

THE APPLICATION OF CONTEXTUAL TEACHING AND LEARNING APPROACH TOWARD STUDENTS IN MTS MUHAMMADIYAH 31 LAMONGAN ON SCIENTIFIC WRITING

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ABSTRACT The scientific writing skills of students in ninth class of MTs Muhammadiyah 31 Cempleng Brondong Lamongan are still low and need to be improved. This study aims to describe the application of contextual teaching and learning to Junior high school students in scientific writing. This research is a classroom action research that consists of 2 cycles. The subject of this research is students students in ninth class of MTs Muhammadiyah 31 Cempleng. Data was collected using test, observation and interview. The data from the test results were analyzed using descriptive statistics, while data obtained by from observations, and interviews were described narratively. The results showed that the contextual teaching and learning approach was very effective in improving the scientific writing skills of ninth class students of MTs Muhammadiyah 31 Cempleng and the average score was 62.13, in the first cycle and the results increased again in the second cycle, 77.15.

Keywords: Contextual teaching and learning, scientific writing

INTRODUCTION

Indonesian language learning is experiencing rapid development. Various innovative and varied approaches, strategies, methods, and Indonesian language learning media have begun to be applied by Indonesian language teachers. The purpose of the change in learning patterns is in the context of achieving student competence in certain fields. Mastery of skills in the field of Indonesian also gets attention. Language skills are no longer just to be known, but to be mastered by students. Language skills have four components that influence each other (Doyin et al., 2002). The four language skills are listening, speaking, reading, and writing. One of the most difficult language skills to master is writing skill, because writing is an activity that requires practice and requires accuracy and intelligence.

Writing activities require extensive knowledge and a logical mindset. Extensive knowledge cannot be separated from reading activities, so writing activities must be balanced with reading activities. The reality on the ground shows that students tend to like things that are practical and instant. This fact becomes an obstacle and obstacle for students to carry out writing activities optimally. For this reason, so that students realize that everything that works well must go through processes and stages, writing learning activities must be carried out with the right approach. Writing activities must be carried out with regular and continuous practice, because mastery of writing skills is very beneficial for students for higher education levels and can be a provision for social life skills in society and answer future challenges.

Writing is very important to master because it can support success in other learning (Yulianeta, & Amandangi, 2021). Writing well is a major cognitive challenge, because it is at once a test of memory, language, and thinking ability (Kellogg & Raulerson, 2007). It can be interpreted that cultivating writing is aimed to improve the quality of human resources. The process towards an intellectual and educated Indonesian society can be started by mastering writing skills by students. Writing is not just writing, but an activity that combines intellectual knowledge and logical thinking which is then continued with the selection of an effective and communicative language to be expressed in written form. Learning to write has been included in the curriculum.

One of the writing activities contained in the junior high school curriculum is writing scientific papers. The scientific writing skills of junior high school students need to be improved, because based on observations of students' writings, they are usually more oriented to the number and length of essays, not to the content and benefits of essays (Doyin et al, 2002). Learning to write scientific papers must be carried out in sequential stages, so that students can produce written works as expected, because writing scientific papers is different from writing other essays, writing scientific papers is a technical activity whose form of writing must follow rules or rules. -certain rules (Doyin et al., 2002). Based on these facts, the researchers carried out a research entitled Improving Scientific Writing Skills with a contextual teaching and learning approach to ninth class students at MTs Muhammadiyah 31 Cempleng Brondong Lamongan.

This research was carried out at MTS Muhammadiyah 31 Cempleng Borndong Lamongan, because the mastery of scientific writing skills of the school students was still low and not maximized. This is in accordance with the information obtained from the teacher in the field of Indonesian language studies which states that, students have not been able to produce productive writings and are in accordance with the requirements of good and correct writing, students tend to make written works based on assignments from the teacher which must be in accordance with systematics. writing given by the teacher when giving the material, and compiling written work without paying attention to coherence, logic, and sentence effectiveness. In order to achieve students' scientific writing competence, the authors apply a contextual teaching and learning approach with an inquiry component.

