

THE EFFECT OF USING ARTIFICIAL INTELLIGENCE AND ILLUSTRATED TEXT ON STUDENTS' READING COMPREHENSION OF NARRATIVE TEXT

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Abstract:

The aim of this study is to know the difference of using and without using AI and illustrated text on students' reading comprehension of narrative text at the eighth grade students of SMP Negeri 1 Sipirok, to know the extent of teaching reading of narrative text by applying and without applying AI and illustrated text at the eighth grade students of SMP Negeri 1 Sipirok, to know the extent the students' reading comprehension of narrative text by using and without using illustrated text, to find out whether there is any significant differences of students' reading comprehension of narrative text by using illustrated text and without using AI and illustrated text at the eighth grade students of SMP Negeri 1 Sipirok. The method that used in this research was quantitative method. The design of this research was quasi-experimental design. The population of this research at the eighth grade students of SMP Negeri 1 Sipirok consists of 158 students. The researcher uses purposive sampling technique to get the sample that VIII-1 and VIII-2 that both consists of 32 students. The data was obtained by distributing observation sheet and also test. The researcher found that the results of the used of AI and Illustrated Text in students' reading comprehension of narrative text at the eighth grade students of SMP Negeri 1 Sipirok in 2025/2026 academic year is more than 85.7% and categorized "very good". The score of students' reading comprehension of narrative text without using AI and illustrated text was 53,91 and categorized "bad" and the students' reading comprehension of narrative text by using illustrated text was 73.44% and categorized "good". There is any significant difference of students reading comprehension of narrative text by using AI and illustrated text than without using AI and illustrated text at the eighth grade students of SMP Negeri 1 Sipirok in 2025/2026 academic year that significant was less than 0,05 (this research significant was 0.00) and the null hypothesis is rejected, and the alternative hypothesis is accepted.

Keywords— Artificial Intelligence, Effect, Illustrated Text, Reading Comprehension, Narrative Text

Introduction

Reading is a daily activity. Reading is process of looking of information from written text and getting meaning from the text. Reading comprehension is a complex skill, mainly taking place in the mind of the reader. Reading comprehension is the process of both deriving meaning from written language and creating that meaning (Simangunsong, Manihuruk, and Hutabarat 2023). It implies that learning comprehension is crucial for all readers to do in order to become good readers. Communication, sharing ideas and information because reading has become parts of daily lives



(Mungkur, Hasibuan, and Apridalrmayana 2021). It means that reading is one of the fundamental skills in English language learning. Reading can help to increase their knowledge because they can learn many things through reading. Reading is not just about pronouncing letters but also about understanding the content of the text in depth. Reading literacy is a vital bridge that connects students to the world of knowledge and information (Pramesti and Cahyaningtyas 2025).

Reading is one of important skill. It holds role to obtain information that is implied or not implied from the text. Reading is a complex skill which is complicated that covers or involves smaller series. Reading is the way to understand about the content of the text. Reading comprehension, therefore, requires a broad set of skills and a certain level of prior knowledge on the part of the reader (Bruggink et al. 2022). It means that reading comprehension is the ability to use and understand those written language formats required by society and/or valued by the individual. Readers can construct meaning from written texts in a variety of forms. Furthermore reading strategy consist of (1) Reading (membaca), (2) Encoding (menyandakan), (3) Annotating (menganotasikan), dan (4) Pondering (merenungkan) (Krikilan 2021). They read to learn, to participate in communities of readers in school and everyday life, and for enjoyment The main target in reading is the students reading comprehension competence to comprehend the content as it is presented .Today, reading is very essential skill that is very demanded in daily life. With the development of the internet around the world, students need to master reading comprehension in order to understand their knowledge, content of the text, articles, and so on. Reading comprehension is the process of grasping the author's intended meaning when reading.(Adhinatha, Budiarta, and Krismayani 2023). In recent years, the Indonesian ministry of education and cultural has been implementing a national curriculum called 2013 Curriculum.

