

Application of Numbered Heads Together Learning Model in an Effort to Improve Skills of Writing Argumentation Paragraphs

Juwita Suriani Zai^{1*)}, Rahmat Kartolo¹

¹⁾ Muslim Nusantara Al Washliyah University, Medan, Indonesia

^{*)} Corresponding Author: juwitasurianizai@gmail.com

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Abstract

This study aims to improve the argumentative writing skills of Class X students at SMK Negeri 1 Lolofitu Moi through the application of the Numbered Heads Together (NHT) model. This model was chosen to help students overcome difficulties in writing arguments. The research was conducted using Classroom Action Research (PTK) with 21 students as subjects. Data collection techniques included observation, field notes, interviews, questionnaires, documentation, and argumentative writing tests. Data were analyzed qualitatively and quantitatively, with validity ensured through peer discussions and triangulation. The study's success was measured by improvements in both learning processes and outcomes. The results show that the NHT model received positive responses from students, increasing their engagement and enthusiasm for learning. The average argumentative writing score improved significantly from 57.33 in the pre-action stage to 70.61 at the end of cycle I, and further to 77.04 at the end of cycle II, marking a 32.26% increase. Improvements were observed across various writing aspects: content (13.33%), organization (7.22%), vocabulary (26.94%), language use (17.54%), and mechanics (10.80%). These findings confirm that the NHT model effectively enhances students' argumentative writing skills.

Keywords: *writing, argumentation, numbered heads together model*

I. INTRODUCTION

The Indonesian language subject in schools occupies the most important position and determines the success in achieving student learning outcomes. The importance of the position of the Indonesian language subject is because it is a means to understand other subjects. In addition, this is also reflected in the objectives of teaching Indonesian which are related to the formation of attitudes towards Indonesian, language development and fostering the ability to use language in various communication events according to the context.

With human language will communicate and interact, this right cannot be separated from human activities therefore communication is very important for human life. Through language humans convey thoughts, inspirations and arguments and hopes. Also through language humans can pass on their experiences and knowledge to others. In compiling this study the author collects various problems that are related to education especially in the field of language namely how a student conveys arguments through speech acts, in an argumentative perspective. Tarigan (1983:1) said that "there are four language skills namely listening skills, speaking skills, reading skills, writing skills."

Language has a very important role in human life, therefore every individual must have knowledge and language skills in order to express their life needs and be able to solve everyday problems.

If the communication interaction process in the learning process is not good, the message delivered cannot be received well by students so that the learning objectives are not achieved.

Realizing writing skills for the development of education and science has caused Indonesian language lessons to be required at all levels of education from elementary school to college, coupled with the provision of sufficient time, especially to develop children's writing skills. Lack of skills can affect our level of writing. Writing as a way of communicating. Communication is a process of sending and receiving messages either through writing or speech. Tarigan said that writing is lowering or depicting symbols that describe a language understood by someone. Writing is a representation of part of the unity of language expression.

According to Tarigan, writing is to write down or depict graphic symbols that describe a language understood by someone so that other people can read the graphic symbols if they understand the language and graphic images. It can be said that

also writing is the process of describing a language so that the message conveyed by the writer can be understood by the reader.

The ability of a person to express ideas, thoughts, knowledge, science, life experiences in written language that is clear, coherent, expressive, easy to read, and understandable to others. Writing is the ability to organize or negotiate thoughts, ideas, concepts, and experiences using good and correct written language. Writing is an active, productive, complex, and integrated language skill in the form of expression and which is manifested in writing.

Writing is also a skill that requires the writer to master various elements outside of language itself that will become the content of a piece of writing.

Furthermore, Rusyana provides a definition that the ability to write or compose is the ability to use language patterns in written form to express ideas or messages. Writing skills include various abilities, such as the ability to master the ideas expressed, the ability to use language elements, the ability to use style, and the ability to use spelling and punctuation. Based on the concept above, it can be said that writing is indirect communication in the form of transferring thoughts or feelings by utilizing graphology, language structure, and vocabulary using symbols so that they can be read as represented by the symbol. Combining and analyzing each linguistic element in a composition is a must for writers. From here it will be seen how far the knowledge the writer has in creating an effective composition. The vocabulary and sentences used in writing activities must be clear so that they are easily understood by the reader. In addition, the writer's thoughts and feelings greatly determine the direction of writing a quality written work or composition. In other words, the results of a quality composition are generally supported by the language skills possessed by a writer.

Writing is to express ideas, thoughts, feelings, opinions clearly and effectively to the reader. Some of the purposes of writing are:

1. To provide information.
2. To convince or urge.
3. To entertain or please.
4. To express strong feelings and emotions.

Meanwhile, according to Suparno (2005;32) and Mohamad Yunus, the goals that a writer wants to achieve are as follows.

1. Makes the reader think and reason.
2. Make the reader aware of what is being reported.
3. Make readers have an opinion.
4. Make the reader understand.
5. Make the reader persuaded by the contents of the composition.
6. Make readers happy by appreciating the values put forward, such as truth values, religious values, educational values, social values, moral values, humanitarian values and aesthetic values.