In its implementation, the inquiry component is carried out in conjunction with the other 6 components of the contextual teaching and learning approach including constructivism, questioning, community learning, modeling, reflection, and actual assessment. The inquiry component is the core in using contextual teaching and learning (Selvianiresa & Prabawanto, 2017). Inquiry is an activity to find new knowledge by exploring old knowledge that students have built through questions, which can then be answered with inquiry (find) activities that are discussed with study groups and linked back with modeling, and ends with drawing conclusions with the teacher and assessing the work in truth.

Learning scientific work using a contextual teaching and learning approach to inquiry components is expected to improve students' life skills. Student life skills include academic skills, personal skills, social skills, and vocational skills. Life skills mastered by MTS students include academic skills, personal skills, social skills, while vocational skills are mastered by junior high school students, because they are vocational.

The contextual teaching and learning approach is an alternative approach in writing learning, because the contextual teaching and learning approach presents real situations and relates them to students' learning experiences. The success of a language teaching is strongly influenced by the approach and media used and the involvement of the teacher in the learning process. The contextual teaching and learning approach of the inquiry component used in learning scientific writing skills with a contextual teaching and learning approach to ninth class students at MTs Muhammadiyah 31 Cempleng Brondong Lamongan is expected to improve students' skills in writing scientific papers and improve students' life skills which include personal skills, social skills, and academic skills.

LITERATURE REVIEW

Writing skills

Writing skills are very important for students to have, because by writing someone can express their ideas and ideas in achieving certain goals. According to Durga and Rao (2018).), it is the system of written symbols, representing the sounds, syllables or words of language, with different mechanisms - capitalization, spelling and punctuation, word form and function. This understanding provides an understanding that writing activities are activities of pouring graphic symbols and compiling them as a meaningful language unit.

Scientific Works

Scientific work is the result of scientific writing. Scientific works are non-fiction writings associated with scientific ideas that have the main characteristic of objectivity of view (Kusumah, et al. 2003:3.6). Scientific work is basically a scientific report. The report in question can be in the form of reports on scientific activities, study activities, and research, both field research, laboratory, and library research. Scientific works as reports of scientific activities have various types. According to Doyin, et al. (2002: 8) the types of scientific works include, books, papers, working papers, articles, theses, theses, dissertations, and research reports.

Complementing the above theory, Wagiran and Doyin (2005: 14) classify the types of scientific works based on their functions into two; academic scientific works and professional scientific works. Academic scientific work is scientific work created for academic purposes with the guidance and responsibility of a more professional person, not published with more emphasis on the process rather than on the results that require testing to determine the quality of the work. The forms of academic scientific work are (1) paper, (2) thesis, (3) thesis, and (4) dissertation. Scientific works in the form of papers are often also called papers or writings. Scientific works in the form of theses, theses and dissertations are scientific works made to fulfill the requirements for achieving bachelor's degrees (for theses), masters (for theses), and doctorates (for dissertations).

Scientific works in writing must be in accordance with systematics and proper writing methodologies. The systematics of writing in scientific works consists of successive parts. Wagiran and Doyin (2005: 18) argue that the basic pattern of scientific work generally contains at least the standard parts; the introduction, body, and literature. The introduction section in a scientific work is the initial section that contains informative information about the scientific work. In the introduction section there are two types of introduction, the general introduction section and the specific introduction section. The introduction section in each form of scientific work is not the same. The introduction section on the type of scientific work in the form of a book is different from the introduction section on the form of papers, working papers, articles, theses, theses, dissertations and research reports. Some of the terms in the introduction section contained in all types of scientific works are the title and the name of the author. The introductory part that needs to be explained is the title, author's name (ownership line), abstract, keywords, foreword and introduction (Wagiran & Doyin, 2005:19).

Contextual Teaching and Learning Approach

The application of contextual teaching and learning in the United States originated from the views of classical education expert John Dewey who in 1916 proposed curriculum theory and teaching methodologies related to students' experiences and interests (Thelin, 2004). The philosophy of contextual learning is rooted in the progressivism of John Dewey. In essence, students will learn well if what they learn is related to what they have learned in relation to what

they already know, and if students are actively involved in the learning process at school. The main points of progressivism view that form the basis of the contextual teaching and learning approach are (1) students learn well if they can actively construct their own understanding of what is being taught by the teacher, (2) children must be free so that they can develop naturally, growing interest through direct experience to learn. stimulate learning, (3) teachers as mentors and researchers must have cooperation between schools and the community, (4) progressive schools must be a laboratory for conducting experiments.