In recent years, advances in artificial intelligence (AI) have opened up new opportunities in education AI may not mean designing an incredibly smart computer that solves all problems, but rather building a machine that is capable of human-like action. (Fitria 2021)The objective of artificial intelligence (AI) technology is to enable computer systems that imitate human cognitive functions. AI can help teachers and researchers create innovative content for comfortable teaching and learning. AI technology can be used in reading practice for beginners. Artificial Intelligence (AI) is a computer science technology that explores the analysis and development of smart machines and apps. It is the science of having a machine to think and behave like a human being who is intelligent. Artificial Intelligence (AI) is a human intelligence simulation based on computers and designed to function as human beings (Fitria 2021).

One of the objectives of this curriculum especially in English subject is that the students are expected to comprehend various kinds of reading texts, such as narrative, procedure, descriptive, factual report, and hortatory exposition. Narrative text is a type of text that usually tells a story about the past either real or fictional, which aims to entertain the readers. According to Sarwani (2015) in Mulyana (2022:147) narrative text is a type of text that is flexible to contain moral messages, attitudes and behavior, this type of text aims to entertain or please the reader or listener. In addition, narrative text has a general structure, namely orientation, complication, resolution and re-orientation.

The narrative had the indicator, and generic structure, they were:1)Topic: Topic in a text is the subject matter that is tell explicitly in a narrative text. A narrative text is an imaginative story to entertain people (narrative writing is an original story that aims to treat people (Eliyawati 2020).It usually appears through what the story is about, what happen, who did it, and the events, in contrast to theme which is more implicit and deeper. It can be said that topic is the main focus or subject that becomes the center of attention in the narrative presentation of data. Topic in narrative text refers to the identifiable subject or event around which the story is built. 2) Social Function: Social function is important to entertain the reader and also as the aim of text which is tells to the reader. According to Gerot & Wignell "The social function of narrative text is to entertain the readers" as quoted by (Maureen Pricilia and Rahmansyah 2022). Then, the narrative text is the most powerful ways to communicate, means that the social function can communicate the meaning from the text. Although narrative-driven contributions to consumption, markets and culture are in the ascendant, the same cannot be said for literary criticism (Brown, Stevens, and Maclaran 2022); it reflects the natural

progression of human experience. By adhering to this structure, authors can evoke emotions and connect with their audience on a deeper level. The interplay between the elements of orientation, complication, and resolutions is what makes narratives powerful. 4) lexico grammatical features: The lexico grammatical feature of narrative such as: simple past tense, noun, pronoun, action verb, adverb, adjective, and time connective. Based on the explanation above, the writer discussed some of lexico grammatical feature, namely simple past tense, action verb, and temporal time, connective.

In fact, many students feel difficult to understand narrative text. There searcher has interviewed some of the eighth-grade students and teacher of SMP Negeri 1 Sipirok, but several of them cannot answer the question well. Based on the observation, the minimum mastery criteria (KKM) of English in SMP Negeri 1 Sipirok especially at the eighth grade is 70, but in reality, in students' daily test in English, students only get score 45 for daily test. By seeing this condition, the researcher sees that their ability in reading narrative text is far from the expectation. There are many factors that influence this problem, such as lack of students' motivation, vocabulary and tenses mastery, students' environment, family background of the students', method of learning, media uses of learning from the teacher, and so on. The research question of this research as follows: To what extent is the teaching reading narrative text at the eighth-grade students of SMP Negeri 1 Sipirok by applying illustrated text and without applying illustrated text? To what extent the students' reading comprehension of narrative text at the eighth-grade students of SMP Negeri 1 Sipirok by using illustrated text? To what extent the students' reading comprehension of narrative text at the eighth-grade students of SMP Negeri 1 Sipirok without using illustrated text? Is there any significant difference of students' reading comprehension of narrative text by using illustrated text and without using illustrated text at the eighth-grade students of SMP Negeri 1 Sipirok?