Based on several opinions, it can be concluded that the purpose of writing is so that readers know, understand and comprehend the values in a writing so that readers also think, have opinions or do something related to the contents of the writing. In principle, the main function of writing is as an indirect communication tool.

Darmadi (2019: 3) states that writing has several important functions, namely :

1. As a means of finding something.
2. Bringing up new ideas.
3. Train the ability to organize and clarify various concepts or ideas that we have.
4. Train a person's objective attitude.
5. Helping ourselves to absorb and process information.
6. Trains us to solve multiple problems at once.
7. Makes us active and not just recipients of information.

Marwoto (Pricillyanda, 2019) states that writing has several functions, such as:

1. Deepen the understanding of a science.
2. Can prove and realize knowledge, ideas, and life experiences.
3. Can contribute experiences, knowledge, and ideas that are useful to society more broadly.
4. Improve work performance, and
5. Facilitating the development of science, technology and art.

The main function of writing is as an indirect communication tool. Writing makes it easier for us to feel and enjoy relationships, deepen our responsiveness or perception, solve the problems we face, arrange the sequence of experiences, can contribute intelligence.

The reasons behind the selection of this title are as follows:

1. In the author's opinion, the problem raised is the most interesting problem for the author to investigate that it is a problem that cannot be separated in the midst of society and education, therefore the author tries to analyze it as

well as possible so that it can be scientifically accounted for. For this reason, research needs to be conducted. To what extent are efforts to improve the ability to write arguments using the numbered head together method.

2. In accordance with the author's major, namely in the field of Indonesian Language. So it is fitting that the author has an interest in discussing the title above, so that with the discussion it will be known to what extent the students' abilities are in writing arguments.
3. The implementation of the research that the author conducted in the area where the author teaches so that it can reduce costs, facilitate communication in data collection activities in the field. Introduction to the problem is very important in a research activity, thus it will be able to smooth the research process.

II. METHODS

This study uses Classroom Action Research (CAR). CAR is a form of reflective study by the perpetrators of the action carried out to improve the rationale of their actions in carrying out tasks, deepen understanding of the actions taken, and improve the conditions in which the learning practices are carried out (Sanjaya, 2019).

In accordance with the type of research chosen, namely paction research, then this study uses the action research model from Kemmis and Taggart (Siswanto, 2018: 6) which is in the form of a spiral from one cycle to the next. Each cycle includes planning (plan), action (action), observation (observation), and reflection (reflection). The steps in the next cycle are revised planning. Action, observation, and reflection. Before entering the first cycle, preliminary actions were carried out in the form of problem identification (Siswanto, 2018).

In terms of language, an object can be interpreted as a thing, matter, or person that is the subject of a discussion or a thing that is targeted for research, attention. Meanwhile, according to the Big Indonesian Dictionary, it is a thing, matter or person that is the subject of a discussion: target, goal; complement, goal of the sufferer. While a study is the result of a study. Classroom action research comes from the English term Classroom Action Research, which means research conducted in a class to find out the effects of actions applied to a research subject in that class. While a study is the result of a study. Classroom action research comes from the English term Classroom Action Research, which means research conducted in a class to find out the effects of actions applied to a research subject in that class.

Data Collection

The data collection instrument through collaborative discussions between researchers and teachers in cycle I was compiled in the planning of cycle I. Meanwhile, in cycle II, this was intended to identify learning weaknesses and prepare a revised plan first. The instruments used in this study consisted of:

This is a learning tool used as a guide for teachers in teaching and is compiled for each lesson plan. Each lesson plan contains basic competencies, learning achievement indicators, specific learning objectives, and teaching and learning activities. Observations were conducted to observe student activities in the classroom. Observations of student activities will be confirmed with research documentation data in the form of research photos.

Data Analysis

Qualitative data in the form of increasing insight, knowledge and experience of students in writing arguments were analyzed using qualitative descriptive techniques. Qualitative data analysis was carried out through the stages of data reduction that had been collected, data presentation, and data conclusions as stated by Madya experts (Rinni, 2020).

Conclusions are made by taking the essence of the data presentation that has been organized in the form of short, concise sentences or formulas, but containing broad meaning.

Quantitative data in the form of student achievement improvements in this classroom action research were analyzed using quantitative descriptive analysis techniques. The data analyzed included students' work in the form of argumentative writing produced at the pre-action stage, cycle I and cycle II. Quantitative data were obtained by scoring students' work according to the scoring guidelines that had been made. The scores obtained by students in the three stages above were analyzed so that the magnitude of the changes (improvements) that had occurred and in what aspects the improvements occurred could be seen.

