

CHAPTER IV

RESEARCH FINDING AND DISCUSSION

A. Research Finding

A.1. Preliminary of Research

Before conducting the research, the researcher prepares all the necessary action plans so that the research can be carried out as expected. The following is an action plan for research conducted by researcher.

A.1.1. Determine the Learning Method

After the problem has been identified, the next thing to do is to determine the method that will be used in the action. After discussing with the supporting teacher, the *Discovery Learning* method can be determined which will be used in action.

A.1.2. Preparing Develop a Learning Implementation Plan (RPP)

The Learning Implementation Plan is a plan that must be prepared by the teacher before carrying out classroom learning. The lesson plans are prepared in accordance with the provisions in force at the Nurul Iman Private High School Tanjung Morawa.

A.1.3. Developing Research Instruments

Instruments are tools that observers use during research. In this study there are two types of instruments, namely instruments in the form of observation sheets and test sheet.

A.1.4. Determining Research Schedule

The time of the research was carried out in two cycles, namely cycle I and cycle II. Based on the agreement that has been determined with the tutor, the first cycle of research is on Thursday 04 November 2021 at 03.45-05.30 pm and cycle II on Friday 12 November 2021 at 03.45-05.30 pm

A.1.5. Collecting Student Pre-Test data

On October 27, 2021, the author conducted a pre-test in class XI MIA-1 SMA Nurul Iman Tanjung Morawa. which amounted to 33 students in one class, consisting of 9 male students and 24 female students. Researchers conducted a pre-test to determine students' writing skills in writing analytical exposition text. The researcher used the test as an instrument to collect data. The author has 45 minutes to write an Analytical Exposition text with a predetermined theme, namely "Covid-19" students are asked to develop their arguments according to the facts they see and feel. with the generic structure of analytical exposition text (Thesis, Argumentative, and reiteration).

Mean of Pre-Test:

$$\bar{x} = \frac{\sum X}{\sum N}$$

$$\bar{x} = \frac{2059}{33}$$

$$\bar{x} = 62.39$$

Completeness of Pre-Test:

$$P = \frac{\sum ni}{\sum no} \times 100\%$$

$$P = \frac{10}{33} \times 100\%$$

$$P = 30.3\%$$

There are 10 students who complete and 23 students who do not. the average value of the data above is 62.39 and the percentage of student completeness is 30.30%.

B. Research Implementation

The implementation stage is the researcher's step in collecting the data needed in the study. Therefore, in carrying out this research, it must be in accordance with the plans and research designs that have been made previously, besides that this research must be made carefully because it relates to the validity of the data. The following are the stages of research implementation in each cycle:

B.1. Cycle I

Cycle I research was conducted on Thursday, November 4, 2021 at 15.45-05.30 pm with 33 students attending. The material presented in this cycle is Analytical Exposition text. there are some stages of cycle I.

a. Planning

As well as doing other things, the implementation of classroom action research also requires preparation in order to minimize obstacles during the activity process. Before conducting classroom action research, researchers prepare various things that support classroom action using the discovery learning method. the following are things that must be prepared:

- 1) Making lesson plan (RPP)

Before carrying out the learning process, a teacher must make a lesson plan first, this aims to plan and prepare everything related to learning by implementing the discovery learning method on Analytical Exposition text material.

- 2) Preparing lesson materials

The learning material prepared according to the research title of the researcher is The Implementation of Discovery “Learning Method to Students Ability in writing Analytical Exposition Text at Eleventh Grade SMA Swasta Nurul Iman Tanjung Morawa”

Based on the title of the research above, the researcher took the Analytical Exosion Text material. where in this material discusses the definition, how to write Analytical Exposition text and generic structure of analytical Exposition Text.

- 3) Preparing Lessom Media

The learning media that will be used in the learning process are markers, whiteboards, materials that have been prepared by researchers and smartphones

- b. Action

- 1) Preparing

In the preparatory stage of learning using the discovery learning method in the learning process, researchers prepare classroom conditions so that they can carry out the learning process more conducive. conditioning the class, namely preparing the media and class settings that will be used in the discovery learning method.