Reading as one of the basic language skills has an important role in widening one's knowledge to access information and make meaning. (Imam nur Aziz 2023) It means that the use of visual aids is one of the efforts to make it easier to understand the language being learned, therefore the use of visual aids can be the one of efforts to make it easier to understand learned language. While, visual materials can make a lesson more attractive and the experts agree that they help both the teachers and students in the teaching-learning process (Pateşan, Balagiu, and Alibec 2018) the combination of text and images can enhance student comprehension as it engages multiple cognitive channels in information processing", which means the combination of the text and images can improve the comprehension. Based on the teaching practice of researcher at SMP Negeri 1 Sipirok, there are several problems faced by students at the eighth grade when writing narrative text, The first, reflecting their weak mastery of vocabulary, grammar, the students cannot express their ideas based on their experiences in reading form and using media not effective. To overcome the problem above. lustrated text is media which is one of media that can be applied to various level student. The researcher, the researcher tried using illustrated text to see the effect of illustrated text on students' reading comprehension of narrative text by attracting students' attention and imagination by using pictures about narrative text, because illustrated text could engage students visually and cognitively, making the content more relatable and accessible. Visual aids significantly could improve the comprehension by providing context and memory retention. That made students would get easily the comprehension on reading narrative. The researcher thought that it was necessary to conduct research about "The Effect of Using Illustrated Text on Students' Reading Comprehension of Narrative Text (A Study at the Eighth Grade Students of SMP Negeri 1 Sipirok).

Research Method

According to Sugiyono (2017), experimental research is a research design used to investigate the cause-and-effect relationship between two variables by manipulating the independent variable and observing the resulting changes in the dependent variable. Methodology is the systematic, theoretical analysis of the methods applied to a field of study (Patel and Patel 2013). The researcher was used the Quasi experimental the use of control groups, experimental groups, and random assignment, allowing researchers to isolate the influence of the treatment being tested. A qualitative

case study was used to discover meaning, investigate the process (Ilmiah and Pendidikan 2024). The researcher was finding out if there is a significant effect of uses illustrated text on students' Reading Comprehension of narrative text. According Sugiyono, (2019: 111) in this design there is a pretest, before being given treatment.

The location of the research will be conducted in SMP Negeri 1 Sipirok. Location of the school is in Jalan Simangambat No. 13, Kecamatan Sipirok, Kabupaten Tapanuli Selatan. John W. Caswell (2012:142) in Sasmita (2014) says "A population is a group of individual who have the same characteristics". From the definition the writer concluded that population is the whole of the same characteristics such as grade. According to Creswell, (2012:142) says "a sample is a sub group of the target population that the researcher plans to study for generalizing about the target population. The instrument of the research is a tool or facility which is used by the researcher in collecting data in order to get easier process and better result, in brief definition, complete and systematic so was easier to be analyzed. The instrument of this research was observation sheet and test.

Result

Application of Illustrated text on Students Reading Compherension of Narrative text.