To achieve data validity, this study used triangulation techniques by utilizing sources. Triangulation was carried out by comparing observational data with interview data with students, and by comparing everything that is said in general (students) with everything that researchers say. In addition, to achieve data validity, Burns' validity criteria (1999) were also applied, citing Anderson et al. (1994) who put forward five validity criteria that are considered most appropriate to be applied to 'transformative' action research. The five validity criteria are democratic validity, outcome validity, process validity, catalytic validity, and dialogical validity which must be met from the beginning to the end of the research, namely from the initial reflection when awareness of deficiencies arises to reporting the results of the research (Suawarsih, 2019).

Democratic validity is related to the scope of research collaboration and the coverage of various opinions and suggestions (Madya, 2019: 38). To achieve this democratic validity, researchers collaborate in order to receive various complex opinions, namely from students and supervisors.

The validity of the results is related to the understanding that the action brings satisfactory results in the context of the research. The most effective results involve not only solving the problem but also putting the problem back into a framework in such a way that it gives rise to new questions (Suawarsih, 2019). To achieve the validity of these results, data collection of positive and negative results is carried out related to the process and results of writing arguments. This negative data is included because it is useful as complementary research data and the basis for the re-determination process in learning to write arguments in the next cycle.

Process validity raises questions about the 'trustworthiness' and 'competence' of the related research (Madya, 2019: 40). To achieve this process validity, activities are carried out to maintain the process that should take place in the research. Catalytic validity is related to the extent to which participants deepen their understanding of social reality in the related context and how they can manage change in it (Suawarsih, 2019). Dialogic/dialogic validity is parallel to the peer review process commonly used in academic research. Likewise, peer review in action research means dialogue with fellow practitioners, whether through collaborative research or reflective dialogue with 'critical friends' or other practitioner researchers, who can act as 'compromise counselors' (Suawarsih, 2019). To achieve this dialogic validity, dialogue is carried out between the researcher and the students involved in this research. The dialogue process is continuously attempted in order to achieve a repetition of views that can control the validity of this research.

III. RESULTS AND DISCUSSION

A. Discussion of Cycles

This chapter will describe the research results and their discussion in order to draw conclusions. The research data that will be described in general are information on students' responses to writing learning, implementation of classroom actions per cycle, and the results of improving students' writing skills. The research results are presented in detail based on planning, action, observation, and reflection which are equipped with a revision plan. The results of reflection in each cycle are combined more concisely after undergoing a reduction process.

At the action stage, the teacher carries out learning activities as planned, namely learning activities by applying the numbered heads together model in writing arguments. The implementation of the action is flexible and open to changes according to what happens in the field. Observation is an effort to observe the implementation of the action. Observations are carried out by researchers using the observation sheets that have been prepared.

This activity is carried out systematically during the lesson. Researchers systematically monitor the activities carried out by students during the learning process. Monitoring is carried out on student activity in learning and student work results. Monitoring is an activity to recognize and evaluate developments that occur with the actions that have been carried out. The function of monitoring is to evaluate two things: (1) whether the implementation of the action is in accordance with the action plan and (2) whether there has been an increase or positive change towards achieving the goals that have been set. After cycle I is completed, cycle II continues. The work stages of cycle II follow the work stages of cycle I. Cycle II is expected to be able to improve activities in cycle I. Reflections at each meeting are summarized again as a whole to obtain a general picture in each cycle.

Table 1. Results of the Initial Information Questionnaire on Students' Argumentation

No	Question	Yes	Sometimes	No
1.	Did you get a writing assignment from your teacher?	65%	35%	0%
2.	Do you enjoy getting writing assignments from your teacher?	10%	85%	5%
3.	Does your teacher explain writing lessons through lectures and not provide direct writing assignments either at school or at home?	15%	55%	35%
4.	Do you do writing activities because of demands from teachers?	10%	70%	20%
5.	Do you also do your own writing activities (for example writing short stories/poetry) apart from getting assignments from teachers at school?	5%	5%	90%
6.	Do you often read essays or other readings?	15%	55%	30%

7.	Have you ever received knowledge about writing arguments before? (from a teacher or reading a book)	25%	5%	70%
8.	Have you ever been given an argumentative writing assignment before?	5%	20%	75%
9.	Do you know the techniques/steps for writing arguments?	10%	20%	70%
10.	Are you interested in taking argumentative writing lessons with a different method? Discussion for example?	10%	20%	70%

Based on students' answers to question (1), it was obtained that the teacher gave students writing assignments. Students who answered yes were 65%, 35% answered sometimes and 0% answered no. This shows that the teacher has actually given students writing assignments. 66 Next, in question (2), Are you happy to get writing assignments from the teacher? 85% of students answered sometimes, 5% of students answered no, and 10% of students answered yes.

