant selection. All four participants were in the 10th grade for the first time. The mean chronological age at the time of the study was 16.5 years (range = 15.3to 17.4). The mean IQ score was 95.3 (range = 80 to 110). 43 Jills' research is focused on the Comprehension and Retention Ability for High School Students with Learning Disabilities,. While the writer' research focuses on the using cognitive organizers and students' reading comprehension on narrative text.

#### **C.** The Operational Concept

Operational concept is necessary to clarify briefly the variable used in this research. There are two variables in this research, they are independent or X variable which in this research is The Effect of Using cognitive Organizers Strategy. And the other is independent or Y variable of this research is the students' Reading Comprehension on Narrative Text.

<sup>&</sup>lt;sup>43</sup>jill C. Chalk, *The Effects of Cognitive Organizers on the Comprehension and Retention Ability for High School Students with Learning Disabilities* (2006)46

- 1. The procedures of cognitive organizers strategy are:<sup>44</sup>
  - a. The teacher writes down the topic on the white board
  - b. Teacher asks students to read text
  - c. The teacher asks students about the main idea and the details and ask them to write down the main idea and details
  - d. The teacher verifies the main idea and link the details
  - e. The teacher examines the next paragraph and verify again
  - f. When finished, the teacher asks students to link all of the main ideas
- 2. The indicators of narrative text are:<sup>45</sup>
  - a. Students are able to identify main idea in narrative text
  - b. Students are able find out the factual information
  - c. Students are able to identify the events in the text
  - d. Students are able to identify the characteristics in the text

#### D. The Assumption and the Hypotheses

#### 1. Assumption

In this research, the researcher assumes that the better using cognitive organizers strategy is applied in teaching or learning reading comprehension o narrative text.

<sup>&</sup>lt;sup>44</sup> Janette K. Klingner, at al, *Teaching Reading Comprehension to Students with the Learning Difficulties*, (New York: The Guilford press, 2007)119

<sup>&</sup>lt;sup>45</sup>Syllabus of SMAN 13 SIAK 2011/2012

# 2. Hypotheses

#### a. The Null Hypotheses (H<sub>o</sub>)

There is no significant difference between students' reading comprehension taught by using cognitive organizers strategy and students' reading comprehension taught without using cognitive organizers strategy at the second year of SMAN 13 SIAK.

## b. The Alternative Hypotheses (H<sub>a</sub>)

There is significant difference between students' reading comprehension taught by using cognitive organizers strategy and students' reading comprehension taught without using cognitive organizers strategy at the second year of SMAN 13 SIAK.

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#### **CHAPTER III**

#### RESEARCH METHOD

#### A. The Research Design

The type of this research wasexperimental research which consists of two variables. The first variable is using cognitive organizers strategy as the independent variable (X) and the second is the students' reading comprehension of narrative text as the dependent variable (Y). Gay says that "experimentalresearch is research that can test hypotheses to establish cause and effect relationship. It means that experimental research dealing with different contexts and participants in which it can produce cause-effect result. Moreover, the type of this research was quasi experimental design. Gay says that "quasi experimental design is used when the researcher keeps the students in existing classroom intact and the entire classrooms are assigned to treatments. The researcher used the kinds of quasi experimental design that is "non-equivalent".

In conducting quasi experimental research, the researcher took two classes. The first class was an experimental class which is taught by using cognitive organizers strategy and control class using conventional strategy. Both groups took pretest and posttest and the treatment only gave for treatment class. The model of research design will be illustrated as follows:

<sup>&</sup>lt;sup>46</sup>L.R Gay & peter Airasian. *Educational Research Competencies for Analysis and Application Six Ed.* (New Jersey: Prentice Hall, Inc 2000)395

Table III.1 The Research Design

| Select Control<br>Group      | Pretest | No Treatment              | Posttest |
|------------------------------|---------|---------------------------|----------|
| Select Experimental<br>Group | Pretest | Experimental<br>Treatment | Posttest |

#### В. The Location and the Time of the Research

This research was located on Setia Street, BentengHilir, Siak.It was conducted from Apriluntil May 2013 at Senior High School 13 Siak.

#### C. The Subject and the Object of The Research

The students of the second year of SMAN 13 Siak were the subject of this research, while the objet is using Cognitive organizers Strategy toward students' reading comprehension on Narrative text.

#### D. The Population and the Sample of the Research

The second year students of SMAN 13 Siak were the population of this research which consists of 4 classes. The population is large enoughto be all taken as sample of the research. Based on the design of the research, the researcher took only two classes as the sample of this research by using cluster random sampling. Gay says that cluster random sampling is a way to select a sample by grouping or not individuals. All the members of selected group have similar characteristics.<sup>47</sup> In this case, the researcher chooses XI IPA 1 as an experimental class and XI IPA 2 as a control class

47 Ibid.

Table III.2

The Total Population of the Second Year Students of SMAN 13

Siak

| No | Class    | Popu | Tatal  |       |
|----|----------|------|--------|-------|
| No | Class    | Male | Female | Total |
| 1  | XI IPA 1 | 11   | 14     | 25    |
| 2  | XI IPA 2 | 11   | 14     | 25    |
| 3  | XI IPS 1 | 12   | 15     | 27    |
| 4  | XI IPS 2 | 13   | 16     | 29    |
|    | Total    | 47   | 59     | 106   |

Based on the table above, the second year students of SMAN 13 Siak was the population of this research which consists of 4 classes, the number of population is 106 students.

The specification of the research sample can be seen on the table below:

Total Sample at the Second Year Students of SMAN 13 Siak

**TABLE III.3** 

| No  | Classes  | Popu | Total  |       |
|-----|----------|------|--------|-------|
| INO | Classes  | Male | Female | TOTAL |
| 1   | XI IPA 1 | 11   | 14     | 25    |
| 2   | XI IPA 2 | 11   | 14     | 25    |
|     | Total    | 22   | 28     | 50    |

Based o the table above, the writer used cluster sampling technique to take the sample. XI IPA 1 as experimental class and XI IPA 2 as control class. The number of this sample is 50 students.