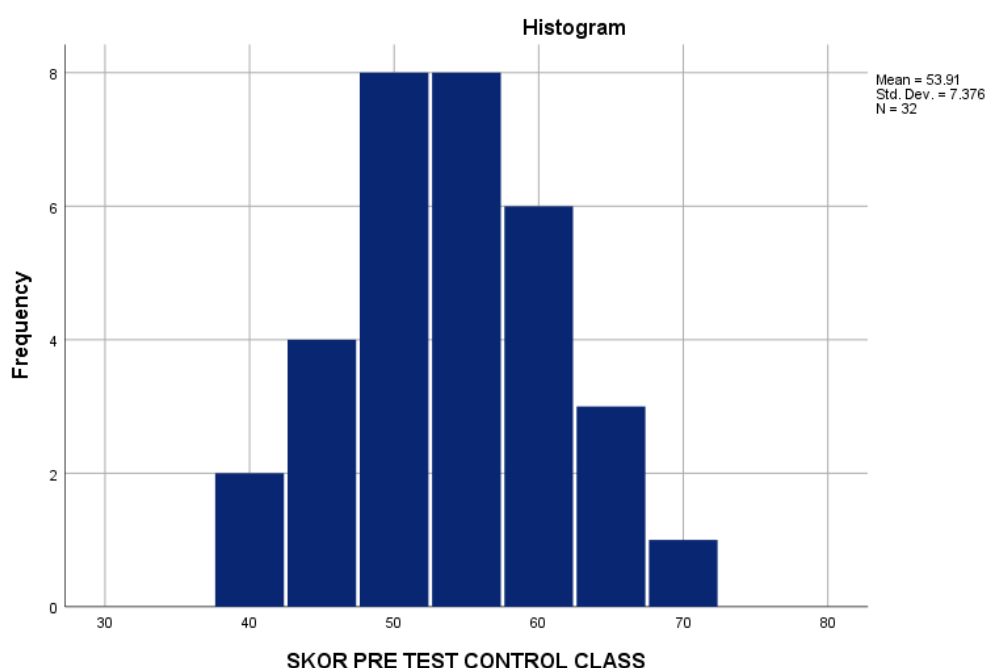
This research was conducted at SMP Negeri 1 Sipirok. The researcher used tests in collecting data from students in the experimental class and control class. In this research, test is used as the main instrument. The test was divided into two, they were pretest and posttest. The researcher gave the same pretest and posttest to the classes. The pretest was given before the treatment. The purpose of pre-test is to measure the students' reading comprehension before treatment. Whereas the post-test was conducted after the treatment. The purpose of the posttest is to measure the achievement of the students' in reading comprehension of Narrative text. The researchers evaluated and described the findings of this research based on the data found during and after the treatment whether or not application of AI and illustrated text can improve reading comprehension of grade ten students at SMP Negeri 1 Sipirok. In this study, students' literal reading comprehension on descriptive text becomes the main focus of application of illustrated text implementation. During the treatment descriptive text was taught, as well as simple present tense, and action verbs, measured through indicators such as clear goal formulation, strong leadership, conducive climate, and good internal performance (Ramadhani et al. 2025). The generic structure of the text was also discussed. The treatment of teaching was conducted using an online platform which is whatsapp messenger.