Contextual learning recognizes that learning is something complex and multidimensional that goes far beyond various methodologies that are only oriented to practice and stimulation/response (stimulus/response) (Jhonson, 2002). Students become objects in learning activities, while teachers become facilitators in learning activities that invite students to discover knowledge, or absorb knowledge transferred through the teacher. In contextual learning, students are required to be critical, creative, and independent so that they can experience complex learning activities, wherever and whenever they can apply the knowledge gained at school.

The contextual teaching and learning approach is a learning concept that brings real-world situations into the classroom and encourages students to make connections between their knowledge and its application in their lives as members of society (Berns & Erickson, 2001). The concept of contextual teaching and learning approach is a new approach concept in competency-based curriculum that invites students to learn with fun and students will gain experience in each of their learning activities. The contextual teaching and learning approach changes the tradition from teacher-oriented to student-oriented, changing learning that is oriented to the completion of teacher material into a learning process oriented to empowering student potential and achieving student competence.

RESEARCH METHODS

Research design

The design of classroom action research conducted by the researcher is the design of classroom action research with the concept of Kemmis and Taggart (1992). Classroom action research is reflective in nature by taking certain actions in order to improve and or improve learning practices in the classroom professionally. Classroom action research is carried out in the form of a cyclical assessment process consisting of four stages; planning, action implementation, observation, and reflection.

Research subject

The subject of this research is the scientific writing skills of ninth class students of MTs Muhammadiyah 31 Cumpleng using a contextual teaching and learning approach to inquiry elements. Determination of the subject of this research is based on the facts found in the field at the time of the initial survey. The background for determining the subject of this study was based on the results of initial observations made by researchers at MTs Muhammadiyah 31 Cumpleng Lamongan. The class chosen is ninth class, the reason for choosing this class is based on the results of the scientific essay writing skill test of ninth class students which is the lowest compared to the results of the other class of scientific essay writing skills test at MTs Muhammadiyah 31 Cumpleng Lamongan. The number of students in ninth class is 40 students, consisting of 18 male students and 22 female students. The results of the scientific essay writing skill test for grade nine students are the lowest compared to other grade nine students at MTs Muhammadiyah 31 Cumpleng Lamongan.

Data Collection Techniques

Test

The test technique was carried out to obtain test data in order to measure the level of scientific writing skills of ninth class students at MTs Muhammadiyah 31 Cumpleng Brondong Lamongan. The test was carried out in cycle I and cycle II at the end of the lesson. The test was carried out at the end of the learning cycle I and cycle II. This test aims to measure the scientific writing skills of ninth class students of MTs Muhammadiyah 31 Cumpleng Borndong Lamongan which includes 8 aspects of assessment; 1) systematic writing of scientific papers, (2) logical thinking ability, (3) appropriateness of title and content, (4) the ability to use good and correct Indonesian spelling, (5) the ability to write paragraphs, sentences and words, (6) the ability to write citation sources, (7) the ability to write a bibliography and (8) the neatness of writing scientific papers. The tests that have been prepared by the researchers are given to students and carried out by students at the end of the learning cycles I and II. The test results in the first cycle were compared with the test results in the second cycle to determine the improvement of students' scientific writing skills.

Observation

Researchers conducted direct observations to observe writing skills learning activities in ninth class MTs Muhammadiyah 31 Cumpleng Brondong Lamongan. In observation activities, researchers use research observation sheets that have determined the aspects to be observed. Observation activities are carried out during teaching and learning activities, both inside and outside the classroom. Observation activities were carried out on ninth class students of MTs Muhammadiyah 31 Cumpleng Lamongan who were carrying out teaching and learning activities. The observation sheet is filled in by the researcher in accordance with the aspects observed and carried out during the learning activities. Students should be left as usual when participating in learning activities, so that the data obtained by the researcher is the actual situation in the field. The observation activities carried out by the researchers aimed to determine the life skills of students; personal skills, social skills, and academic skills that have been described and listed in the observation sheet. The observation sheet was filled in by the researcher during the learning activities in cycles I and II. Based on the observation activities carried out in cycle I and cycle II, it can be observed that the life skills of students and their improvement in learning activities to write scientific papers were carried out using a contextual teaching and learning approach to inquiry elements in cycle I and cycle II.