# E. The Technique of Data Collection

In this research, the researcher used test. Test means of measuring the knowledge, skill, feelings, intelligence, or aptitude of an individual or group. 48 It is used to measure the students' reading comprehension. Kind of test in this research was multiple choices. Multiple choice questions in the hands of skilled teacher are highly effective instrument for training interpretive skills. 49 The score of narrative text on narrative text were classified in the table below: 50

Table III.4

The Classification of Students' Score

| The Score Level | Category  |  |  |
|-----------------|-----------|--|--|
| 80-100          | Very good |  |  |
| 66-79           | Good      |  |  |
| 56-65           | Enough    |  |  |
| 40-55           | Less      |  |  |
| 30-39           | Fail      |  |  |

## F. The Validity and the Reliability of the Test

# 1. Validity.

Before the tests were given to the sample of this research, both of the tests were tried out 50 students of second year science major. The purpose of the try out was to obtain validity and reliability of the test. The test is said to be valid if it

<sup>&</sup>lt;sup>48</sup>John W. Creswell. *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research.* Third Edition (New Jersey: Pearson Education, 2008)645

<sup>&</sup>lt;sup>49</sup>Christine Nuttall, *Teaching Reading Skills in a Foreign Language*, (London: Heinemann Educational Books, 1983)126

<sup>&</sup>lt;sup>50</sup>SuharsimiArikunto, *Dasar-DasarEvaluasiPendidikan*, (Jakarta: PT BumiAksara, 2011) 245

measures accurately what is intended to measure.<sup>51</sup> It was determined by finding the difficulty level of each item. The formula of item difficulty is as follows:

$$PV = \frac{R}{N}$$

Where:

PV : index of difficulty

R : the number of correct answer

N : students taking test

The difficulty of level of items shows how easy of particular of each item in a test. The items that do not reach the standard level of difficulty are excluding from the test and they would be changed by the new items that are appropriated.

The standard level of difficulty used is < 0.30 and  $> 0.70.^{52}$ it means that the items that accepted if the level of difficulty is between 0.30-0.70 and it is rejected if the level of difficulty is below 0.30 (difficult) and over 0.70 (easy). Then, the proportion is represented by "p", whereas the proportion incorrect is represented by "q".it can be seen from the following tables:

TABLE III.5

The Students are Able to find the Main Ideas

| Variable | Find the main idea |      |      |      |      |      | N    |    |
|----------|--------------------|------|------|------|------|------|------|----|
| Item no. | 1                  | 7    | 8    | 11   | 14   | 18   | 23   |    |
| Correct  | 14                 | 11   | 11   | 11   | 14   | 12   | 14   | 25 |
| Р        | 0.56               | 0.44 | 0.44 | 0.44 | 0.56 | 0.48 | 0.56 | 25 |
| Q        | 0.44               | 0.56 | 0.56 | 0.56 | 0.44 | 0.52 | 0.44 |    |

<sup>&</sup>lt;sup>51</sup>Arthur Huges, *Testing for Language Teacher*, 2<sup>nd</sup> Edition (New York: Cambridge University Press) 26

<sup>&</sup>lt;sup>52</sup>SuharsimiArikunto, *Dasar-DasarEvaluasiPendidikan*. (Jakarta: PT. BumiAksara, 2011)210

Based on the table above, the proportion of correct answer for item number 1 shows the proportion of correct 0.56, item number 7 shows the proportion of correct 0.44, item number 8 shows the proportion of correct 0.44, item number 11 shows the proportion of correct 0.44, item number 14 shows the proportion of correct 0.56, item number 18 shows the proportion of correct 0.48 and item number 23 shows the proportion of correct 0.56. Based on the standard level of difficulty "p" < 0.30 and "q" > 0.70, it is pointed out that item difficulty in average of each items number for finding the main idea are accepted.

TABLE III.6
The Students are Able to Find Factual Information

| Variable |     | Find the factual information |      |      |     |      | N  |
|----------|-----|------------------------------|------|------|-----|------|----|
| Item no. | 3   | 4                            | 12   | 17   | 19  | 25   |    |
| Correct  | 15  | 11                           | 14   | 13   | 15  | 13   | 25 |
| Р        | 0.6 | 0.44                         | 0.56 | 0.52 | 0.6 | 0.52 |    |
| Q        | 0.4 | 0.56                         | 0.44 | 0.48 | 0.4 | 0.48 |    |

Based on the table above, the proportion of correct answer for item number 3 shows the proportion of correct 0.6, item number 4 shows the proportion of correct 0.44, item number 12 shows the proportion of correct 0.56, item number 17 shows the proportion of correct 0.52, item number 19 shows the proportion of correct 0.6 and item number 25 shows the proportion of correct 0.52. Based on the standard level of difficulty "p" < 30 and "q" > 70, it is pointed out that item difficulty in average of each item number for finding factual information are accepted.

TABLE III.7
The Students are able to Identify Events

|          |      | •                  |      |      |      |      |    |
|----------|------|--------------------|------|------|------|------|----|
| Variable |      | Identifying events |      |      |      |      |    |
| Item     | 5    | 10                 | 13   | 16   | 21   | 24   |    |
| no.      |      |                    |      |      |      |      |    |
| Correct  | 9    | 11                 | 13   | 12   | 12   | 14   | 25 |
| Р        | 0.36 | 0.44               | 0.52 | 0.48 | 0.48 | 0.56 |    |
| Q        | 0.64 | 0.56               | 0.48 | 0.52 | 0.52 | 0.44 |    |

Based on the table above, the proportion of correct answer for item number 5 shows the proportion of correct 0.36, item number 10 shows the proportion of correct 0.44, item number 13 shows the proportion of correct 0.52, item number 16 shows the proportion of correct 0.48, item number 21 shows the proportion of correct 0.48 and item number 24 shows the proportion of correct 0.56. Based on the standard level of difficulty "p" <30 and "q" > 70, it is pointed out that item difficulties in average of each item number for identifying events are accepted.