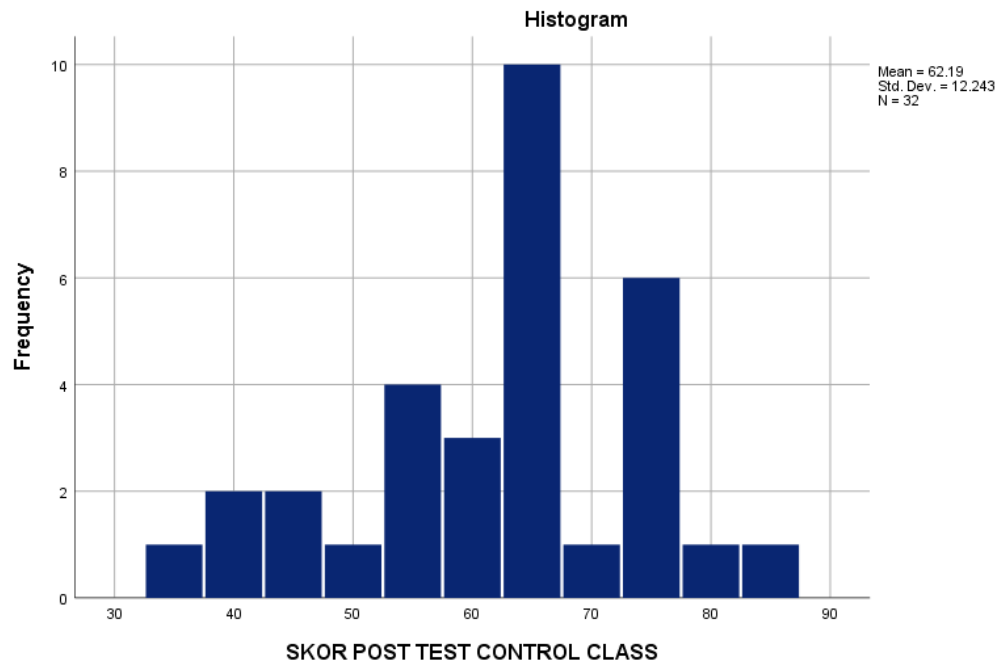
This research consisted one pre-test, six meetings of treatment, and one post-test. In pretest and post-test, the researcher provided a Google Form platform to facilitate students in collecting their pretest and posttest. The first test was a pretest. The goal was to determine the students' prior knowledge on comprehending reading material, the result of pretest from experimental class showed that the students' score in multiple choices was 96, in essay was 165, and the mean score was 49.71. In the posttest their total score in multiple choices was 99, in essay was 241, and the mean score was 64.76. Having looked at this result, it is considered that there is an improvement on students' reading comprehension. This result is similar to the previous study from These data were gathered from sentences (Utami, Hadi, and Aswir 2022) and (Pramesti and Cahyaningtyas 2025). The results of this study show that there is an influence of the literacy approach assisted by picture storybooks on students' reading comprehension ability where both concluded that the use of application of illustrated text is effective to improve students reading comprehension. By looking at the current situation, this research seems different from previous research before where previous researchers conducted an offline class to do a treatment, but this research was conducted virtually. This is the first time this strategy has been taught by online learning. The researcher totally realized by using online learning has some problems and shortcomings in its application. During six meetings the researchers gave treatment, the researcher found some problems in implementing this strategy in teaching learning process which is highly dependent on internet connectivity. The

problem also comes from students, the students did not have data for internet connection so that it affected their presence. They often join very late during online class and this situation cannot be controlled by the researchers. To overcome this problem, the researcher made learning videos that students could access at any time so they did not miss the lesson and could ask the researcher either in class groups or ask the researcher directly.

In the research finding were explained the table of students score. The aim of this research is to know the difference by using and without using illustrated text on students' reading comprehension of narrative text in SMP Negeri 1 Sipirok. Based on the result obtained from the observational analysis of how the researcher applied of AI and the Illustrated text in teaching Reading comprehension of narrative text at SMP Negeri 1 Sipirok, By the 12 statements in the steps without using illustrated text (control class), the researcher get score 86,6% which categorized "very good".

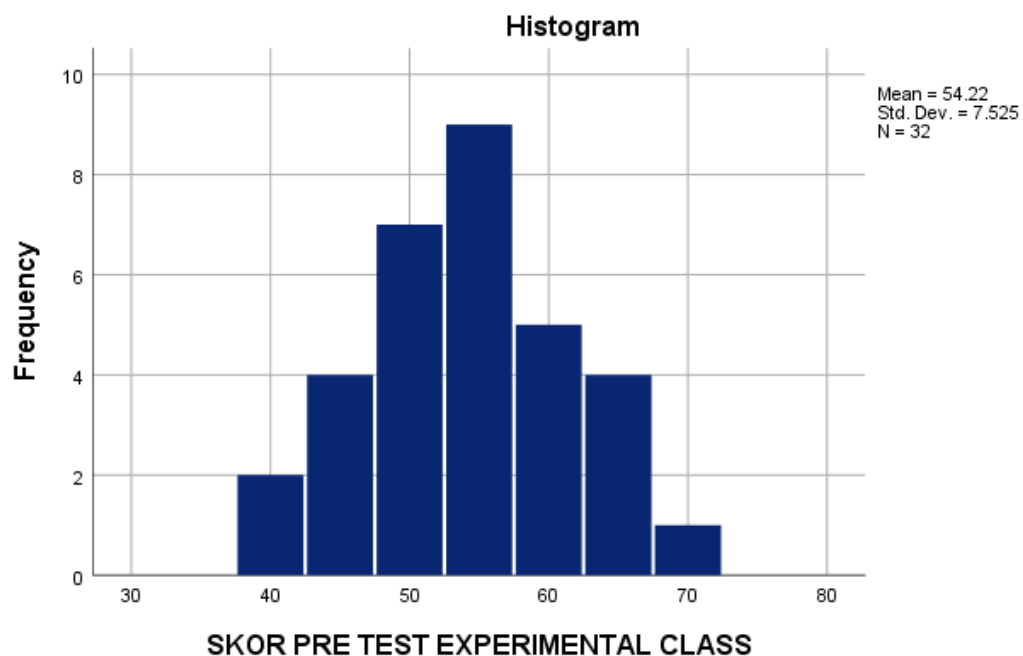
Tabel 1
Histogram of Students' Reading Comprehension without Using Illustrated Text