Interview

Interview activities were carried out using recording and note-taking techniques. The researcher used a voice recording device to record all the questions and answers contained in the interview process. After the recording activity was completed, the researcher recorded the recordings into written data from interviews with respondents in the low value group and the high value group. Interviews were conducted on respondents who had low and high writing skills test results. The group of students who had low scientific writing skills test results were 5 respondents, and the group that had high scientific writing writing skills test results was 5 respondents. Interviews were carried out after the results of the scientific paper writing skills test were recapitulated in cycle I and cycle II. The 10 students who were respondents with the researcher looked for a quiet and conducive place to conduct interviews. The results of the interviews were recorded based on the recordings of the interview activities.

Data Analysis Technique

The data that has been obtained in this study were analyzed quantitatively and qualitatively. Quantitative data analysis techniques were used to analyze quantitative data. This quantitative data was obtained from the results of students' scientific writing tests through contextual learning of the inquiry component. The data from the test results were analyzed using descriptive statistics by the calculation of numbers using statistical formulas and described. The steps for calculating the test data are 1) recap the scores obtained by students, 2) calculate the cumulative score from all aspects, 3) calculate the average score, 4) calculate the percentage. The data analysis technique of obtained data from observation and interview was carried out using qualitative categorization techniques, describing the data in a descriptive manner

RESULTS AND DISCUSSION

Pre-Cycle

The results of the scientific essay writing test for ninth class students of MTs Muhammadiyah 31 Cumpleng at the pre-cycle stage showed an average of 62.13. These results are classified as the lowest when compared to the results of the scientific essay writing test of other ninth class students at MTs Muhammadiyah 31 Cumpleng. The results of the scientific paper writing test of ninth class students at the pre-cycle stage showed an average of 62.13 and was included in the poor category. This can be seen in the following table 1.

Table 1. The Results of Pre-cycle Scientific Writing Skill Test

No	Category	Score	Frequency	Percentage	Average
1.	Very good	85-100	0	0,00 %	62,13
2.	Good	75-84	1	2,50 %	
3.	Fair	65-74	15	37,50 %	
4.	Bad	0-64	24	60,00 %	
		Sum	40	100 %	

Table 1 shows the number of students who scored in the very good category, only 1 student or 2.50% of the 40 students in ninth class scored 15 students or 37.5 students who scored in the sufficient category. %, and 24 students or 60.00% of ninth class students scored in the less category. The average score of the test results of scientific writing skills at the pre-cycle stage is 62.13.

The low test results are caused by several factors. The factors most experienced by students are the difficulty of determining the topic and theme of writing scientific essays and the difficulty of starting writing activities, the difficulty of pouring ideas or ideas into writing. Another factor is the lack of student interest in writing activities, students tend to be lazy and not enthusiastic in writing learning activities. Learning activities at this pre-cycle stage are carried out by the teacher classically, so students are bored and not eager to do writing activities.

Based on the results of the scientific essay writing test and the identification of the factors causing the low results of the scientific essay writing skills test for the ninth class students of MTs MTs Muhammadiyah 31 Cumpleng at the pre-cycle stage, it is necessary to take learning actions to overcome the problems and difficulties experienced by students in writing scientific essays.

Cycle I

The results of the test of scientific essay writing skills for students of ninth class MTs Muhammadiyah 31 Cempleng at the pre-cycle stage are not satisfactory, for that it is necessary to take action to solve learning problems experienced by students and improve scientific writing skills of students of ninth class MTs Muhammadiyah 31 Cempleng. The action taken by the researcher in the first cycle was learning to write scientific papers using a contextual teaching and learning approach to inquiry elements. The action of inquiry which was carried out in the first cycle was aimed at increasing students' interest in writing and improving the writing skills of students in grade nine MTs Muhammadiyah 31 Cempleng

The inquiry activity in the first cycle is a discussion activity to find knowledge about aspects of writing scientific papers independently through modeling. Ninth class students are formed into groups, each group consists of 5 people, then each group is given an example of the correct scientific paper, then each group discusses to determine the systematics of writing and the elements contained in the scientific paper. In addition, based on the indicators in the lesson plans that have been prepared, each group is asked to find out how to write the correct bibliography and source of citations.