TABLE III.8

The Students are Able to Identify Characters

| Variable |     | Identifying characters |     |      |      |      |    |
|----------|-----|------------------------|-----|------|------|------|----|
| Item     | 2   | 6                      | 9   | 15   | 20   | 22   |    |
| no.      |     |                        |     |      |      |      |    |
| Correct  | 15  | 11                     | 15  | 17   | 14   | 12   | 25 |
| Р        | 0.6 | 0.44                   | 0.6 | 0.68 | 0.56 | 0.48 |    |
| Q        | 0.4 | 0.56                   | 0.4 | 0.32 | 0.44 | 0.52 |    |

Based on the table above, the proportion of correct answer for item number 2 shows the proportion of correct 0.6, item number 6 shows the proportion of correct 0.44, item number 9 shows the proportion of correct 0.6, item number 15

shows the proportion of correct 0.68, item number 20 shows the proportion of correct 0.56 and item number 22 shows the proportion of correct 0.48.

#### 2. Reliability

Brown says that, reliability has to do with accuracy of measurement. This kind of accuracy was reflected in obtaining of similar results when measurement was repeated on different occasions or with different instruments or by different persons. The characteristic of reliability was sometimes term consistency.<sup>53</sup> Meaning that, the test was reliable when an examiner's results were consistent on repeated measurement.

To obtain the reliability of the test, it must know the mean and standard deviation of test. Reliability in general refers to appropriateness of a given test of ay of its component part as measure of what it was purposed to measure. It means the test will be valid to the extent that was measured what it was supposed to measure.

The reliability coefficients for good identified kinds of structure text and reading comprehension test were expected to exceed 0.0 and closed 1.00. Heaton states that, the reliability of the test was considered as follows:

1. 
$$0.0 - 0.20$$
 = reliability is low

2. 0.21 - 0.40 = reliability is sufficient

3. 0.41 - 0.70 = reliability is high

4. 0.71 - 1.0 = reliability is very high<sup>54</sup>

<sup>&</sup>lt;sup>53</sup> H. Douglass Brown, *Language Assesment: Principles and Classroom Practices*. (New Rork: Pearson Education Inc, 2003)19

<sup>&</sup>lt;sup>54</sup>J.B. Heaton, *Writing English Language Tests*. (New York: Cambridge University Press, 1988)164

To obtain the reliability of the test given, the writer used the formula as follows:<sup>55</sup>

KR 20: ri = 
$$\frac{k}{(k-1)} \frac{s_{\underline{t}^2} - \sum piqi}{s_{\underline{t}^2}}$$

Where:

K : number of items in the instrument

Pi : proportion of subject who answered the item correctly

Qi : proportion of subject who answered the item wrong (1-pi)

piqi : the multiplication result between p and q

 $S_t^2$ : total variance

Firstly the writer calculates the total variance:

$$s_{t^2} = \frac{x^2}{n}$$

Where:

n : number of respondents

$$x^{2} = \sum xt^{2} - \frac{(\sum xt)^{2}}{n}$$

$$= 4305 - \frac{(314)^{2}}{25}$$

$$= 4305 - \frac{98596}{25}$$

$$= 4305 - 3943.8$$

$$= 361.2$$

<sup>55</sup>Sugiyono. Statistikuntuk Penelitian (Bandung: Alfabeta, 2007) 359

$$s_{t^2} = \frac{361.2}{25}$$

$$= 14.4$$

$$ri = \frac{k}{(k-1)} \frac{s_{t^2} - \sum piqi}{s_{t^2}}$$

$$ri = \frac{25}{(25-1)} \quad \frac{14.4 - 6.03}{14.4}$$

$$ri = \frac{25}{24} \quad \frac{8.37}{14.4}$$

$$ri=1.04\times0.58$$

$$ri = 0.60$$

Based on the result above it also can be stated that the reliability was high.

## **G.** The Technique of Data Analysis

In analyzing the students' reading comprehension on narrative text, the writer used graduated standard of English lesson in SMAN 13Siak (SKL). It was 70 for students' reading comprehension on narrative text. It means that for those who got score > 70, they pass the graduated standard (SKL). While for those who got score < 70 they don't pass the graduated standard (SKL).

In analyzing the data, the writer used the statistical calculation of independent sample T-test formula. The independent sample T-test used to find out the significant difference between students' reading comprehension on narrative text taught by using cognitive organizers strategy and students' reading comprehension on narrative text taught without using cognitive organizers strategy. The data analyzed by using SPSS 16.0 Version.

The T-table was employed to see whether or not there was any significant difference gain score in both experimental and control class.

Statistically hypothesis:

- 1.  $H_0 = t_0 < t$ -table
- 2.  $H_a = t_0 > t$ -table

#### **CHAPTER IV**

#### THE DATA PRESENTATION AND THE DATA ANLYSIS

# A. The Description of the Data

The purpose of this research is to obtain the difference between students' reading comprehension who are taught by using cognitive organizers strategy and those who are not taught by using cognitive organizers strategy at the second year of SMAN 13 Siak. The data were obtained from students' post-test scores of experimental and control class.

The data were obtained by giving posttest to the experiment and control class. The result of reading test was evaluated by concerning four components, they are:

- a. Students are able to identify main idea in narrative text
- b. Students are able find out the factual information
- c. Students are able to identify the events in the text
- d. Students are able to identify the characteristics in the text

The totals of the test for both classes were significant difference. The total score of the experimental class was 3252 while the highest score was 88 and the lowest was 40. The total score of control class was 2992 while the highest score was 80and the lowest score was 36.