This shows the low interest and motivation of students to write. The possible cause is the lack of guidance and direction from teachers to students when giving writing assignments. Students' answers to question (3), Does your teacher explain writing lessons by lecturing and not accompanied by direct writing assignments either at school/at home? Shows that the teacher has included writing assignments after explaining about writing lessons by lecturing. This is in accordance with the percentage of students' answers, namely 55% of students answered sometimes, 15% of students answered yes, and 35% of students answered yes. Most students rarely write. Most of them only write short stories when there is a writing assignment from the teacher at school. The answer to question (4) from the questionnaire shows that only 10% of students do writing activities without any assignments from the teacher. Meanwhile, 20% only write when there is an assignment from the teacher and 70% of students answer sometimes write without any assignments from the teacher. This is reinforced by the answer to question (5) which shows that 95% of students do not and only sometimes do writing activities themselves (for example writing short stories/poems) other than because they get assignments from the teacher at school. Only 5% of students carry out their own writing activities (for example writing short stories/poetry) other than getting assignments from teachers at school.

Based on the answer to question (6), it was obtained information that in fact most of the students of class X of SMK Negeri 1 Lolofiitu Moi in the 2024-2025 academic year (55%) 67 rarely or only sometimes read essays in their entirety. The rest, 15% of students answered no and 15% had never read essays in their entirety. Regarding knowledge of writing arguments, 70% of students had never received knowledge about writing arguments before, either from teachers or reading books. Meanwhile, 25% of students only sometimes/a little knowledge about writing arguments before and 5% had received knowledge about writing arguments before.

Most students (75%) have never been given an argumentative writing assignment before. Meanwhile, 20% of students sometimes get argumentative writing assignments and 5% of students have been given short story writing assignments before. In relation to the knowledge of argumentative writing techniques/steps, it can be said that most students do not know the argumentative writing techniques/steps. This can be seen from the students' answers, namely that 70% of students do not know the argumentative writing techniques/steps and 20% of students only know a little about the argumentative writing techniques/steps. However, it turns out that there are 10% of students who know the techniques/steps for writing arguments. Finally, related to students' interest in writing arguments, initial information was obtained that students' interest in taking argumentative writing lessons with the new method was quite good, namely 55% of students answered that they were interested, 10% of students answered that they were slightly interested and only 35% of students were not interested in taking argumentative writing lessons with the lecture method.68.

The results of observations in the direct learning process in cycles I and II can be seen in attachment 1. If we look at it, there is indeed an increase in student activities in the learning process in each cycle, this illustrates that the Numbered Head to Gather learning model can improve students' ability to write arguments.

In addition to the questionnaire, initial information about argumentative writing skills was also obtained through an initial test (pretest). During this pretest, students were asked to write arguments with a free theme. The freedom of this theme is intended to make it easier for students to find a theme that is close to their their lives without any restrictions. During this pretest, students were given the opportunity to write arguments according to their knowledge and abilities after being explained by their teacher first, this was done because they had just learned argumentative writing in vocational school. During the argumentative writing practice, many students seemed to have difficulty, both in finding ideas and developing stories. In addition, students also seemed less enthusiastic in writing their work.

Writing learning is perceived by students as a difficult and boring lesson. During this pretest, students did not receive guidance and direction during the argumentative writing process. After the initial argumentative writing test was conducted, researchers and teachers analyzed the results of students' argumentative writing and obtained an average

argumentative writing score of 57.33. At this pretest stage, students did not yet fully understand the aspects that must be considered in argumentative writing, both those related to content, content organization, vocabulary, language use, and linguistic mechanics. Based on these data, it can be concluded that the argumentative writing ability of class X students of SMK Negeri 1 Lolofiitu Moi in the 2024-2025 academic year is still low. If deeper exploration and optimal guidance are carried out in the argumentative writing process, it is possible that students' potential in writing arguments will be further explored and their work will also be better and worthy of publication. Based on the results of the initial information questionnaire on argumentative writing and the initial argumentative writing ability test for class X SMK students, students are still not optimal. Students' interest in writing arguments is also still low and needs to be re-motivated.

For that, it is necessary to make improvements and guidance in the process of learning to write so that students' interest and ability in writing arguments increases. Through the Numbered Heads Together method in learning to write arguments, it is expected to improve the quality of learning to write arguments and improve students' ability in writing arguments. So far, the process of learning to write arguments has only been limited to analyzing the elements of argumentative writing and writing arguments without planned guidance so that learning to write arguments is considered difficult and boring. Through the numbered heads together method in writing arguments, which uses the discussion method, it is expected to improve students' ability in writing arguments.

In addition, in the numbered heads together method, the teacher acts as a facilitator and motivator during the writing process. In addition, the teacher must also guide students in the learning process from the beginning to the end.

This classroom action research is entitled "Implementation of the Numbered Heads Together Learning Model in an Effort to Improve Argumentative Paragraph Writing Skills in Grade X Students of SMK Negeri 1 Lolofiitu Moi in the 2024-2025 Academic Year". This research was conducted in two cycles for 5 weeks. The schedule for implementing the action was arranged together with the Indonesian Language and Literature teacher who taught in the class.

B. Cycle I

The first meeting of cycle I began by informing the competency standards and basic competencies of learning to write argumentative essays that would be studied. The teacher provided initial motivation to students that writing arguments was actually easy. Ideas or topics can also be taken from simple things and close to their daily lives. Furthermore, the teacher explained that this learning would use the discussion method. The discussion that would be conducted at the meeting applied the numbered heads together model.