The results of the scientific paper writing skill test of the nine grade students of MTs Muhammadiyah 31 Cempleng in the first cycle showed an average of 69.38. These results show an increase of 7.45 points from the results of the scientific essay writing test at the pre-cycle stage, which is 62.13. The results of the scientific paper writing skill test in the first cycle are in the sufficient category, this is evidenced by the data described in table 2 below.

Tabel 2. The Results of Cycle I Scientific Writing Skill Test

No	Category	Score	Frequency	Percentage	Average
1.	Very good	85-100	0	0,00 %	69,58
2.	Good	75-84	1	47,5 %	
3.	Fair	65-74	9	25,0 %	
4.	Bad	0-64	1	27,50 %	
		Sum	40	100 %	

The results of the test data analysis shown in table 2 can be explained that there are no students who get marks in the very good category, students who get scores with good categories are only 19 students or 47.50% of the total 40 students, students who get scores with categories enough for 10 students or 25.00% of the total number of students as many as 40, and students who get a score in the less category of 27.50% or 11 students. of 40 students.

The observation activities carried out in the first cycle used an observation sheet that included 11 aspects of observation oriented to student behavior which included personal skills, social skills and academic skills. Based on the researcher's observations about student behavior in learning activities of scientific writing skills for ninth class students with a contextual teaching and learning approach to inquiry elements in cycle I, it shows that ninth class students still have many shortcomings, especially in personal skills aspects of the ability to explore and find information, the ability to process information, the ability to solve problem creatively. The weakness in social skills lies in communication skills which are described in aspects of observing the activity of asking questions about the material, actively answering questions from the teacher, and active opinion. Weaknesses still exist in academic skills with aspects of the ability to formulate problems and the ability to carry out research, data collection.

The behavior of ninth class students that stood out during the inquiry was in the aspect of

observing the ability to cooperate with friends and the ability to discuss in a good, orderly, and active manner. Based on these conclusions, it can be stated that the achievement of life skills of ninth class students which includes personal skills, social skills, and academic skills is still lacking, meaning that new inquiry actions are needed, so as to improve students' life skills.

Based on the results of the interview analysis, it can be concluded that the high value group and the low score group are mostly interested in writing activities, but they still experience the same obstacles and difficulties. It is difficult to determine topics, arrange words, and sentences effectively into paragraphs.

Cycle II

Based on the results of the test of scientific essay writing skills for students of ninth class MTs Muhammadiyah 31 Cempleng at the pre-cycle stage, it is not satisfactory, for that it is necessary to take action to solve the learning problems experienced by students and improve students' scientific writing skills. The learning action taken by the researcher in the second cycle was learning to write scientific papers using a contextual teaching and learning approach to inquiry elements. The action of inquiry carried out in the second cycle was aimed at increasing students' interest in writing and improving the writing skills of the nine grade students of MTs Muhammadiyah 31 Cempleng based on the results of the first cycle which were still lacking. Inquiry activities in cycle II are outclass learning activities, conducting observations in the school environment.

The scientific paper writing skill test of ninth class MTs Muhammadiyah 31 Cempleng was carried out at the end of the second cycle of learning activities and the results of the work were assessed based on the guidelines for the assessment of scientific writing skills used in the first cycle; 1) proper systematics, (2) logical thinking skills, (3) The suitability of the title and content, (4) the ability to use improved Indonesian spelling, (5) the ability to write paragraphs, sentences, and words, (6) the ability to write citation sources, (7) the ability to write a bibliography, and (8) the neatness of writing scientific papers.

Based on the data analysis, the results of the students' scientific writing skills test in cycle II showed an average of 77.15. These results indicate an increase of 7.57 points from the results of the scientific paper writing skill test at the first cycle stage, which is 69.58. The results of the scientific paper writing skill test in cycle II were in the good category, reaching a score of 75.

