THE EFFECT OF HIGH ORDER THINKING SKILL (HOTS) TOWARDS STUDENT'S READING SKILL AT THE ELEVENTH GRADE OF SMAN 10 PANDEGLANG IN ACADEMIC YEAR 2025/2026

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ABSTRACT

This study aims to determine the effect of High Order Thinking Skills (HOTS) on the reading skills of eleventh-grade students at SMAN 10 Pandeglang in the 2025/2026 academic year. This study used a quantitative approach with a quasi-experimental method and a control group design. The study population was all eleventh-grade students at SMAN 10 Pandeglang, while the sample size was 60 students, divided into two groups: the experimental class and the control class. The research instrument was a HOTS-based reading skills test, administered in pretest and posttest formats.The results showed that the average posttest score for the experimental class was 68.17, while the average posttest score for the control class was 66.83. Data analysis using an independent t-test indicated a difference in reading skill outcomes between the experimental and control classes. Thus, it can be concluded that the implementation of HOTS has an effect on the reading skills of eleventh-grade students at SMAN 10 Pandeglang.

Keywords: High Order Thinking Skills (HOTS), reading skills, Narrative Text.

ABSTRAK

Penelitian ini bertujuan untuk mengetahui pengaruh High Order Thinking Skills (HOTS) terhadap kemampuan membaca siswa kelas XI SMAN 10 Pandeglang pada tahun ajaran 2025/2026. Penelitian ini menggunakan pendekatan kuantitatif dengan metode quasi-eksperimen dan desain kelompok kontrol. Populasi penelitian adalah seluruh siswa kelas XI SMAN 10 Pandeglang, dengan jumlah sampel 60 siswa yang dibagi menjadi dua kelompok: kelas eksperimen dan kelas kontrol. Instrumen penelitian berupa tes kemampuan membaca berbasis HOTS yang diberikan dalam bentuk pretest dan posttest. Hasil penelitian menunjukkan bahwa rata-rata skor posttest kelas eksperimen adalah 68,17, sedangkan rata-rata skor posttest kelas kontrol adalah 66,83. Analisis data menggunakan uji-t independen menunjukkan adanya perbedaan hasil kemampuan membaca antara kelas eksperimen dan kelas kontrol. Dengan demikian, dapat disimpulkan bahwa

penerapan HOTS berpengaruh terhadap kemampuan membaca siswa kelas XI SMAN 10 Pandeglang.

Kata Kunci: *High Order Thinking Sk*ills (HOTS), kemampuan membaca, teks naratif.

A. Introduction

English had a function as a means to comunication in daily life, it helped people gain knowledge, share information and enjoy language lesson in English culture. Fatmawati, et.al, the language most people use to communicate is English because it is an International language (Fatmawati, Bisri, & Islakhiyah, 2023). In indonesia, the English language had an important role in the field of education. Therefore, it was included in the national education curriculum. In addition, English was the main compulsory foreign language taught in schools, from elementary to university level. Each level of English language teaching was taught differently, such as in high school. There were four language skills that had to be mastered by language learner: listening, speaking, reading, and writing (KODA, 2020).

Reading is very important for students because it is a fundamental aspect of their education, through reading people can access information and entertainment, for their professional advancement, and for educational purposes. Reading can include a variety of activities beyond simply gathering information, such as interpreting, analyzing, or making predictions. This can also develop their knowledge and get various kinds of information related to their studies through reading genres. Personal reading includes newspapers, magazines, letters, emails, advertisements (Brown, 2010). Andini, R.U. and Ratmadina, stated that reading is an important skill that is needed to get information from written text (Padang, 2019). In reading skill, students not only have to read also have to comprehend the text in order to get the meaning from the text that they have been read.

Afflerba ch, stated that Reading is a passive skill which requires interactive process in comprehending the meaning in order to get information or ideas from written text (Afflerbach, 2025). Understanding the meaning of the reading skill including the ability in reading from many experts who have different points of view is definitely important for the teacher of reading. Hudson, Reading skills are important for students both in the learning process at school and in the community (Hudson, 2009). By mastering reading skills, a person is able to understand words interpretatively, evaluative and creatively.