## **B.** The Data Presentation

There was one data of presentation that were served by the researcher. It was; the data from pretest and posttest and it was:

# 1. The Data Presentation of Reading Comprehension

a. Students' Reading Comprehension Taught by Using Cognitive Organizers Strategy

The data of students' reading comprehension taught by using cognitive organizers strategy were gotten from pretest of students XI IPA1 as an experimental class taken from the sample of this class (25 students). The data can be seen from the table below:

TABLE IV.1

The score of the students' reading comprehension taught by using cognitive organizers strategy

|    |            | EXPERIMENTAL CLASS |           |            |  |
|----|------------|--------------------|-----------|------------|--|
| No | Students   | PRE-TEST           | POST-TEST | Gain Score |  |
| 1  | Student 1  | 40                 | 60        | 20         |  |
| 2  | Student 2  | 48                 | 60        | 12         |  |
| 3  | Student 3  | 52                 | 68        | 16         |  |
| 4  | Student 4  | 72                 | 76        | 4          |  |
| 5  | Student 5  | 72                 | 80        | 8          |  |
| 6  | Student 6  | 64                 | 72        | 8          |  |
| 7  | Student 7  | 48                 | 60        | 12         |  |
| 8  | Student 8  | 64                 | 76        | 12         |  |
| 9  | Student 9  | 60                 | 76        | 16         |  |
| 10 | Student 10 | 60                 | 72        | 12         |  |
| 11 | Student 11 | 72                 | 88        | 16         |  |
| 12 | Student 12 | 48                 | 64        | 16         |  |
| 13 | Student 13 | 68                 | 80        | 12         |  |
| 14 | student 14 | 48                 | 64        | 16         |  |
| 15 | Student 15 | 60                 | 76        | 16         |  |
| 16 | Student 16 | 56                 | 72        | 16         |  |
| 17 | Student 17 | 64                 | 76        | 12         |  |
| 18 | Student 18 | 60                 | 76        | 16         |  |
| 19 | Student 19 | 72                 | 84        | 12         |  |
| 20 | Student 20 | 48                 | 56        | 8          |  |
| 21 | Student 21 | 64                 | 76        | 12         |  |
| 22 | Student 22 | 60                 | 72        | 12         |  |
| 23 | Student 23 | 48                 | 60        | 12         |  |
| 24 | Student 24 | 52                 | 64        | 12         |  |
| 25 | Student 25 | 68                 | 76        | 8          |  |
| '  | Total      | 1468               | 1784      | 316        |  |

From table IV.1, the writerfound that the total of pre-test in experimental class was 1468 while the highest was 72 and the lowest was 40 and the total score of pos-test in experimental class was 1784 while the highest score was 88 and the lowest score was 60. The frequency score of pretest and posttest which was significantly different and it can be seen below:

TABLE IV.2

The Frequency Score of Pre-test of Experimental Class

| Score | Frequency | Percent | Valid Percent | Cumulative<br>Percent |
|-------|-----------|---------|---------------|-----------------------|
| 40    | 1         | 4.0     | 4.0           | 4.0                   |
| 48    | 6         | 24.0    | 24.0          | 28.0                  |
| 52    | 2         | 8.0     | 8.0           | 36.0                  |
| 56    | 1         | 4.0     | 4.0           | 40.0                  |
| 60    | 5         | 20.0    | 20.0          | 60.0                  |
| 64    | 4         | 16.0    | 16.0          | 76.0                  |
| 68    | 2         | 8.0     | 8.0           | 84.0                  |
| 72    | 4         | 16.0    | 16.0          | 100.0                 |
| Total | 25        | 100.0   | 100.0         |                       |

From the table above, it shows that there was 1 student who got score 40 (4%); there were 6 students who got 48 (24%); there were 2 students who got 52 (8%); there was 1 students who got 56(4%); there were 5 students who got 60 (20%); there were 4 students who got 64(16%); there were 2 students who got 68(8%); there were 4 students who got 72(16%).

TABLE IV.3

The Frequency Score of Post-test of Experimental Class

| Score | Frequency | Percent | Valid Percent | Cumulative<br>Percent |
|-------|-----------|---------|---------------|-----------------------|
| 56    | 1         | 4.0     | 4.0           | 4.0                   |
| 60    | 4         | 16.0    | 16.0          | 20.0                  |
| 64    | 3         | 12.0    | 12.0          | 32.0                  |
| 68    | 1         | 4.0     | 4.0           | 36.0                  |
| 72    | 4         | 16.0    | 16.0          | 52.0                  |
| 76    | 8         | 32.0    | 32.0          | 84.0                  |
| 80    | 2         | 8.0     | 8.0           | 92.0                  |
| 84    | 1         | 4.0     | 4.0           | 96.0                  |
| 88    | 1         | 4.0     | 4.0           | 100.0                 |
| Total | 25        | 100.0   | 100.0         |                       |

Based on the table above, it shows that was 1 student who got score 56(4%); there were 4 students who got score 60 (16%); there were 3 students who got 64 (32%); there was 9 students who got score 68 (4%); there were 4 students who got score 72 (4%); there were 8 students who got score 76 (32%); there were 2 students who got 80 (8%); there was 1 students who got 84(4%) and there was 1 student got 88(4%).

Besides, the mean (Mx) and Standard Deviation (d) were also needed in analyzing data gotten from the score of pre-test and post-test. In determining the mean and standard deviation, the researcher used the software SPSS 16 version to calculate it. The mean and the standard deviation of pre-test and post-test are as in the following table:

TABLE IV.4

The mean and standard deviation of pre-test and post-test of experimental class

|           | Mean  | Std. Deviation |
|-----------|-------|----------------|
| Pre-test  | 58.72 | 9.432          |
| Post-test | 71.36 | 8.381          |

From the table IV.3, the distance between mean (Mx) and standard deviation (d) is too far. In other words, the scores obtained are normal. Then the writer classified the post-test result of experimental class of the students at the second year of SMAN 13 Siak to know the category of the students' reading comprehension scores. The classification can be seen from the following table:

TABLE IV.5

The Classification of Experimental Class Score (Post-Test)

| No | Categories | Score  | Frequency | Percentage |
|----|------------|--------|-----------|------------|
| 1  | Very Good  | 80-100 | 4         | 16%        |
| 2  | Good       | 66-79  | 13        | 52%        |
| 3  | Enough     | 56-65  | 8         | 32%        |
| 4  | Less       | 40-55  | -         | 0%         |
| 5  | Fail       | 30-39  | -         | 0%         |
|    | Total      |        | 25        | 100%       |

Based on the table above, it can be seen that there are 5 categories for students' reading comprehension of experimental class. The frequency of Very Good category is 4 students (16%), the frequency of Good category is 13 students (52%), the frequency of Enough category is 8 students (16%), there is no students who is categorized into Less and Fail category. The table shows that the highest percentage of experimental class is 52%. Thus, the majority of the students in experimental class are classified as Good.