After that, the researcher informed the students about the material to be studied before making the discovery. Furthermore, to make findings, researchers have prepared themes that will be used as benchmarks for student findings. The theme is about "Education", the researcher invites students to discuss with their classmates to discuss what themes they want to develop into analytical exposition text based on the findings and facts they get

2) Discovery Process

Before carrying out the discovery process, the teacher reassures whether the students really understand what has been explained and what has been instructed by the teacher. If there are still students who do not understand, the teacher will explain again until the students really understand.

If students have understood their assignments, the teacher invites students to look for findings, information and hypotheses related to the themes that have been given by the previous teacher. While waiting for students to make the discovery process, the researcher made observations in class on the learning process and student activity, if there were students who had difficulties, the teacher helped students by providing descriptions and related information.

3) Delivering results and drawing conclusions

This stage is the proof stage where after completing the

discovery process the teacher invites students to exchange information and discuss with their classmates then proceed to make presentations in front of the class to explain the results of the writings they have made and then respond to other students.

After discussing the findings and writings, the teacher should continue by giving appreciation and giving conclusions, but due to time constraints, by maximizing the time to do the post-test cycle I, the teacher did not have time to give appreciation and draw conclusions.

c. Observation

When the learning process takes place, the observation process is also carried out with the aim of knowing the level of success of the implementation of the method applied to the learning process, namely the discovery learning method and knowing the increase in student activity. Meanwhile, to know the increase in student learning outcomes, it can be seen from the test that has been given at the end of the cycle I.

1) Observation of the Implementation the Discovery Learning Method.

In carrying out this observation, the researcher was assisted by one observer (peer) to make observations in the classroom by filling out the observation sheet that had previously been made by the researcher. The following table shows the results of observations of the implementation of the discovery learning method in the cycle I:

Tabel 2. percentage of implementation of discovery learning method in cycle I

No	Observer	Percentage
1	Observer 1	80%
2	Observer 2	80%
Average		80%

From the percentage table above, we can see that the application of the discovery learning method has not been fully implemented because the teacher did not have time to give appreciation to students and did not give conclusions at the end of the cycle. Because it is necessary to make improvements in the next cycle

2) Observation Students Activity

In the observation, the observer uses the student activity observation sheet which is an instrument to measure student activity in the first cycle

The total number of indicators that appear is 214 so that the percentage of student learning activity can be calculated by the following formula:

$$P = \frac{\sum \text{indikator yang muncul}}{\sum \text{Indikator Maksimal}} \times 100\%$$

$$P = \frac{\sum 214}{\sum 495} \times 100\%$$

$$P = 43,23\%$$

Note:

Maximum Indikator = Total of Student x Total of

Indicator

$$\text{Maximum Indicator} = 33 \times 15$$

$$\text{Maximum Indicator} = 495$$

From the results of the calculation above, it can be seen that the percentage of student activity is 43.23%. From the percentage of activity above, it can be seen that student learning activity is still relatively "low". In the first cycle the achievement of student activity has not been achieved, because student activity which is fairly good is above 70%

3) Observation of students' competency skills

To observe students' competency skills, a test is carried out by giving a post-test at the end of the cycle to measure students' writing skills. The post test was held for 20 minutes and was attended by 33 students. The post-test result data can be seen by the formula below:

Mean of Post-Test Cycle I

$$X = \frac{\sum X}{\sum N}$$

$$X = \frac{2347}{33}$$

$$X = 71,12$$

Percentage of Post-Test Cycle I

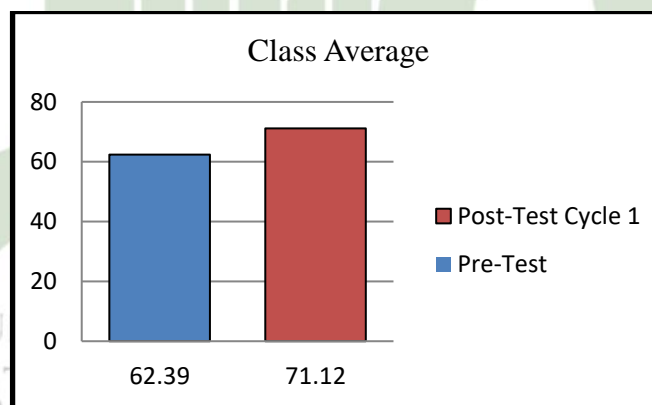
$$P = \frac{\sum ni}{\sum no} \times 100\%$$

$$P = \frac{22}{33} \times 100\%$$

P = 66,7%

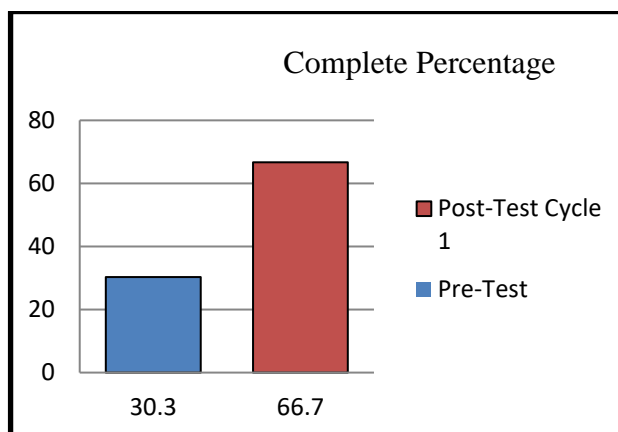
From the results of the calculation of the student's cognitive value above, it can be seen that the mean post-test in the first cycle is 71.12 of the 33 students who take the test the percentage of students' completeness in the first cycle is 66.7%, where the students who are included in the complete category are 22 students. and students who are included in the incomplete category are 11 students. based

on the table above, the following diagram can be made:



Picture 1. The average score of pre test and post test cycle I

From the diagram above, it can be concluded that learning using the discovery learning method can improve student competence, especially students' writing skills. this can be seen from the increase in the value after taking the action where the average class value before the action was taken was 62.39, then the action was taken in the first cycle, it can be seen that the value rose to 71.12. it can be concluded that after doing the first cycle the student's score increased by 8.73



Picture 2.

Percentage of completeness pre-test and post-test cycle I

The diagram above explains that the percentage of students' completeness in the pre-test is 30.3%. then given the first cycle, the percentage increased to 66.7%. The increase in the average percentage of completeness indicated that by applying the discovery learning method in the learning process it could improve students' understanding in receiving the material being taught.

d. Reflection

From the results of observations that have been carried out, the data obtained are the percentage of achievement of the implementation of the discovery learning method as much as 80%, student learning activity as much as 43.23% and completeness of student learning outcomes in the form of giving tests as much as 66.7%. the implementation of the discovery learning method is considered to have not been carried out optimally, student learning activity is also still relatively low and the percentage of completeness has not yet

reached the predetermined success indicators.

From the results of observations that have been collected, there are problems that occur in cycle I, the following is the description:

- 1) There are still some students who are less active in asking questions and are hesitant to ask for material that is still not understood
- 2) There are still students who are cool in their own world, busy themselves and don't have discussions with other friends
- 3) There are still many students who are not familiar with the application of the discovery learning method so that it makes them confused and takes time to adapt.
- 4) The implementation of the discovery learning method, which is not maximized, is proven that there are still steps that have not been carried out in cycle I.
- 5) The teacher is not optimal in managing time, so the time used is less, this is because the time used when taking
- 6) actions and discussions is too much, so the teacher does not have time to draw conclusions at the end of the action.

The problems above are the cause of the implementation of the discovery learning method in the learning process is not optimal. Therefore, it is necessary to reflect and improve and evaluate the above problems so that the actions that will be carried out in cycle II are more optimal in order to improve results in

accordance with predetermined success indicators.