Based on observation and experiences of the researcher during the Teaching Practice (PLP) which was carried out from seventeen October to four December 2024 at SMAN 10 Pandeglang. It was known that the majority, especially those in class Xl students of SMAN 10 Pandeglang, still were lack of reading skills, including: first, the students had difficulty knowing the main idea of the text. second, many students consider the material presented to be less interesting due to a lack of knowledge about the topic being discussed.

Third the students tended to forget what they have read. Fourth, not all

students were confident to go forward and read in front of the class. Fifth,the students found difficulty to deal with vocabulary that they did not know before because they did not read enough source material and practice dealing with complex vocabulary. and sixth, the students were not motivated to read reading material.

There are several strategies that can be used to improve students' reading on of them namely High Order Thinking Skill (HOTS). According to Susanti, A. et al, Hots allows someone to apply new knowledge and information in order to be able to respond in condition (Susanti & Lailiyah, 2021). High Order Thinking Skill is the ability to think critically, logically, reflectively, metacognitively, and think creatively, which higher order are thinking skills. Hots is defined in terms of (1) transfer, (2) critical thinking and, (3) problem solving (Brookhart, 2010).

In describing transfer Brookhart, stated that students not only acquire knowledge and skills, but also the ability to apply the knowledge and skills to new situations. Heong et al, Such skills include thinking about something and making decisions about something solving problems, thinking creatively, and thinking about the advantages and disadvantages of things (Heong et al., 2024).

Given the importance of reading skills and the challenges previously identified, it is important to know the effect of using HOTS on students' reading abilities. This research aims to find out whether the application of HOTS can have an impact on the reading skills of eleventh grade students at SMAN 10 Pandeglang in the academic year 2025/2026.

Based on the previous the problems which explained, the students still needed guidance in improving reading skills, the researcher was interested in conducting experimental research entitled "*The Effect of High Order Thinking Skill* (HOTS) Towards Student's Reading Skill at the Eleventh Grade of SMAN 10 Pandeglang in Academic Year 2025/2026.

B. Research Method

This chapter introduced the discussion of method research (Nurhayati, Latif, & Anwar, 2024). This was shown in the titles. Which included the research environment, data and source of data, method of research, data collection technique, data analysis technique and data analysis technique of determining reliability (Nurhayati, Dina Liana, 2025).

This research used quantitative approach to analyze data systematically and used a quasi-experimental design to collect the data. Sugiyono, a quantitative approach in research involves the use of numerical data and statistical analysis to study a population or sample (Sugiyono, 2022). This method is employed to test hypotheses, establish relationships between variables, and draw objective conclusions based on measurable data. This study also used a quasi-experimental design to investigate the impact of an intervention or treatment without the use of full randomization (Arikunto, 2022).

This study employed a comparative research design, where one group received a treatment (the experimental group) and was compared to the one group that did not receive the treatment (the control group). The primary objective this research was to assess the effectiveness of using HOTS on students' reading skill.

To achieve this, the researcher divided the participants into two

classes, namely the experimental class whose learning used HOTS, and the control class whose learning used conventional (teacher center) methods (Weyant, 2022). By comparing the results of these two groups, the learning used traditional methods. the researchers aimed to find out whether the use of HOTS had a significant impact on students' reading skills. The table below is a quasi experimental research design table.

Table 1. Quasi Experiment Design Non-Administrative Control, Pre test, and Post test Design

Sample	Pre-Test	Treatment	Post-Test
E	O1	XI	O2
C	O3	XI	O4

This research was carried out at SMAN 10 Pandeglang, which was located at Jl. Raya Labuan Pandeglang No. Km. 24, Pasireurih Village, Cisata District, Pandeglang Regency, Banten Province. The location of this school was approximately 1.6 kilometers from the Mathla'ul Anwar Banten University campus, with a travel time of approximately three minutes by motorbike, so access to the research location was relatively easy for the researcher to reach.