# b. Students' Reading Comprehension taught without Using Cognitive Organizers Strategy

The data of students' reading comprehension taught without using cognitive organizers strategy were also taken from pre-test and post-test of IPA2 as control class taken from the sample of this class (25) students:

TABLE IV.6

Table score of students' reading comprehension taught without using cognitive organizers strategy

| NO | Students    | Contro   | ol class  | Coin Soons |
|----|-------------|----------|-----------|------------|
| NO | Students    | Pre-test | Post-test | Gain Score |
| 1  | Students 1  | 44       | 48        | 4          |
| 2  | Students 2  | 44       | 48        | 4          |
| 3  | Students 3  | 48       | 56        | 8          |
| 4  | Students 4  | 52       | 56        | 4          |
| 5  | Students 5  | 56       | 64        | 8          |
| 6  | Students 6  | 52       | 56        | 4          |
| 7  | Students 7  | 60       | 64        | 4          |
| 8  | Students 8  | 68       | 76        | 8          |
| 9  | Students 9  | 48       | 52        | 4          |
| 10 | Students 10 | 40       | 48        | 8          |
| 11 | Students 11 | 64       | 72        | 8          |
| 12 | Students 12 | 72       | 76        | 4          |
| 13 | Students 13 | 72       | 76        | 4          |
| 14 | Students 14 | 56       | 64        | 8          |
| 15 | Students 15 | 56       | 64        | 8          |
| 16 | Students 16 | 36       | 40        | 4          |
| 17 | Students 17 | 60       | 64        | 4          |
| 18 | Students 18 | 56       | 64        | 8          |
| 19 | Students 19 | 76       | 80        | 4          |
| 20 | Students 20 | 52       | 60        | 8          |
| 21 | Students 21 | 60       | 64        | 4          |
| 22 | Students 22 | 60       | 68        | 8          |
| 23 | Students 23 | 72       | 76        | 4          |
| 24 | Students 24 | 60       | 64        | 4          |
| 25 | Students 25 | 60       | 68        | 8          |
|    | Total       | 1424     | 1568      | 144        |

From the table IV.5, the writer found that the total score of pre-test in control class was 1424 while the highest score was 72 and the lowest was 36 and

the total score of post-test in control class was 1568 while the highest score was 80 and the lowest score was 40.

It means that the students had significant increasing of their reading comprehension, and it was not as experimental class. Besides, the mean of pre-test and pos-test of control class and experimental class also had big difference. The frequency score and the mean of pre-test and post-test of control can be seen of the following table below:

TABLE IV.7

The Frequency Score of Pre-test of Control Class

| Score | Frequency | Percent | Valid Percent | Cumulative<br>Percent |
|-------|-----------|---------|---------------|-----------------------|
| 36    | 1         | 4.0     | 4.0           | 4.0                   |
| 40    | 1         | 4.0     | 4.0           | 8.0                   |
| 44    | 2         | 8.0     | 8.0           | 16.0                  |
| 48    | 2         | 8.0     | 8.0           | 24.0                  |
| 52    | 3         | 12.0    | 12.0          | 36.0                  |
| 56    | 4         | 16.0    | 16.0          | 52.0                  |
| 60    | 6         | 24.0    | 24.0          | 76.0                  |
| 64    | 1         | 4.0     | 4.0           | 80.0                  |
| 68    | 1         | 4.0     | 4.0           | 84.0                  |
| 72    | 3         | 12.0    | 12.0          | 96.0                  |
| 76    | 1         | 4.0     | 4.0           | 100.0                 |
| Total | 25        | 100.0   | 100.0         |                       |

From the table above, it shows that there was 1 students who got score 36 (4%); there was 1 student who got score 40 (4%); there were 2 students who got score 44 (8%); there were 3 students who got score 52 (12%); there were 4 student who got score 56 (16%); there were 6 students who got 60 (24%); there was 1

student who got 64 (4%); there was 1 student who got 68 (4%); there were 3 students who got 72 (12%) and there was 1 student who got 76 (4%).

TABLE IV.8

The Frequency Score of Post-test of Control Class

| Score | Frequency | Percent | Valid Percent | Cumulative<br>Percent |
|-------|-----------|---------|---------------|-----------------------|
| 40    | 1         | 4.0     | 4.0           | 4.0                   |
| 48    | 3         | 12.0    | 12.0          | 16.0                  |
| 52    | 1         | 4.0     | 4.0           | 20.0                  |
| 56    | 3         | 12.0    | 12.0          | 32.0                  |
| 60    | 1         | 4.0     | 4.0           | 36.0                  |
| 64    | 8         | 32.0    | 32.0          | 68.0                  |
| 68    | 2         | 8.0     | 8.0           | 76.0                  |
| 72    | 1         | 4.0     | 4.0           | 80.0                  |
| 76    | 4         | 16.0    | 16.0          | 96.0                  |
| 80    | 1         | 4.0     | 4.0           | 100.0                 |
| Total | 25        | 100.0   | 100.0         |                       |

From the table above, it shows that there was 1 student who got score 40 (4%); there were 3 students who got score 48 (12%); there were 1 student who got score 52 (4%); there were 3 students who got score 56 (12%); there was 1 student who got 60 (4%); there were 8 students who got 64 (32%); there were 2 students who got 68 (8%); there was 1 student who got 72 (4%); there were 4 students who got 76 (16%) and there was 1 student who got 80 (4%).