B.2. Cycle II

Cycle II research was carried out on Thursday, November 11, 2021 at 15.45-05.30 WIB with 33 students. The material presented in this cycle is the same as the first cycle, which is about Analytical Exposition Text and in this cycle the focus is on improving and evaluating the shortcomings that occurred in the previous cycle.

a. Planning

As well as doing other things, the implementation of classroom action research also requires preparation in order to minimize obstacles during the activity process. Before conducting classroom action research, researchers prepare various things that support classroom action using the discovery learning method. the following are things that must be prepared:

1) Making lesson plan (RPP)

Before carrying out the learning process, a teacher must make a lesson plan first, this aims to plan and prepare everything related to learning by implementing the discovery learning method on Analytical Exposition text material.

2) Preparing lesson materials

The learning material prepared according to the research title of the researcher is The Implementation of Discovery “Learning Method to Students Ability in writing Analytical Exposition Text at Eleventh Grade SMA Swasta Nurul Iman Tanjung Morawa” based on the title of

the research above, the researcher took the Analytical Exposition Text material. where in this material discusses the definition, how to write Analytical Exposition text and generic structure of analytical Exposition Text.

3) Preparing Lesson Media

The learning media that will be used in the learning process are markers, whiteboards, materials that have been prepared by researchers and smartphones

b. Action

1) Preparing

In the preparatory stage of learning using the discovery learning method in the learning process, researchers prepare classroom conditions so that they can carry out the learning process more conducive. conditioning the class, namely preparing the media and class settings that will be used in the discovery learning method.

After that, the researcher informed the students about the material to be studied before making the discovery. Furthermore, to make findings, researchers have prepared themes that will be used as benchmarks for student findings. The theme is about "Healthy", the researcher invites students to discuss with their classmates to discuss what themes they want to develop into analytical exposition text based on the findings and facts they get

2) Discovery Process

Before carrying out the discovery process, the teacher reassures whether the students really understand what has been explained and what has been instructed by the teacher. If there are still students who do not understand, the teacher will explain again until the students really understand.

If students have understood their assignments, the teacher invites students to look for findings, information and hypotheses related to the themes that have been given by the previous teacher. While waiting for students to make the discovery process, the researcher made observations in class on the learning process and student activity, if there were students who had difficulties, the teacher helped students by providing descriptions and related information.

3) living results and drawing conclusions

This stage is the proof stage where after completing the discovery process the teacher invites students to exchange information and discuss with their classmates then proceed to make presentations in front of the class to explain the results of the writings they have made and then respond to other students.

After discussing the findings and writings, the teacher should continue by giving appreciation and giving conclusions. the teacher and all students draw conclusions andFurthermore, teaching

and learning activities are closed with the teacher giving appreciation, this aims to motivate, increase the enthusiasm and interest of students when carrying out the learning process using the discovery learning method again.

c. Observation

when the learning process takes place, the observation process is also carried out with the aim of knowing the level of success of the implementation of the method applied to the learning process, namely the discovery learning method and knowing the increase in student activity. Meanwhile, to know the increase in student learning outcomes, it can be seen from the test that has been given at the end of the cycle II.

1) Observation of the Implementation the Discovery Learning Method.

In carrying out this observation, the researcher was assisted by one observer (peer) to make observations in the classroom by filling out the observation sheet that had previously been made by the researcher. The following table shows the results of observations of the implementation of the discovery learning method in the cycle II:

Tabel 3. percentage of implementation of discovery learning method in cycle II

No	Observer	Percentage
1	Observer 1	100%
2	Observer 2	100%
Average		100%

From the percentage table above, it can be seen that the application of the

discovery learning method has been fully implemented, this shows that the implementation of the Discovery Learning method has been implemented optimally.

2) Observation Students Activity

In the observation, the observer uses the student activity observation sheet which is an instrument to measure student activity in the cycle II.