Creswell, stated that population refers to the entire group of individuals or elements that share common characteristics and from which a researcher intends to draw conclusions (Creswell, 2020). It represents the total group that is the focused of a study. The population in this study are the eleventh graders of SMAN 10 Pandeglang in the academic year 2024/2025, which consisted of eleventh classes with a total of 322 students.

According to Miles et al, sample is a subject of the population that is selected for the actual study (Miles, Huberman, & Saldana, 2020). The researcher employed a cluster random sampling technique to select two classes as the research sample. This technique was chosen because the sample comprised a group of students who did not receive any intervention from the researcher. This implied that the researcher utilized the existing classes as established within the school. Through cluster random sampling, the researcher took XI five as the experimental class, which was given the treatment using HOTS, while XI sixth served as the control class, which used conventional methods. Both classes comprised a total of 60 students each.

C.Research Findings and Discussion

Description of the Data

In this chapter the researcher presented the result of analyzing of pre-test and post-test in figure out whether there is significant effect of using HOTS towards students reading skill. The researcher, which began in july and continued through August, was carried out in the eleventh grade of SMAN 10 Pandeglang. The information came from both the experimental and control classes. In the experimental class, HOTS was used, where as conventional (teacher-centered) was used in the control class.

The reading skill is hots based is the instrument used in this study, and it has two parts: a pre-test and a post-test. The researcher gave the pre-test to the understudies before treatment. In addition, this research was carried out four meetings, it started by giving pre-test to the students at the beginning of the meeting, which aimed to measure the comprehension of students understanding o narrative text material before getting the treatment.

The following meeting, students got their respective treatments, which was carried out for four meetings. In order to assess students were given the identical question to complete in the most recent meeting which was also known as the post test.

Based on the data of pre-test and post-test that are collected above, the writer needs to know the descriptive data statistic score containing the minimum, maximum score, mean and standard deviations. To find out them all, the writer uses the computer-assisted program SPSS 25 version, and the result can be described below:

Table 2.The Data of Descriptive Statistics

	N	Min	Max	Mean	Std.Deviation
Pre-Test Expr	30	30	70	52,83	8.447
Post-Test Expr	30	45	85	68,17	9.048
Pre-Test Control	30	40	70	53,00	7.834
Post-Test Control	30	45	85	66.83	8.355
Valid N(listwise)	30				

Based and result of the descriptive data statistic above, from 30 students (N) on pre-test experimental class, the minimum score that is 30, while maximum score is 70, the average or mean of this score is 52,83 and the standar deviation is 8,447. For the post-test experimental class, the minimum score that is 45, while the maximum score is 85, the average or mean of this score is 68,17 and the standard deviation is 9.048. Meanwhile, for control class from 30 student (N) the score pre-test gets the minimum score tha is 40, and the maximum score that is 70, so mean of this test is 53,00 and the standard deviation is 7.834 and for the post-test control class the minimum score that is 45, maximum score is 85, the average or mean of this score is 71,50 and standard deviation is 7,895.

Normality Test

In this research, the writer determined the pre-test and post-test score for the experimental and control classes by using SPSS 25 program. It is utilized to investigate normality of the data that will be examined to see whether both classes have a normal distribution. To analyze normality data the writer use Shapiro-Wilk with the level of significant 5% (α = 0.05).

Table 3.Tests of Normality

class		Shapiro-Wilk		
		statistic	df	Sig.
Student result	pre-test exp	.959	30	.293
	post-test exp	.961	30	.332
	pre-test cont	.944	30	.119
	post-test cont	.954	30	.221

Based on the data above, it can be seen that the sigificant of the data experimental and control class used Shapiro-Wilk is higher than 5% (>0.05), where for pre-test experimental class is 0.293 > 0.05 and post-test 0.332 > 0.05, while pre-test control class is 0.119 > 0.05 and post-test is 0.221 > 0.05. As the result, that the score of the data each class is in normal distribution.

Homogenity Test

In this study, the homogenity test was the Levene test performed on program windows using SPSS 25 and the following criteria:

1. If the significance value of sig > 0.05 the data is homogenous.
2. If the significance value of sig < 0.05 the data is not homogenous.