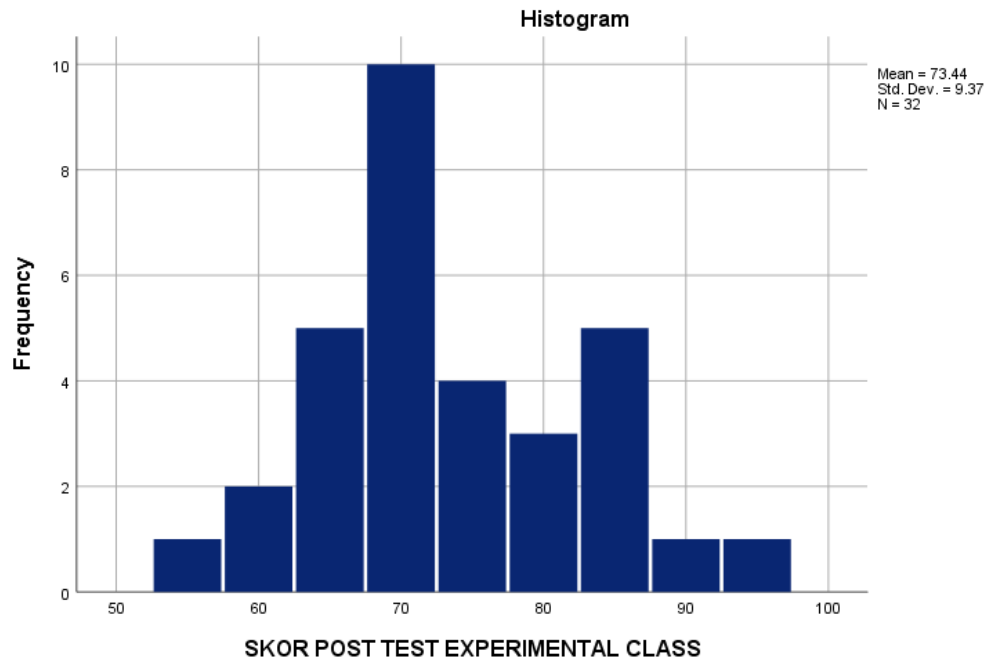




Based on the histogram above, it can be seen that teaching reading without using illustrated text on students' reading comprehension is fair to poor on pretest, and good on post-test. It means that the students' reading comprehension of narrative text can be increase with another ways.

Table 2
Histogram of Students' Reading Comprehension by Using AI and Illustrated Text





Based on the histogram above, it can be seen that students' reading comprehension of narrative text has increased. This means that the teaching reading by using illustrated text affect students' reading comprehension of narrative text.