The total number of indicators that appear is 409 so that the percentage of student learning activity can be calculated by the following formula bellow:

$$P = \frac{\sum \text{indikator yang muncul}}{\sum \text{Indikator Maksimal}} \times 100\%$$

$$P = \frac{\sum 409}{\sum 495} \times 100\%$$

$$P = 82,26\%$$

Note:

Maximum Indicator = Total of Student x Total of Indicator

Maximum Indicator = 33 x 15

Maximum Indicator = 495

From the results of the above calculation, it can be seen that the percentage of student activity is 82.26%. from the percentage of activities above, it can be seen that learning activities have increased compared to cycle I. In cycle II the achievement of student activities has been achieved, Because the activeness of students in this cycle is included in the "Very Good" criteria which shows the percentage of students in the 80%-100% range.

3) Observation of students' competency skills.

To observe students' competency skills, a test is carried out by giving a post-test at the end of the cycle to measure students' writing skills. The post test was held for 20 minutes and was attended by 33 students. The post-test result data can be seen by the formula below:

Mean of Post-Test Cycle II

$$X = \frac{\sum X}{\sum N}$$

$$X = \frac{2590}{33}$$

$$X = 78,48$$

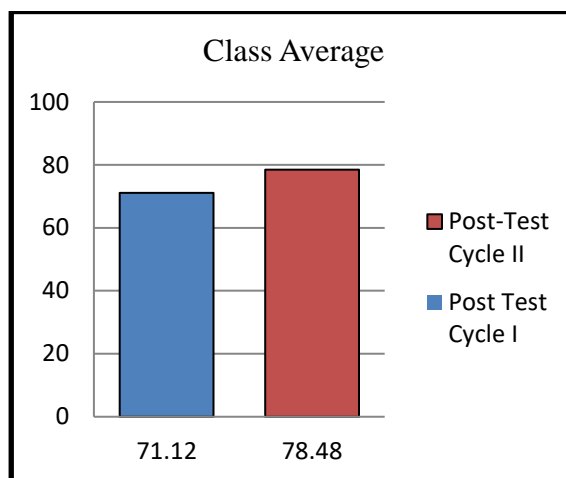
Percentage of Post-Test Cycle II

$$P = \frac{\sum ni}{\sum no} \times 100\%$$

$$P = \frac{30}{33} \times 100\%$$

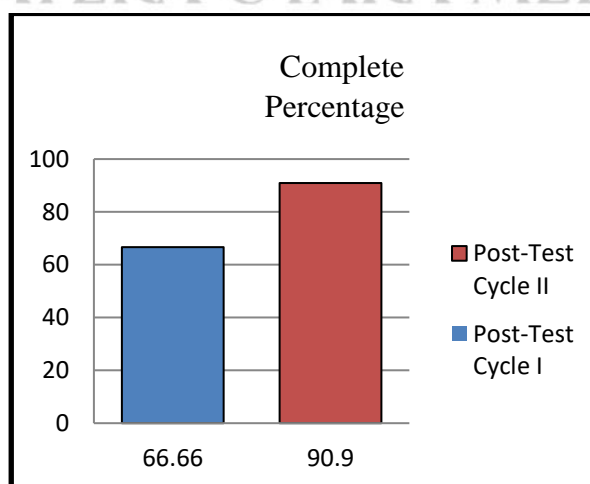
$$P = 90,9\%$$

From the results of the calculation of the student's cognitive value above, it can be seen that the mean post-test in the cycle II is 78,48 of the 33 students who take the test the percentage of students' completeness in the first cycle is 90,9%, where the students who are included in the complete category are 30 students. Students who are included in the incomplete category are 3 students. basedon the table above, the following diagram can be made:



Picture 3. the average score of Post-Test I and Post-test cycle II

From the diagram above, it can be concluded that learning using the discovery learning method can improve student competence, especially students' writing skills. this can be seen from the increase in the action taken where the average value of the class in the first cycle is 71.12, then another action is taken in the second cycle, it is seen that the value increases to 74.48. it can be concluded that after doing the second cycle the student's score increased by 3.73.