Besides the mean (Mx) and Standard Deviation were also needed in analyzing data gotten from the score of pre-test and post-test. In determining the mean and standard deviation, the writer used the software SPSS 16 version to

calculate it. The mean and standard deviation of pre-test and post-test are as in the following table:

TABLE IV.9

The mean and standard deviation of pre-test and post-test of control class

| Pre-test  | Mean  | Std. deviation |
|-----------|-------|----------------|
|           | 59.96 | 10.346         |
| post-test | 62.72 | 10.374         |

From the table above, the distance between mean (Mx) and standard Deviation (d) is too far. In other words, the scores obtain are normal. Then the writer classified the post-test result of control class of the students at the second year of SMAN 13 Siak to know the category of the students' reading comprehension scores. The classification can be seen from the following table:

TABLE IV.10

The Classification of Control Class Score (Post-Test)

| No | Categories | Score  | Frequency | Percentage |
|----|------------|--------|-----------|------------|
| 1  | Very Good  | 80-100 | 1         | 4%         |
| 2  | Good       | 66-79  | 7         | 28%        |
| 3  | Enough     | 56-65  | 12        | 48%        |
| 4  | Less       | 40-55  | 5         | 20%        |
| 5  | Fail       | 30-39  | -         | 0%         |
|    | Total      |        | 25        | 100%       |

Based on the table above, it can be seen that there 5 categories for students' reading comprehension of control class. The frequency of very good category is 1 student (4%), the frequency of Good category is 7 students (28%), the frequency of Enough category is 12 students (48%), the frequency of Less category is 5 students (20%) and there is no students who is categorized into Fail category. The table shows the highest percentage of control class is 48%. Thus the majority of the students in control class are classified as Enough.

# c. Data Presentation of the Effect of Using Cognitive Organizers Strategy toward Students' Reading Comprehension

The following table is the description of pre-test and post-test of experimental class and control class:

TABLE IV.11
Students' Pre-test and post-test of Experimental and Control
Class

| NO  | Student     | Ехре     | erimental Class | S     |          | Control class |      |
|-----|-------------|----------|-----------------|-------|----------|---------------|------|
| INO | Student     | Pre-Test | Post-Test       | Gain  | Pre-Test | Post-Test     | Gain |
| 1   | Students 1  | 40       | 60              | 20    | 44       | 48            | 4    |
| 2   | Students 2  | 48       | 60              | 12    | 44       | 48            | 4    |
| 3   | Students 3  | 52       | 68              | 16    | 48       | 56            | 8    |
| 4   | Students 4  | 72       | 76              | 4     | 52       | 56            | 4    |
| 5   | Students 5  | 72       | 80              | 8     | 56       | 64            | 8    |
| 6   | Students 6  | 64       | 72              | 8     | 52       | 56            | 4    |
| 7   | Students 7  | 48       | 60              | 12    | 60       | 64            | 4    |
| 8   | Students 8  | 64       | 76              | 12    | 68       | 76            | 8    |
| 9   | Students 9  | 60       | 76              | 16    | 48       | 52            | 4    |
| 10  | Students 10 | 60       | 72              | 12    | 40       | 48            | 8    |
| 11  | Students 11 | 72       | 88              | 16    | 64       | 72            | 8    |
| 12  | Students 12 | 48       | 64              | 16    | 72       | 76            | 4    |
| 13  | Students 13 | 68       | 80              | 12    | 72       | 76            | 4    |
| 14  | Students 14 | 48       | 64              | 16    | 56       | 64            | 8    |
| 15  | Students 15 | 60       | 76              | 16    | 56       | 64            | 8    |
| 16  | Students 16 | 56       | 72              | 16    | 36       | 40            | 4    |
| 17  | Students 17 | 64       | 76              | 12    | 60       | 64            | 4    |
| 18  | Students 18 | 60       | 76              | 16    | 56       | 64            | 8    |
| 19  | Students 19 | 72       | 84              | 12    | 76       | 80            | 4    |
| 20  | Students 20 | 48       | 56              | 8     | 52       | 60            | 8    |
| 21  | Students 21 | 64       | 76              | 12    | 60       | 64            | 4    |
| 22  | Students 22 | 60       | 72              | 12    | 60       | 68            | 8    |
| 23  | Students 23 | 48       | 60              | 12    | 72       | 76            | 4    |
| 24  | Students 24 | 52       | 64              | 12    | 60       | 64            | 4    |
| 25  | Students 25 | 68       | 76              | 8     | 60       | 68            | 8    |
|     | Total       | 1468     | 1784            | 316   | 1424     | 1568          | 144  |
|     | Mean        | 58.72    | 71.36           | 12.64 | 56.96    | 62.72         | 5.76 |

From the table above, it can be seen that there is significant difference between pretest and posttest between experimental and control class. It can also be

seen from the difference gain in the experimental class and control class. To make it clear, it analyzed in the data analysis, as follows:

# C. The Data Analysis

# 1. The Data Analysis of Using cognitive Organizers Strategy

The data analysis of using cognitive organizers strategy was based on the pre-tests' mean of experimental class list. The researcher fully implemented the cognitive organizers strategy to the second year of SMAN 13 SIAK. It can be seen from the pre-test's mean of experimental class (58.72).

# 2. The Data Analysis of Reading Comprehension

# a. Students' Reading Comprehension Taught by Using Cognitive Organizers Strategy

The following table is the data's description of students' pre-test and posttest scores of experimental class. It was obtained from the result of their reading comprehension test. The data can be described as follows:

TABLE IV.12
Students Pre-Test and Post-Test Scores of Experimental Class

| Valid of Pre- | Frequency   | Standard  | Valid of  | Frequency    | Standard       |
|---------------|-------------|-----------|-----------|--------------|----------------|
| Valid Of FTE- |             |           |           |              | 0.001110101101 |
| Test          | of Pre-Test | Graduated | Post-Test | of Post-Test | Graduated      |
| 40            | 1           | No Pass   | 56        | 1            | No Pass        |
| 48            | 6           | No Pass   | 60        | 4            | No Pass        |
| 52            | 2           | No Pass   | 64        | 3            | No Pass        |
| 56            | 1           | No pass   | 68        | 1            | No Pass        |
| 60            | 5           | No Pass   | 72        | 4            | Pass           |
| 64            | 4           | No Pass   | 76        | 8            | Pass           |
| 68            | 2           | No Pass   | 80        | 2            | Pass           |
| 72            | 4           | Pass      | 84        | 1            | Pass           |
| -             | _           | -         | 88        | 1            | Pass           |
| Total         | 25          |           | Total     | 25           |                |