Table 4. Tests Homogeneity of Variance

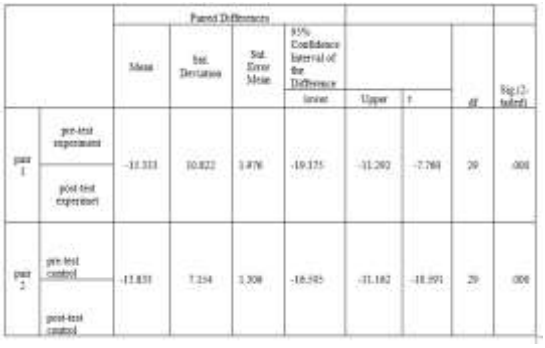
		Levene Statistic	df1	df2	Sig.
The Result of Student Test	Based on Mean	.473	3	116	.702
	Based on Median	.307	3	116	.492
	Based on Median and with adjusted df	.307	3	107.594	.493
	Based on trimmed Mean	.568	3	116	.637

The data is homogeneous if the significance is higher than level sigificance 5% (> α = 0.05). based on the table above, the data of pre-test both experimental class and control class are homogeneous, because the score of significance is higher than level significance, that the score is 0.702 > 0.05. As a result, it is determined that the data homogenous, which means that pre-test and post-test both the experimental class and the control class have the identical variants as well.

Hypothesis Test

In this research the hypothesis test used a statistics test (T-test) paired samples test (pre-test and post-test in experiment class and pre-test and poste-test in control class) by using the SPSS 25 program for windows.

Table 5. Paired Sample T-Test



Based on the table paired samples t-test, the null hypothesis (Ho) is rejected and the alternative hypothesis (Ha) is accepted due ti the fact the level significance is lower than the result of the significance (2 tailed) test 5% (0.000 < α = 0.05) for both the experimental class and the control class.

Therefore, the result can be inferred that there is a differences in the average or mean of the pre-test and post-test results, which means that there is a significant effect of each strategy that is used in the both experimental class and control class.

Furthemore, based on the results of mean obtained from the two different strategies used by each class, a more significant difference in the mean pre-test and post-test results is obtained by the experimental class using High order thinking skill in reading skill.

Result Discussion

The test in this research conducted to know the effect of High Order Thinking Skill (HOTS) Towards Student's Reading Skill at the eleventh grade of SMAN 10 Pandeglang.

The previous research similarities and differences with this research. The similarity was obtained from knowing the effect and effectiveness of the High Order Thinking Skill in learning activities in the student class. The previous research used a classroom action research design, whereas this research used a quasi-experimental design with pre-test and post-test designs to conduct the research.

The researcher found the effect high order thinking skill towards student's reading skill in grade eleventh SMAN 10 Pandeglang. The researcher tested an instrument at school with similar grade before conducting this research. There was one instruction was tested. The researcher conducted a validity test and reliability test after obtaining the result of the instrument test. One every one instruction that were examined for validity passed the test. The researcher conducted a reliability test after conducting the validity test.

According to Creswell, et al, "Reliability instrument is referring to the consistency or repeatability of an instrument produced the same data (Creswell & Poth, 2020). A good measure should be both valid

(measure that it's suposed to measure) and reliable (the results are dependeble) The datadeclared reliable if the value of Alpha > r table reliable, while the value of Alpha < r table=ireliable, the result of the reliability test was 0,830 >, so the instrument was reliable. The instrument that had passed the validity and reliability test was used as an instrument for pre-test and post-test in both the experimental class and control class.

After conducted the instrument test, the researcher conducted a pre-test, that is aims to find out students' initial knowledge before being given treatment in both classes, after conducting the pre-test the researcher will conduct treatment in four meetings, in this step, the researcher used High order thinking skill learning in the experimental class, while researcher used conventional as learning in the control class. The purposed of using High order thinking skill is to improve students' reading comprehension skill, because of that the researcher chose high order thinking skill as learning because researcher hope it will be more interesting and easier to learned.

After the treatment was carried out in two classes, the researcher does a post-test administered in both the experimental and control classe determine the students' improvement in reading ability after through treatment, researcher used SPSS 25 to analyze data. Test the hypothesis in this study using t-test analysis. Before To carry out this research analysis, it is necessary to carry out the prerequisites for research analysis which includes the normality test and homogeneity test.