Next, there is a question and answer process regarding the Numbered Heads Together model between the teacher and students. After the students are deemed to understand enough, it is continued by dividing the groups based on the material that has been prepared by the researcher with the approval of the subject teacher. The group division is determined by the teacher for the effectiveness of learning. After the groups are formed, the teacher reminds the explanation of the numbered heads together model.

In this first cycle, the teacher suggested to the researcher not to use the five-paragraph essay structure, so that students would not feel too burdened, because basically the competency standards and basic competencies of Indonesian language for grade X SMK students were only at the argumentative paragraph level. Therefore, looking at the results of the pretest, the teacher suggested focusing more on material related to argumentative writing. Furthermore, the students who had formed into groups were given materials that would be used as discussion materials. Each group member received different materials, after which they were grouped based on the same material to discuss as an "expert" group. The teacher tried to enliven the class by providing motivation that the discussion was fun and the success of the discussion would determine their understanding of argumentative writing.

Whether or not they understand argumentative writing is up to them. Therefore, the teacher reminded them repeatedly to be serious in the discussion process. Some groups still seemed to have difficulty understanding the material given, the teacher and researcher actively guided them. The discussion lasted almost two teaching hours. The remaining few minutes were used by the teacher to reflect on learning.

Learning activities in the second meeting of cycle I were continued with a second stage discussion. Members of the expert group returned to their original groups and they explained to each other the material they had understood. The teacher and researcher guided the discussion. Occasionally, the teacher reminded students to ask questions about things they did not understand from their group mates' explanations. The discussion was quite lively, occasionally there were discussions between groups about certain materials.

The discussion in the original group lasted for 60 minutes. After the discussion was over, the teacher gave the students an assignment to write an argumentative essay of at least four paragraphs. Some students were able to do the writing quite quickly, but there were some students who occasionally still asked the teacher and researcher. After that, about ten minutes before the lesson ended, the teacher asked the students to exchange their writing with their deskmates to be given input as a learning experience for students to edit their friends' writing. After that, the writing was returned to its

owner. When the lesson ended, students were asked to collect their respective writings on the teacher's desk to be analyzed by the teacher and researcher.

After the practice of writing argumentative and reflective essays carried out by the researcher together with the Indonesian Language and Literature teacher, the researcher and teacher conducted an evaluation of the treatment process in cycle I. This evaluation included the impact of the action on the learning process (process success) and learning outcomes (product success).

a) Process Success

During group discussion activities, students looked active and enthusiastic. They seemed to enjoy the learning process more. Several students were seen enthusiastically asking questions, responding to questions from the teacher, discussing with friends about their writing, and trying to write good argumentative essays. Students were guided and given direction at each stage of the discussion. The teacher also felt the same way, that the numbered heads together discussion model was quite helpful for students in writing argumentative essays. The teacher guided the students enthusiastically, the teacher guided and controlled the discussion process in each group, and reminded students repeatedly to be serious in discussing. This was as stated in the field notes in cycle I.

One of the discussion activities of the numbered heads together model is expert group discussion. In this discussion, students are quite enthusiastic. Several students provide input and objections to each other in this discussion stage, they are given the freedom to express their opinions. It is seen that there is occasional debate and they involve the teacher for resolution.

b) Product Success

The success of the product can be seen from the results of writing argumentative essays after being given action (cycle I). The results when compared to the results of the pretest/initial test (before being given action) show an increase. The results of the posttest cycle I showed an average value of 70.61 while the average pretest value was 57.33. Thus, there has been an increase of 13.28 points or an increase of 23.16%. After being given action in cycle I, students have been able to present argumentative writing in the form of essays quite well. The presentation of the elements that build the writing is quite good and has increased compared to the initial test. The increase that occurred in cycle I can be seen in the following table.

Table 2. Improvement of Aspects in Writing Argumentative Essays Using the Numbered Heads Together Model

Element	Pre-action	Average Value Cycle I	Cycle II	Improvement	Percentage Improvement
Vocabulary	8.67	9.22	11.12	2.45	28.2583
Users					
Language	13.78	14.25	16.25	2.47	17.9245
Mechanics	7.22	8.00	8.00	0.78	10.8033

Based on the data above, it can be seen that almost all aspects have improved. Students have less difficulty finding and developing ideas to be written into argumentative essays because they receive guidance and direction from the teacher.

C. Cycle II

The actions taken in cycle II are almost the same as the actions in cycle I. The difference is, there are several things that need to be improved and emphasized more in the discussion process and learning to write argumentative essays with the numbered heads together model in cycle II. In cycle II, the discussion process is carried out for a longer time. This is done so that students understand the material well. In addition, the material provided is more specific. The discussion material provided is an example of an argumentative essay structured with a five-paragraph essay accompanied by an explanation of each paragraph. Members of the expert group gather to discuss the material that has been obtained. The expert group discussion process is fully guided by the teacher and researcher. The teacher provides 2 full learning hours for the expert group discussion process.