Picture 4. Percentage of completeness Post-Test Cycle I and post-test cycle II

The diagram above explains that the percentage of students' completeness in the post-test cycle I is 66.66%. Then given the action again in the second cycle the

percentage increased to 90.9%. The increase in the average percentage of completeness shows that the application of the discovery learning method in the learning process can improve students' understanding in receiving the material being taught. In addition, based on the diagram data above, it can be seen that the indicators of success in student learning outcomes have been achieved as desired.

d. Reflection

From the results of observations that have been made, the data obtained are the percentage of achievement of the application of the discovery learning method as much as 100%, student learning activities as much as 82.26% and completeness of student learning outcomes in the form of giving tests as much as 90.9%. The results of the overall percentage show that the discovery learning method can increase student learning activity, and the value of students' cognitive competence, especially students' writing skills, although not perfect as a whole, but can still be evaluated and better trained. In addition, the provision of class actions has been carried out in accordance with what was expected, namely in accordance with the indicators of success that had previously been made. Overall, the implementation of the classroom actions that have been carried out can increase students' active learning and writing skills.

C. Research Result

This classroom action research was carried out in two cycles where the process in each cycle has been discussed in "research implementation". The following are the results that have been obtained by researchers for two cycles.

C.1. Implementation of the Discovery Learning Method

The implementation of the discovery learning method in the first cycle is 80%. Then proceed with the action in the second cycle of the implementation of the learning method to 100%. So it can be concluded that the discovery learning method has been implemented optimally.

C.2. Student Learning Activities

The results of student activity data were obtained from observation sheets filled out by two observers during the learning process. the percentage of data results in the first cycle is 42.23%. Then in the second cycle the percentage of data results achieved was 82.26%. So it can be concluded that student learning activity increases with a predetermined success indicator limit of 70%.

C.3. Students' Competency Cognitive.

Student Cognitive Competency score data was taken from the post-test test to test students' writing skills in writing analytical exposition texts which were carried out at the end of each cycle. in the first cycle the student's average score was 71.12 and in the second cycle the student's average score was 78.48. Then the percentage of students' completeness in the first cycle reached 66.66% and in the second cycle it reached 90.9%. Based on these data it can be concluded that the value of students' cognitive competence increases according to the success indicators that have been made previously, which is 70% of students complete with a minimum score of 71.

D. Discussion

D.1. Implementation of Discovery Learning Method

Classroom action research (CAR) is research that aims to solve problems that occur in the learning process through action by examining the surrounding situation, analyzing problems and then finding ways to overcome them with the aim of improving and improving the quality of the learning process. In this case, the researcher observes a method, namely the discovery learning method because this method is one of the treatments to solve problems that occur in the class used for research.

Observations on the implementation of the discovery learning method were observed by two observers. observers make observations in accordance with the observation sheet that has been prepared. Observations on the implementation of the discovery learning method were carried out in two cycles where in the first cycle the percentage of the discovery learning method was carried out by 80%, then in the second cycle the percentage of the discovery learning method was 100%, so it can be concluded that the implementation of the discovery learning method in the second cycle increased. as much as 20%.

a. Cycle I

The implementation of the discovery learning method in the first cycle was achieved by 80%. This shows that the application of the discovery learning method was not implemented optimally because one of the steps of the discovery learning method was not implemented, namely drawing conclusions at the end of the cycle and not having time to give appreciation to the results of student writing.

the implementation of the discovery learning method was not optimal because the teacher did not pay attention to the time so that the lesson hours

were almost up because the teacher did a post test in the remaining time and then the teacher hurriedly closed the lesson so that the teacher passed the steps of the discovery learning method. The factors that caused the implementation of the discovery learning method to be not optimal in the first cycle were used as learning and evaluation so that in the second cycle the implementation of the discovery learning method could be carried out optimally. The following are the actions taken so that the implementation of the discovery learning method in cycle II can be carried out optimally:

- 1) Set the time for each step in the discovery learning method so that it does not exceed the time limit that has been set for the other steps, so that each step of the discovery learning method can be carried out optimally
- 2) The teacher makes more mature preparations and it must be ensured that the teacher really understands each step of the discovery learning method.

b. Cycle II

In cycle II the percentage of the implementation of the discovery learning method increased by 20% so that the percentage of the discovery learning method became 100%. From these percentages, it can be seen that the implementation of the discovery learning method in cycle II has been carried out optimally where the conclusion is drawn at the end of the action and the appreciation of the student's writing has been carried out. The following are the things that cause the implementation of the discovery learning method to be carried out optimally:

1) The teacher has been able to manage time efficiently so that the steps in the discovery learning method have all been carried out. In cycle II the discussion process did not exceed the time limit so that conclusions and giving appreciation could be carried out. Students are also getting used to the application of the discovery learning method so that the teacher does not need a long time to explain each procedure.

2) Teachers are more mature in the preparation and implementation of the discovery learning method.

The factors above are very influential on the success of the discovery learning method.

D.2. Discovery learning method on student learning activities

Student activity is all student activities during the learning process. The following are the indicators observed during the research: (1) Students pay attention to the teacher who is explaining the material (2) students pay attention to friends when talking (3) students read references from the subject matter (4) students ask the teacher about the subject matter (5) students answer when the teacher asks questions. (6) students are able to give statements (7) students listen to statements delivered by other students. (8) Students talk to other students during the lesson. (9) Students give feedback and question during the lesson (10) Students listen to other students who are presenting (11) Students discuss with other students related to the subject matter (12) Students respond to the material being studied (13) Students take note of the subject matter (14) Students respond

to other students' statements (15) Students receive feedback from other student.

Student activity was measured by making observations by filling out the observation sheet filled out by the observer. The data obtained in the first cycle is 43,23% and in the second cycle 82.26%.

a. Cycle I

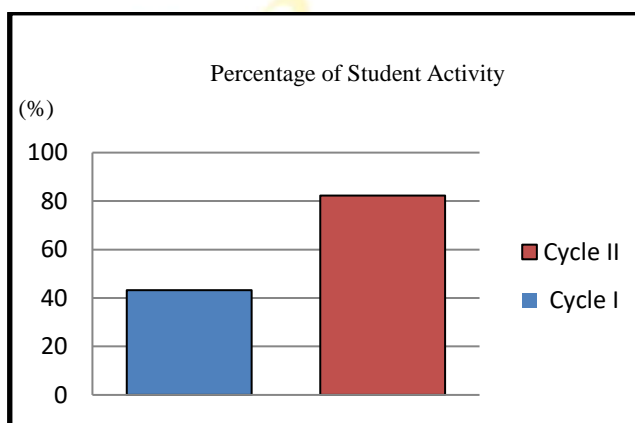
There are several weaknesses that occur in the first cycle, namely that many students are still embarrassed to express their opinions and are embarrassed to ask questions, besides that there are still many students who are busy with their respective activities so that few students are enthusiastic about participating in learning. Many students choose to remain silent and wait for other students to be active. Another weakness in learning in the first cycle is that students are still not familiar with the application of the discovery learning method applied by the teacher, so it takes a lot of time to adapt in order to adjust the implementation of learning.

b. Cycle II

In the implementation of the discovery learning method cycle II the percentage of student learning activity increased to 82.26%, this happened due to several factors, namely students were getting used to the application of the discovery learning method, the teacher could set the time according to the stages of implementing the discovery learning method.