From the results of this study, the average pre-test value was obtained by students of class Xl five SMAN 10 Pandeglang as an experimental class is 52.83 low than 53.00 Mean score of class Xl sixth as the control class. The highest pre-test score in the experimental class is 70 and the lowest pre-test score in the experimental class was 30, while the highest pre-test value in the control class was 85 and the lowest pre-test value in the control class is 45. So, the distribution of pre-test scores in the experimental class was low than that of the control class.

Furthermore, the average post-test score for the experimental class was 68.17 higher than the average value of the control class 67.33. Highest rating of the post-test in the experimental class was 85 and the lowest post-test score in the class experimental class was 40, while the post-test the lowest score in the control class was 45. Those means the distribution of posttest scores are higher in the experimental group than in the control group.

Before the researcher did the hypothesis test the researcher should did normality and homogeneity test, in this research the normality test used a Kolmogorov-Smirnov test by using SPSS 25 for program windows with the criteria: If the significance value of sig > 0.05 the data is normally distributed, while If the significance value of sig < 0.05 the data is not normally distributed.

The homogeneity test in this research used Levene test by using SPSS 25 for program windows with the criteria: If the significance value of sig > 0.05 the data is homogenous, while if the significance value of sig < 0.05 the data is not homogenous.

Based on the results of the study, it was shown that the experimental pre-test was sig 0.293 > 0.05 data is normally distributed, post-test sig 0.332 > 0.05 the data is normally

distributed, the pretest control sig is 0.119 > 0.05 for the data normally distributed, and the last is the post-test control sig is 0.221 > 0.05 the data is normally distributed, if the data is normally distributed it will be carried out homogeneity test. Researcher compared the results of the pre-test and post-test homogeneity test results, both classes show homogeneity test results that the pre-test value between the experimental and control classes is sig > 0.05, so the data is homogeneous, the table above states that the score post-test homogeneity between the experimental and control classes is sig > 0.05, so the data is homogeneous, based on the results of the two data Pre-test and post-test are homogeneous.

Hypothesis test, often also called the t test, The final set of test data for this study is this hypothesis test. In this study the hypothesis test used is statistical test (T-test) paired sample test (pre-test and post-test on experimental class and pre-test and post-test in the control class) using SPSS 25 program for window with criteria: If sig (2-tailed) < 0.05, Ho rejected and Ha accepted, otherwise if sig (2-tailed) > 0.05 then Ho accepted and Ha rejected.

Based on the results of the t test the researcher obtained a score of 0.00 < 0.05 so that the alternative hypothesis (Ha)" There is any significant Effect of High Order Thinking Skill (HOTS) Towards Student's Reading Skill at the Eleventh Grade SMAN 10 Pandeglang in Academic Year 2025/2026" is accepted.

Based on the result above, the researcher concluded to there is significant effect of HOTS towards students reading skill at the eleventh grade of SMAN 10 Pandeglang.

E. Conclusion

Based on the result and discussion chapter, the conclusion can be concluded that teaching English in the eleventh grade of SMAN 10 Pandeglang using the High Order Thinking Skill is effective, especially on students' reading skill mastery in narrative text lesson. It can be seen in the data of descriptive statistic, comparing the result of post-test both experimental class and control class, after getting the treatment the result of experimental class is 68.17 and control class is 66.83, it means the result of experimental class is higher than control class.

In addition, based on the paired samples t-test with the level significant 5% (α =0.05), it found that the null hypothesis (Ho) was rejected and the alternative hypothesis (Ha) was accepted. Because the significance (2 tailed) result the experimental class was lower than level significance 5% (0.000 < α =0.05).

In short, based on the result that the High Order Thinking Skill is an effective teaching and learning reading skill in narrative text lesson at the eleventh grade of SMAN 10 Pandeglang. By using this HOTS , the students are more active and motivated to study reading skill especially in narrative text. As a result, it is possible to greatly enhance students' reading of narrative text.

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