Based on the data obtained, in the pre-test of experimental class there were 21students did not pass the graduated standard (SKL), or the score < 70 while there were 4 students passed the graduated standard (SKL), or the score obtained 70. The percentage of students who do not pass the graduated standard as follows:

$$\frac{21}{25}$$
 x 100%

= 84%

The percentageof students who pass the graduated standard as follows:

$$\frac{4}{25} \, \bar{x} \, 100\%$$

= 16%

Besides, it can also be seen that the total frequency is 25 and the total scores is 1468 so that mean (Mx) and standard deviation (d) can be obtained by using SPSS as follows:

TABLE IV.13

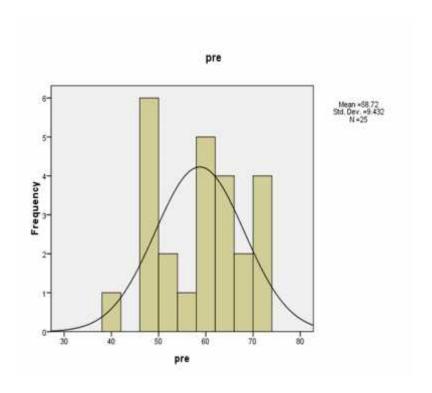
Mean and Standard Deviation of Pre-test of Experimental Class

| Mean               | 58.72 |
|--------------------|-------|
| Standard Deviation | 9.432 |

From the table IV.9 the distance between mean (Mx) and standard deviation  $(\delta)$  is too far. In other words, the score obtained are normal.

Histogram IV.1

Pre-Experimental Histogram



From the histogram above, it can be analyzed that histogram is almost normal.

While in the post test of experimental class there were 9 students did not pass the graduated standard (SKL), or the score obtained < 70. And there were 16 students passed the graduated standard (SKL), or the score obtained > 70. The percentage of students who do not pass the graduated standard as follows:

$$=\frac{9}{25}$$
 x 100%

= 36%

The percentage of students who pass the graduated standard as follows:

$$=\frac{16}{25}$$
 x 100%

= 64%

Besides, it can also be seen the total frequency is 25 and the total scores is 1784. Thus, Mean  $(M_{\scriptscriptstyle X})$  and Standard Deviation obtained by using SPSS. The data described as follows:

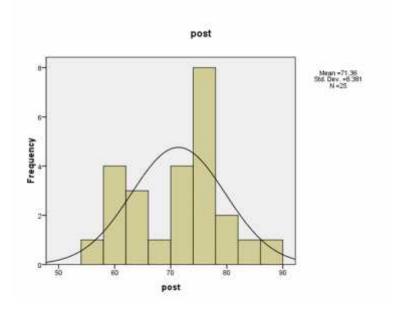
TABLE IV.15

Mean and Standard Deviation of Post-Test Scores

| Mean               | 71.36 |
|--------------------|-------|
| Standard Deviation | 8.381 |

From the table IV.10, the distance between mean (Mx) and standard deviation (d) is too far. In other words, the scores obtained are normal.

Histogram IV.2
Post-Experimental Histogram



From the table above it can be analyzed that the histogram is almost normal.

# b. Students' Reading Comprehension Taught without Using Cognitive Organizers Strategy

The following table is the description the data of students' pre-test and post-test scores of control class. It was obtained from the result of their Reading comprehension. The data can be described as follows:

TABLE IV.17
Students' Pre-Test and Post-Test of Control Class

| Valid of Pre-Test | Frequency of | Standard  | valid of Post- | Frequency    | Standard  |
|-------------------|--------------|-----------|----------------|--------------|-----------|
|                   | Pre-Test     | Graduated | test           | of Post-Test | graduated |
| 36                | 1            | No pass   | 40             | 1            | No pass   |
| 40                | 1            | No pass   | 48             | 3            | No pass   |
| 44                | 2            | No pass   | 52             | 1            | No pass   |
| 48                | 2            | No Pass   | 56             | 3            | No Pass   |
| 52                | 3            | No Pass   | 60             | 1            | No Pass   |
| 56                | 4            | No Pass   | 64             | 8            | No Pass   |
| 60                | 6            | No Pass   | 68             | 2            | No Pass   |
| 64                | 1            | No Pass   | 72             | 1            | Pass      |
| 68                | 1            | No Pass   | 76             | 4            | Pass      |
| 72                | 3            | Pass      | 80             | 1            | Pass      |
| 76                | 1            | Pass      | -              | -            |           |
| Total             | 25           |           | Total          | 25           |           |

Based on the data obtained, in the pre-test of control class there were 21 students did not pass the graduated standard (SKL), or the score obtained < 70 while there were 4 students passed the graduated standard (SKL), or the score obtained 70. The percentage of students who do not pass the graduated standard as follows:

$$=\frac{21}{25}$$
 x 100%

= 84%

The percentage of students who pass the graduated standard as follows:

$$=\frac{4}{25} \times 100\%$$

= 16%

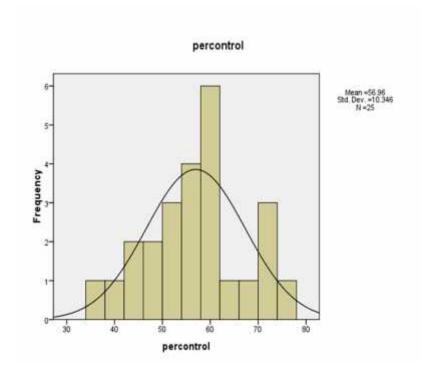
Besides, it also can be seen that the total frequency was 25 and the total score was 1424, it means that mean (Mx) and standard deviation (d) could be obtained by using SPSS as follows:

TABLE IV.18
Mean and Standard Deviation of Pre-test Scores

| Mean               | 56.96  |
|--------------------|--------|
| Standard Deviation | 10.346 |

From the table above the distance between mean (Mx) and standard deviation is too far. In other word, the scores obtained are normal.

Histogram IV.3
Pre-Control Histogram



From the histogram above, it can be analyzed that histogram is almost normal.