The argumentative writing learning activity at this meeting began by informing the students of the results of the argumentative writing assessment written during cycle I. Next, the teacher explained again the steps for writing an argumentative essay using the numbered heads together model. Thus, it is expected that all students can carry out all the series of activities in writing an argumentative essay well. After that, the teacher gave directions that today the learning process will be carried out with expert group discussions, and continued to the stage of drawing conclusions from the results of the discussion and learning reflection. Students are asked to be serious in understanding the material that has

been provided. The teacher guides the discussion so that they can further improve the quality of their discussions by paying attention to the level of understanding that they must absorb. After the discussion is finished, and conclusions have been drawn by each group, the teacher guides students to hold a reflection on today's learning.

Today, the learning process continues at the original group discussion stage. The members of the expert group return to their original group to teach the material that has been understood to the original group. At this stage, students are focused on asking and answering questions to each other, and re-discussing the material that has been understood in the original group. The discussion process is guided by the teacher and researcher. Occasionally, several students ask the teacher and researcher. This discussion process is carried out for 2 teaching hours or around 90 minutes. This is done, considering that the discussion process time of the original group in cycle I meeting II which is only 60 minutes is considered insufficient. This is as stated in field note number 6. The first activity, each member of the expert group returns to their original group. After each member of the original group gathers, they discuss the material that has been mastered. After the discussion is complete, the teacher asks several students to convey the results of their understanding of the material in the class forum. When the learning hours end, the teacher guides students to reflect on the day's learning.

Today, the learning process continues to the argumentative writing stage. Students are asked to write an argumentative essay in a five-paragraph essay format. Before writing an argumentative essay, students carry out their argumentative activities that they have written in cycle I. At this stage, students are focused on examining the accuracy of the content, content organization and mechanics, especially spelling errors, punctuation, and argumentative writing techniques, especially the thesis and thesis support. Before students edit their writing, the teacher explains again in outline what things must be considered in editing. The things that must be considered are the effectiveness of the thesis, the development of the thesis and writing mechanics. The first activity, students reread their respective writings and correct mistakes and add deficiencies contained in the essay. After completing the editing process, the teacher asks students to rewrite the argumentative essay in the form of a five-paragraph essay. After the learning hours end, students are asked to collect their writings to the teacher's desk, and the teacher guides them in reflecting.

After the practice of writing arguments and reflections conducted by researchers together with Indonesian Language and Literature teachers, researchers and teachers conducted an evaluation of the treatment process in cycle II. This evaluation includes the impact of actions on the learning process (process success) and learning outcomes (product success).

a) Process Success

Based on observations made during the argumentative writing learning process that took place in cycle II, there was a positive attitude. The argumentative writing learning activity using the numbered heads together model was welcomed by students and teachers. In this cycle, students and teachers both felt happy during the learning process. Students were active in discussion activities, several students were seen asking and responding to friends' questions, asking the teacher during the process of writing and editing friends' writing, and writing argumentative essays well. Students did not feel bored even though this argumentative writing learning was carried out in two cycles with almost the same activities. Through the numbered heads together model, both teachers and students felt helped in the argumentative writing learning process. The teacher guided and reminded students to be serious in learning while occasionally answering students' questions well.

Learning to write arguments with the numbered heads together learning model is very helpful for students in the writing process. Students can present elements of argumentative writing well in terms of content, content organization, vocabulary, language use, and language mechanics. The role of the teacher during the learning process greatly supports students' success in writing arguments. The teacher as a motivator and facilitator provides direction and guidance to students during the learning process, especially to students who have difficulty in the discussion process. In addition, the role of students also greatly determines the process of writing arguments by continuing to practice writing.

b) Product Success

The learning outcomes in cycle II showed that the application of the jigsaw method in learning to write arguments greatly helped students in practicing writing arguments. The numbered heads together model was able to improve students' ability in writing arguments. The increase in results/products can be seen in the writing results which increased compared to the initial test scores and cycle I. When compared to the average score in the pretest, there has been a significant increase in cycle II. The following is a table of the increase in the average score in writing arguments in cycle II compared to cycle I.