Table 3
Result of Independent Sample T-test on Post-Test between Control and Experimental Class

Statistics	Post Test Control & Experimental Class
t-value	-4.128
Df	62
Sig. (2-tailed)	.000
Mean Difference	-11.250

Ha : If the sig (2-tailed) < 0.05, there is any significant difference of using AI and illustrated text on students' reading comprehension of narrative text.

Ho : If the sig (2-tailed) > 0.05, there is no any significant difference of using AI and illustrated text on students' reading comprehension of narrative text.

Based on the explanation above, of independent samples t-test above, it can be seen that significance value which is less than 0.05 (.000 < 0.05). Therefore, Ha is accepted and Ho is rejected. It means there is a significant difference of using AI and Illustrated Text on students' reading comprehension of narrative text at the eighth grade of SMP Negeri 1 Sipirok.

Discussion

Based on result of the application of AI and illustrated text in experimental class in teaching reading comprehension of narrative text the researcher obtained an average scores 85.7% which categorized “very good”, and in control class in teaching reading comprehension of narrative text the researcher obtained an average scores 86.6% . Next, the result of tests in reading comprehension of narrative text without using illustrated text (control class) is 53.91% (fair category). The result of reading comprehension of narrative text by using AI and illustrated text (experimental class) is 73,44 (good category). It can be concluded that after using illustrated text in reading comprehension of narrative text gives a good effect and had any differences, it can be seen from the average value by AI and using illustrated text higher than without using AI and illustrated text in reading comprehension of narrative text at the eighth grade students of SMP Negeri 1 Sipirok.

Based on relevant research discussions previously discussed in chapter 2, Simangunsong et., al (2023), studied the influence of using picture stories on improving students’ reading comprehension of narrative text to ninth grade students. Using picture storybooks significantly improves the reading comprehension skills of junior high school students.(Febriana Sukma et al. 2025). This research uses experimental methods and control class with random sampling techniques. Based on this research, there is significant influence by using pictures stories and without using picture stories. The novelty of this research from the results of this research was the data showed the significant difference and affect in reading comprehension, especially in determining topics. This research rejected the null hypothesis and accepting the alternative hypothesis.

Based on the previous explanation, the researcher concludes that illustrated text has the differences on students’ reading comprehension of narrative text. Since AI and illustrated text developed to see the difference in reading comprehension of narrative text by applying and without applying illustrated text, students can easily identify the structure and interested to understand what happened in narrative contents of sentences, and the alternative hypothesis is acceptable.

Conclusion

Based on the research in chapter IV, the author outlines the conclusion as follows: applying of AI and illustrated text in experimental class in teaching reading comprehension at the eighth grade students of SMP Negeri 1 Sipirok categorized “very good” with score is 85.7%, teaching reading comprehension without using illustrated text in control class in teaching reading comprehension at the eighth grade students of SMP Negeri 1 Sipirok categorized “very good” with the score 86.6%, students’ reading comprehension by using illustrated text and without using illustrated text at the eighth grade students of SMP Negeri 1 Sipirok of 53.91% with category “fair” and using AI and illustrated 73.44% with “good” category, there is any significant difference by using AI and illustrated text on students’ reading comprehension of narrative text at the eighth grade of SMP Negeri 1 Sipirok the alternative hypothesis is accepted. The implementation of illustrated text helps students in reading process. AI and Illustrated text helps students’ ability in organizing text, because the used of picture helps them more interested to explore and used their imagination to interpret and also remember the structure the elements.

From the conclusion and implication above, the researcher purposes some suggestions, as follows: The students are hoped to be more active in learning English, especially study about reading narrative text. To the teacher of English in SMP Negeri 1 Sipirok should be able to choose the suitable teaching method to increase the teaching and learning process based on the material and students conditions and teacher should motivate the students to increase their knowledge in reading text especially.To the headmaster of SMP Negeri 1 Sipirok should be give support and motivation to the teachers and also students and improve the facilities which are needed especially in English. To the readers, who want to make the similar topic in future, the writer suggest taking another variable that is possibly affect reading narrative text.

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