While In post-test of control class there were 19 students did not pass the graduated standard (SKL), or the score obtained < 70 while there were 6students passed the graduated standard (SKL), or the score 70. The percentage of students who did not pass the graduated standard as follows:

$$=\frac{19}{25} \times 100\%$$

= 76%

The percentage of students who pass the graduated standard as follows:

$$=\frac{6}{25} \times 100\%$$

= 24%

Besides, it can also be seen the total frequency is 25 and the total scores is 1568. Thus, Mean  $(M_x)$  and Standard Deviation obtained by using SPSS. The data described as follows:

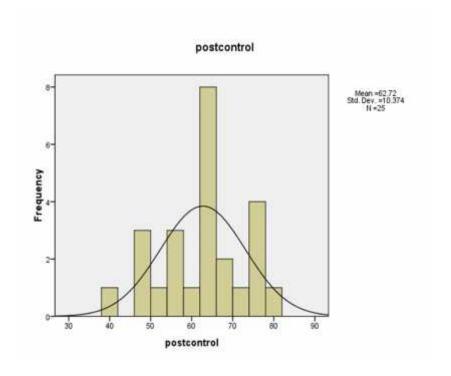
TABLE IV.20
Mean and Standard Deviation of Post-Test Scores

| Mean               | 62.72  |  |  |  |
|--------------------|--------|--|--|--|
| Standard Deviation | 10.374 |  |  |  |

From the table IV.13 above, the distance between mean (Mx) and standard deviation (d) are too far. So, the scores obtained are normal.

# Histogram IV.4

**Post-Control Histogram** 



From the histogram above, it can be analyzed that histogram is almost normal.

# c. The Data Analysis of the effect of Using Cognitive Organizers Strategy toward Students' Reading Comprehension on Narrative Text

To obtain whether there is or not a significant difference between students' reading comprehension on narrative text taught by using cognitive organizers strategy and students' reading comprehension taught without using cognitive organizers strategy at the second year of SMAN 13 SIAK, the writer used independent sample T-test formula by using software SPSS 16.0 version. The data were obtained through the gain of experimental class and control class.

Table IV. 22

## **Data Analysis of Post-test Scores of Experimental and Control Group**

**Group Statistics** 

|   | X | N  | Mean  | Std. Deviation | Std. Error Mean |  |
|---|---|----|-------|----------------|-----------------|--|
| Υ | 1 | 25 | 12.64 | 3.593          | .719            |  |
|   | 2 | 24 | 5.67  | 2.014          | .411            |  |

Based on table above, it can be seen that the total of students from each class was 25, the mean of the experimental class was 12.64, and mean of control class was 5.67. Standard deviation from the experimental class was 3.593, while standard deviation from control class was 2.014. Standard error mean of experimental class was 0.719 and control class was 0.411.

Table IV. 23

Data Analysis of Independent Sample T-test

**Independent Samples Test** 

|          |                                      | Levene's Test<br>for Equality of<br>Variances |      | t-test for Equality of Means |        |          |            |            |   |       |
|----------|--------------------------------------|---|------|------------------------------|--------|----------|------------|------------|---|-------|
|          |                                      |   |      |                              |        | Sig. (2- | Mean       | Std. Error | 95% Confidence<br>Interval of the<br>Difference |       |
|          |                                      | F   | Sig. | Т                            | Df     |          | Difference |            | Lower   | Upper |
| gaincont | Equal<br>variances<br>assumed        | 2.913   | .094 | 8.332                        | 48     | .000     | 6.973      | .837       | 5.290   | 8.657 |
|          | Equal<br>variances<br>not<br>assumed |   |      | 8.332                        | 38.037 | .000     | 6.973      | .837       | 5.291   | 8.658 |

Based on the table above, it can be seen that t<sub>0</sub> is 8.332, the T table is compared by getting the degree of freedom (df) 48. T-table in the degree of freedom significance 5% and 1% was obtained 2.01 and 2.68, so the writer found that 2.01<8.332>2.68. So, it can be analyzed that t<sub>0</sub> is higher than T-table in either 5% or 1%. It can be said that H<sub>0</sub> is rejected and H<sub>a</sub> is accepted. It shows that there is significant difference between students' reading comprehension taught by using cognitive organizers strategy and students' reading comprehension on narrative text taught without using cognitive organizers strategy at the second year of SMAN 13 SIAK.

#### **CHAPTER V**

## **CONCLUSION AND SUGGESTION**

## A. Conclusion

Based on the data analysis explained at chapter IV, finally, the writer concludes the conclusion as follows:

- 1. Students' reading comprehension on narrative text taught by using cognitive organizers strategy is categorized into Good level.
- 2. Students' reading comprehension on narrative text taught without using cognitive organizers strategy is categorized into Enough level.
- 3. From analysis of independent sample T-test formula. It can be seen that t<sub>0</sub> 8.332. It is higher than t-table either in significant 5%=2.01 or in significant 1%= 2.68. So, the writer found that 2.01<8.332>2.68. It concluded that Ho is rejected and Ha is accepted. In other words, there is a significant differencebetween students' reading comprehension taught by using cognitive organizers strategy and students' reading comprehension on narrative text taught without using cognitive organizers strategy at the second year of SMAN 13 SIAK

## **B.** Suggestion

From the conclusion of the research above, it is known that using cognitive organizers strategy can give significant difference between students' reading comprehension on narrative text taught by using cognitive organizers strategy and students' reading comprehension taught without using cognitive

organizers strategy at the second year of SMAN 13 SIAK. Because of that, cognitive organizers strategy can be one of the choices for English teacher in order to help students in reading comprehension.

Based on research findings, the writer would like to give some suggestions for teacher and students.

## 1. Suggestions for the teacher

- a. It is recommended to English teacher to use cognitive organizers strategy in teaching and learning especially in reading subject.
- b. The teacher must support their strategies by using interesting media.
- c. The teacher must give more chance to the students to apply English in learning English.
- d. The teacher must encourage students' awareness about the important of learning English.
- e. The teacher must guide students to construct creative learning for students.

#### 2. Suggestions for the students

- a. The students must pay attention to the lesson explained by the teacher.
- b. The students should do the discussion and share information in order to improve their comprehension in reading the English text

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