Table 3. Increase in the average value of argumentative writing in cycle II compared to cycle I and pretest

NO	Average value		Improvement	
	Pretest	Cycle I		
1	57.33	70.61	13.28	23.164137
	Cycle I	Cycle II		
2	70.61	77.04	6.43	9.106359

Based on the table above, it can be seen that the average value of argumentative writing in each cycle has increased quite significantly. Before the action was taken, the average value of short story writing was only 57.33. After the action was taken in cycle I, the average value of short story writing became 70.61. Thus, there has been an increase of 13.28 points or 23.16%. Then, it was continued with cycle II with an average value of short story writing of 77.04. This means that there was an increase of 6.43 points or 9.10%. The increase in cycle II was not as large as the increase in cycle I because the results of students' work in cycle I were quite good, but there were still several aspects that needed to be improved, based on the argumentative writing assessment guidelines. The aspects in question are the content and organization of the content, as well as linguistic mechanics. Based on these data, it can be concluded that learning to write arguments using the numbered heads together model is able to improve students' argumentative writing skills

D. Discussion

Based on the initial information questionnaire on writing arguments, it is known that most students have never been given an argumentative writing assignment before, and most of them do not know the techniques/steps for writing arguments. The teacher has actually given students writing assignments. However, the assignment was not accompanied by intensive guidance and direction. This has a negative impact, namely decreasing students' interest and motivation in learning to write, especially writing arguments. After being explained about the writing material, not all students immediately understand it clearly and can immediately practice it and produce a work in the form of writing. There are still many students who are confused about writing their ideas in writing so that they still need guidance even though the teacher has explained the theory of writing. As a result, many students assume that writing is something difficult and boring. In fact, to be able to write good arguments requires perseverance and continuous practice. This is in contrast to the attitude of teachers who do not provide guidance, direction and direct assistance while students are in the process of writing. The following are the results of field notes during the pretest (initial test) of argumentative writing for class X students of SMK Negeri 1 Lolofiitu Moi in the 2024-2025 academic year (available in the attachment). The teacher begins the meeting by saying hello.

After that, the teacher took attendance of the students. All students were present. Next, the teacher informed that starting today, they would learn to write arguments. The teacher also informed that today there would be an activity to identify the characteristics of argumentative paragraphs from the example paragraphs in the companion book. Then, an initial argumentative writing test would be held by the researcher. Then the teacher gave the researcher the opportunity to introduce himself. Next, the teacher guided the students to identify arguments and continued with an explanation from the teacher. After the explanation was finished, a question and answer session was continued. The learning ended with a reflection that coincided with the end of the lesson. The second meeting in this pre-action cycle was continued with the activity of writing argumentative paragraphs. The teacher informed that today there would be an initial argumentative writing test by the researcher. Furthermore, the teacher explained the process of writing arguments at this initial test stage. Students were asked to write an argumentative paragraph with a free theme. Writing ideas can be taken from everyday life experiences. Many students responded to this assignment by complaining. Other information obtained from the initial information questionnaire was the use of a traditional approach by teachers in teaching writing lessons. The model used was the lecture method so that learning in class felt monotonous. Students felt bored and less enthusiastic about participating in writing lessons. This caused students' interest and motivation in writing to be low. This can be seen from the statement that most students were less interested in participating in argumentative writing lessons.

In addition, students are also not interested in developing their writing skills outside of class. In other words, they write only to fulfill the teacher's assignment. In the writing process, students should be directed to develop ideas from things or experiences that are close to their lives. Furthermore, a draft is prepared before writing it down directly. The writing made by students cannot be done in one go. Revision and editing are still needed. In addition, a new method is needed for the success of learning. With such a mentoring process, students will feel happy and accustomed to writing activities. The confusion they experience when writing can be overcome with others, both fellow friends and teachers. In addition to the questionnaire, to determine students' initial abilities in writing arguments, an initial test (pretest) was conducted. The results of the pretest showed that the argumentative writing ability of class X students of SMK Negeri 1 Lolofiitu Moi in the 2024-2025 academic year was still low. The average score obtained was 57.33. When the initial test was conducted,

students found it difficult to express ideas into writing and develop their writing. Most of them also did not know the techniques for writing arguments.

The implementation of argumentative writing learning with the numbered heads together model that has been implemented in two cycles focuses on the form of 95 structured argumentative writing activities. Teachers must pay attention to all students in this argumentative writing practice in order to obtain optimal results. This learning starts from exploring ideas to the editing stage. Based on the results obtained in cycles I and II, all aspects of the argumentative writing assessment have increased. The activities of teachers and students have also increased so that learning is more effective and enjoyable. Cycle I learning begins with the formation of original groups, distribution of materials and continued with the formation of expert groups. After the expert groups are formed, discussions begin in two stages. The first stage is expert group discussions and continued with discussions of original groups. Learning continues with the provision of examples/models of argumentative writing, exploring ideas, compiling drafts or initial frameworks, the stage of compiling manuscripts, revisions, and editing. Based on the results of observations, some students are still not serious about following the discussion process. Some students look less active and noisy in class. (for more details see the attachment). Based on the field notes, it can be seen that in cycle I, the first meeting there were still students who were not able to follow the lesson well. Learning in cycle I, the second meeting, was continued with the discussion stage of the original group, writing argumentative essays and editing. The teacher actively visited the groups to help students who were still having difficulties. Students took turns consulting the teacher and the teacher served them happily. Development of the learning process in cycle I.