Tabel 3. The Results of Cycle II Scientific Writing Skill Test

No	Category	Score	Frequency	Percentage	Average
1.	Very good	85-100	1	2,50 %	77,15
2.	Good	75-84	28	70,00 %	
3.	Fair	65-74	7	17,50 %	
4.	Bad	0-64	4	10,00 %	
Sum			40	100 %	

The results of the analysis of the test data shown in the table above can be explained that the students who scored in the very good category were 1 person or 2.50%, the number of students who scored in the good category was 28 students or 70.00%, the students who got the score with sufficient categories amounting to 7 students or 17.50% and students who get scores in the less category of 10.00% or 4 students. The results of data analysis in table 14 show an average of 77.15. Based on this fact, the results of the scientific paper writing skill test in cycle II were in the good category.

The test results in the second cycle increased for the very good category, increasing by 45% from the first cycle test results which were only 27.50% to 72.50. In contrast to the sufficient category in the aspect of neatness, the results of the second cycle decreased by 45% from the results of the first cycle of 72.50% to 27.50 %5. The observation activities carried out in the second cycle were the same as the observation activities carried out in the first cycle using an observation sheet which included 11 aspects of observation oriented to student behavior which included personal skills, social skills, and academic skills. The result of the observation is that the inquiry activities carried out in the second cycle can improve the life skills of ninth class students which include personal skills, social skills, and academic skills. This fact is based on the observation activities carried out by the researchers when the inquiry activities were carried out by students in groups. The increase in life skills occurs in every aspect of the observation listed in the observation sheet.

Interview activities in cycle II were carried out after the results of the second cycle of scientific writing skills test were completed. Respondents interviewed in cycle II were still the same as in cycle I, 5 groups who got high scores in the scientific writing skill test, and 5 groups of students who got low scores in the scientific writing skills test. The results of the interviews showed that there was an increase in interest in writing scientific papers, there were still students who had difficulties in writing scientific papers.

Based on the description above, it can be concluded that the contextual teaching and learning approach to inquiry elements is very effective in improving students' life skills; academic skills, personal skills, and social skills. Inquiry activities carried out in cycle I and cycle II can improve the ability to formulate problems and analyze problems, improve rational thinking skills, communication skills and collaboration skills for ninth class students of MTs Muhammadiyah 31 Cempleng. The element of inquiry in contextual teaching and learning approach is very effective in increasing students' interest in writing scientific papers

Improvement of Scientific Writing Skills for Ninth class Students by Contextual Teaching and Learning Approach

The results of the test of scientific writing skills for ninth grade students of MTs Muhammadiyah 31 Cempleng increased at each stage of the cycle, starting from the pre-cycle stage, the first cycle and the second cycle. This fact can be seen in the following table.

Table 4. The Average Score of the Test Results of Scientific Writing Skills in Action Stage, Cycle I and II

No	Stages	Average Score/ Category	Frequency					Percentage %			
			VG	G	F	B	Sum	VG	G	F	B
1	Precycle	62,13/ Bad	0	1	15	24	4	0.00%	2.50%	37.50%	60.00%
2	Cycle I	69,58/Fair	0	19	10	11	4	0.00%	47.5%	25.00%	27.50%
3	Cycle II	77,15/Good	1	28	7	4	4	2.50%	70.0%	17.50%	10.00%

Based on table 4, it can be seen the increase in the average value and frequency distribution of the pre-cycle stage, cycle I, and cycle II of the results of the scientific paper writing skill test of ninth class students. The average value of the scientific paper writing skill test of ninth class students at the pre-cycle stage is 62.13 with a frequency distribution of the results of the scientific paper writing skills test of ninth grade students which is categorized as very good, there is no good category, only 1 student or 2.50%, the sufficient category is 15 students or 37.50%, and the test results of students who are included in the less category are 24 students or 60 students' writing

skills test results of scientific papers for ninth class% at the pre-cycle stage are included in the less category, because more than 50% of students in ninth class is less skilled in writing scientific papers. The low test results are caused by several factors. The factors most experienced by students are the difficulty of determining the topic and theme of writing scientific essays and the difficulty of starting writing activities, the difficulty of pouring ideas or ideas into writing. Another factor is the lack of student interest in writing activities, students tend to be lazy and not enthusiastic in writing learning activities. Learning activities at this pre-cycle stage are carried out by the teacher classically, so students are bored and not eager to do writing activities.