Based on the data obtained from cycle II, each indicator has increased. So it can be concluded that learning using the discovery learning method is said to be successful with the learning objectives successfully achieved in cycle II, so the

research was stopped in cycle II. Based on research that has been completed for two cycles with different results, the following graph can be drawn:



Picture 5. Student Activity Improvement Chart

D.3. Discovery learning method on student cognitive competence (Writing Skill)

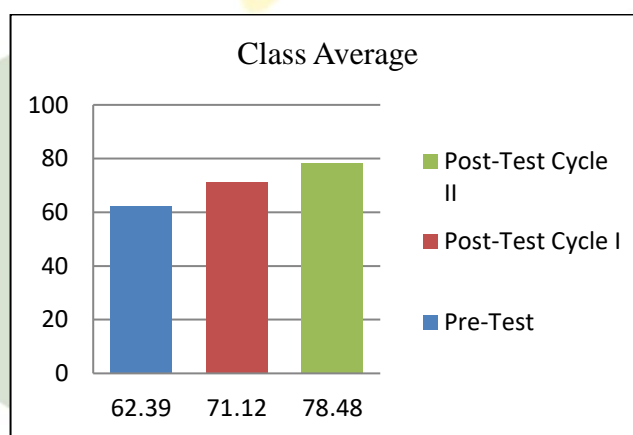
Based on the results of the research that has been done, it is obtained that the discovery learning method can increase the value of students' cognitive competence, especially the writing skills of class XI MIA-1 students on Analytical Exposition Text material. With detailed data as follows:

Tabel 4. Improving Student Cognitive Competence Values:

Student cognitive value	Pre-Test	Post Test Cycle I	Post Test Cycle II
Minimum Score	40	52	58
Maximum Score	76	86	90
participants with complete scores	10	22	30
Participants with Incomplete Score	23	11	3
Mean	62,39	71,12	78,48
complete percentage	30,3%	66,66%	90,9%

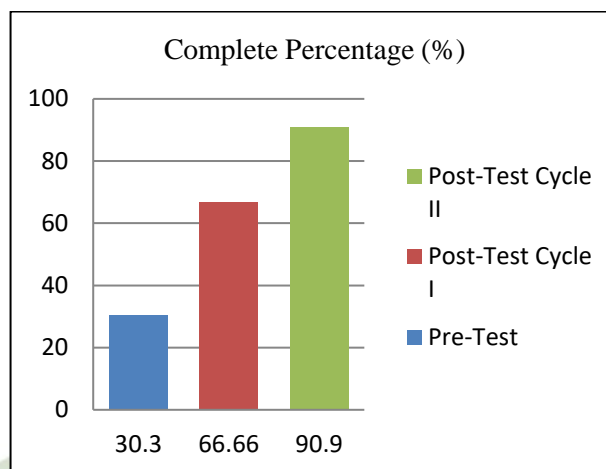
Based on the table above, it can be seen in the pre-test which was followed by 33 students before treatment, 23 students with incomplete scores and 10 students with complete scores with a maximum score of 76 and a minimum score of 40. In the first

cycle, the initial treatment was followed 33 students, 11 students with incomplete scores and 22 students with complete scores with a maximum score of 86 and a minimum score of 52. Then in the second cycle, treatment was given which was followed by 33 students, 3 students with incomplete scores and 30 students with complete scores with a maximum score of 90 and a minimum score of 58. Then the average value of the class can be graphed as follows:



Picture 6. Class Average Improvement Graph

Based on the graph above, it can be seen that the average value of students' cognitive competence in the pre-test was 62.39, then in the first cycle it increased with an average post-test score of 71.12 and in the second cycle it increased again with an average value. post-test 78,48. from pre-test to post-test cycle I the average value increased by 8.73 and from post-test cycle I to post-test cycle II the average value increased by 7.36.



Picture 7. Completion Percentage Improvement Graph

Based on the graph above, it can be seen that the passing percentage in the pre-test was 30.3%, then in the first cycle after treatment the graduation percentage increased by 66.66%, then given treatment in the second cycle the graduation percentage increased again by 90.9%. In the pre-test to post-test cycle I increased by 36.36% and post-test cycle I to Post-test cycle II increased by 24.24%

Based on the data obtained from the second cycle, namely the class average value of 78.48 and the passing percentage of 90.9%, it can be said that the indicators of success have been achieved. So that the research was stopped in cycle II and the discovery learning method could increase student activity and the value of students' cognitive competence in the form of writing analytical exposition text skills.