These results are included in the poor category, so they need to be improved. To improve the scientific writing skills of ninth class students, it is necessary to take effective actions so that the results of the scientific paper writing skills test of ninth class students at the pre-cycle stage can be improved. After taking action in the first cycle using a contextual teaching and learning approach to the element of inquiry, it can be seen that the results of the scientific work writing skill test of the ninth class students in the first cycle in table 22 which shows an increase compared to the pre-cycle stage. The average value of the scientific paper writing skill test of ninth class students at the stage of the first cycle was 69.58 with a frequency distribution of students whose scientific work writing skills test results were in the very good category, none, the good category increased to 19 students, still the same as the action.

In the sufficient category the number of students is still the same as the pre-cycle stage, 10 students or 37.50%, and the less category is 11 students. In the good category increased from the number of 1 student in the pre-cycle stage to 19 students in the second cycle, and there was a decrease in the number of students in the less category of cycle I amounted to 11 students, while at the pre-cycle stage there were 24 students, so that the number of students who were less skilled at writing works reduced to 11 students.

The average value of the scientific paper writing skill test of ninth class students in the first cycle is included in the sufficient category, but these results have not reached the classical value of learning mastery for ninth class students of 75, so that to achieve student learning success it is necessary to take action to improve students' writing skills. scientific work. The next action will be to carry out learning activities to write scientific papers in cycle II using a contextual teaching and learning approach to inquiry elements. Based on table 22, it can be seen that the increase in the results of the scientific paper writing skills test from the pre-cycle stage, second cycle, and second cycle.

Based on the average value of the scientific paper writing skill test of ninth class students, the average score in the second cycle is 77.15 with a frequency distribution in the very good category of 1 student, in the good category the pre-cycle stage and the first cycle are increased by 28 students or 70.00%, students who are categorized enough are 7 students or 17.50%, the number of students who are in the less category is 4 students or 10%. This value increased by 15.02 from the average value of the pre-cycle stage of 62.13, and increased by 7.57 from the first cycle which had an average value of 69.58.

Based on the description of the results of the scientific paper writing skills test, the ninth grade students of MTs Muhammadiyah 31 Cempleng in the first cycle and second cycle in each aspect experienced an increase in the results of the scientific paper writing skills test from the pre-cycle, first cycle and second cycle stages. The improvement in the results of the ninth grade students' scientific writing skills test results from cycle I and cycle II in each aspect is shown in the following table.

Improvement of Life skills of Ninth class students including Personal, Social and Academic Skills

The students' life skills include personal, social and academic skills. Based on the results of observations and data analysis of the observation sheet, it can be concluded that the life skills of ninth class students have experienced. The increase in personal skill aspects of the ability to explore and find information in the second cycle is an increase in the category from the first cycle which is included in the less category, in the second cycle it increases to a good category. This is based on the results of the different reports of inquiry activities in cycle I and cycle II. In cycle I there is only one group that can explore and find information clearly, detailed and creatively, while in cycle II it has increased to 6 groups that are able to explore and find information. information clearly and in detail. Improvements also occurred in the aspect of the ability to process information. This can be seen from the results of the report on inquiry activities which were compiled systematically and informatively. In the first cycle there is only one group that is able to process information well, while in the second cycle it has increased to 7 groups that are able to process information well, systematically and informatively. In the aspect of creative problem solving skills, there is also an increase, this can be seen based on observations when inquiry activities were carried out in cycle I and cycle II. In cycle I only 1 group was able to solve problems creatively, this was based on the results of the formulation of the inquiry activity report in cycle I, while in cycle II all groups were able to solve problems creatively well, carrying out inquiry activities with the division of tasks in each. each personally.

An increase also occurred in the orderliness of students in participating in learning activities. In the first cycle many students behaved negatively, for example sleepy, talking to themselves, and frequently leaving class, while in the second cycle the negative behavior of students changed and decreased. All students are increasingly aware and able to position themselves and participate in learning activities in an orderly manner.

The increase in life skills also occurs in the aspect of social skills. Social skills consist of two skills, communication skills and collaboration skills. In the aspect of communication skills which are described with the active questioning aspect, the activity of answering questions from the teacher, the activeness of opinion and the ability to discuss actively and orderly have increased in the second cycle when compared to the first cycle. The aspect of the ability to cooperate with friends in the second cycle has increased, this is seen during the inquiry activities carried out in cycle II. In the first cycle, the ability to cooperate with ninth class students was good, while in the second cycle, it increased to very good. This is based on the process of inquiry activities carried out by each group in a compact and orderly manner, resulting in a good inquiry activity report. Inquiry activities carried out in cycle II really require good cooperation from each group member, and ninth class students are able to carry out inquiry activities in cycle II with good and compact cooperation which is marked by the division of tasks in each individual.

The third aspect of life skills is academic skills which includes the ability to formulate problems and analyze the ability to carry out research, data collection. In cycle II, both aspects have increased. This can be proven by the process of implementing the observation activities that were carried out smoothly and resulted in reports that could overcome the difficulties experienced by students in cycle I. In addition, the increase in the academic skills of ninth class students of MTs Muhammadiyah 31 Cempleng can be seen based on the results of the written assessment test. scientific students in cycle I and cycle II.

The increase in test results in cycle I and cycle II is directly proportional to the increase in student life skills which include academic skills and personal skills. Improved academic skills are

the ability to formulate problems and analyze problems. This is evidenced by the results of the scientific paper writing skill test of ninth class students at MTs Muhammadiyah 31 Cumpleng which increased from 69.58 to 77.15 in the first cycle. Improvement occurs in every aspect of scientific writing. Based on these results, it affects the improvement of students' personal skills, the process of writing scientific papers on the aspect of rational thinking skills or logical thinking, which is realized by the use of effective sentences and their development in paragraphs. The results of the test of scientific writing skills in the aspect of logical thinking skills in the second cycle showed an increase of 7.94% from the first cycle of 11.03 to 11.90 in the second cycle. Based on the test results, it can be concluded that the personal skills of ninth grade students in the aspect of logical/rational thinking skills have increased.

Based on the description above, it can be concluded that the contextual teaching and learning approach to inquiry elements is very effective in improving students' life skills; academic skills, personal skills, and social skills. Inquiry activities carried out in cycle I and cycle II can improve the ability to formulate problems and analyze problems, improve rational thinking skills, communication skills and collaboration skills for ninth class students of MTs Muhammadiyah 31 Cumpleng. The element of inquiry contextual teaching and learning approach is very effective in increasing students' interest in writing scientific papers.

CONCLUSION

Based on the results of the research and discussion, it can be concluded that the contextual teaching and learning approach to the element of inquiry is effectively used to improve the skills and interest in writing scientific papers of ninth class students of MTs Muhammadiyah 31 Cumpleng. The results showed that the test of scientific writing skills of ninth class students increased in three stages; the pre-cycle stage, the first cycle, and the second cycle. The results of the scientific paper writing skill test of ninth class students at the pre-cycle stage showed an average score of 62.13, while in the first cycle it increased to 69.58 and the results increased again in the second cycle, 77.15. The improvement of scientific writing skills of ninth grade students occurs in every aspect of scientific writing which includes systematic writing of scientific papers, logical thinking ability, appropriateness of title and content, ability to use enhanced Indonesian spelling, ability to write paragraphs, sentences, and words, writing skills source of citations, ability to write bibliography, and neatness of writing scientific papers.

Based on the results of observations that observed an increase in the life skills of ninth class students in learning activities to write scientific papers using a contextual teaching and learning approach to inquiry elements in cycle I and cycle II, there was an increase. This situation can be proven by the results of the observation analysis cycle I and cycle II which shows the results of the analysis of the observation sheet in the first cycle has an average of 29.32% and has increased in the second cycle to 60.64%. All students of ninth class are very enthusiastic in carrying out learning activities to write scientific papers with inquiry activities carried out in cycle II. The first improvement in life skills is in personal skills which include the ability to explore and find information, the ability to process information, the ability to solve problems creatively, and students who are orderly in participating in learning activities. The improvement of life skills in the aspect of social skills is the aspect of cooperation skills and communication skills. In the aspect of academic skills, which includes the ability to formulate problems and the ability to carry out research activities, the data collection skills that have not increased, are the active aspects of asking questions.

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