The second meeting can be seen in the following excerpt from the field notes (see the attachment for more details). One of today's activities was a discussion of the original group. During the discussion process, several students were seen to be less serious. Then the learning continued with writing argumentative essays with a free theme. Students were given time to write essays, some students were still confused about determining the idea of the writing so that the teacher had to explain it again. The activity of editing friends' writing was also not optimal because the students were not serious enough. The improvement achieved in cycle I was not optimal. There were several aspects in writing arguments that had not achieved optimal results. For that, it still needs to be improved again. The activities of teachers and students during the learning process have increased, although not very good. This can be seen from the field notes above. There are still many students who find it difficult to explore ideas to be written into argumentative writing. It also appears that in the editing stage there are still several students who are not serious about improving their friends' writing. Furthermore, the action was continued in cycle II because the results of the actions in cycle I had not shown optimal results. The actions in cycle II were almost the same as the actions carried out in cycle I. Learning in cycle II focused on the discussion process and students' understanding of the material. Furthermore, these aspects will be improved again in cycle II. As a result, several aspects that were still less than optimal in cycle I have experienced quite significant improvements in cycle II. Activities in cycle II also experienced more improvements. For example, in the discussion stage of the original group and writing argumentative essays, which in cycle I there were still many students who were not serious, in cycle II they were more serious and earnest. Cycle II learning has experienced quite significant improvements. Judging from the learning process in the classroom, students feel happy and more helped in writing arguments using the numbered heads together model. The writing results are also quite good.

Based on observations of various teacher and student activities in the process of learning to write arguments using the numbered heads together model from cycle I to cycle II, there is a significant increase in the quality of learning. The shortcomings that still exist in cycle I have been successfully improved in cycle II. This argumentative writing learning takes place with the implementation of actions. Learning to write arguments using the numbered heads together model takes place in 4 stages. The stages in question are the expert group discussion stage, the original group discussion, the exploration of ideas, Students feel helped in writing arguments with these stages. In addition, learning to write arguments becomes more enjoyable, both for students and teachers. The results of student writing are also better than the previous cycle. Learning to write with the numbered heads method is very helpful for students in the writing process. Students can present elements of good writing. During the learning process, teachers play an important role in supporting student success. Teachers act as motivators and facilitators to provide encouragement and direction to students during the writing process. In addition, the role of students is also very important in the process of producing writing by continuing to practice to produce good writing.

The increase in student learning activities has a positive impact on improving learning outcomes. The increase in the quality of argumentative writing results can be seen from the development of students' final work results during the two cycles. The results of this writing are grouped into three levels, namely low, medium, and high. The writing results with a low category are the work of students with scores between 45-66. The results of 99 writings with a medium category are the work of students with scores between 67-73. Meanwhile, the writing results with a high category are the work of

students with scores between 74-86. The range of values for each category is arranged by considering the assessment criteria for each aspect in the assessment of argumentative writing.

There are seven students who have experienced quite good development. Starting from the initial test, they obtained scores that were categorized as low, until the end of cycle II they obtained scores that were categorized as high. The following is a table of the argumentative writing scores of the seven students.

The development of students' scores is quite significant. Starting from obtaining low category scores during the pretest, to obtaining high category scores in cycle II. The following is a comparison table of students' average argumentative writing scores.

Table 4. Comparison of Pretest (Initial Test), Cycle I, and Cycle II Values

NO	Mark	Σ Student Pretest	Percent (%)	Σ Student Cycle I	Percent (%)	Σ Student Cycle II	Percent (%)
1.	45-66	16	76.19%	5	23.80%	0	0%
2.	67-73	4	19.04%	10	47.61%	9	42.85%
3.	78-46	1	4.76%	6	28.57%	12	57.14%

If observed, students' argumentative writing ability has also increased in frequency. The actions given in each cycle have also been able to improve students' ability in writing arguments. After the implementation of cycle I, there was an increase in scores in all aspects. However, especially the aspects of content organization and language mechanics have not increased significantly. Therefore, the action was continued with cycle II. At the end of cycle II, especially the language mechanics aspect experienced a significant increase. errors in this aspect are very few. This is because this language mechanics aspect is only technical and easier to learn and improve than other aspects that are more related to ideas.

In cycle I, students were not yet careful in paying attention to this aspect so that there were still many errors. Next, the following will show examples of student work during the initial test with low, medium, and high categories and their development in cycle I and cycle II.

It can be concluded that all students experienced an increase in their argumentative writing scores. The following is a presentation of one of the students' works at the low category stage. The following excerpt shows that the writing is not yet good. All aspects of writing construction are still in the low category. Thesis development is very lacking, the ideas expressed are still unclear, sentence construction is confusing, and there are many spelling errors. The writing just flows. There is a main idea or thesis, but it is still complex and unclear. Argumentative sentences have appeared but are still very vague.

After being given action in cycle I, the writing results showed an improvement. The following are the results of students' writing after being given action in cycle I. In the excerpt, there is an improvement compared to the pretest. The content aspect is quite good, the thesis is clearly visible, however, the organization of the content is not very good. The statement of the thesis builder is still not good. The writing mechanics are also not good. There are still many spelling and punctuation errors.

Continuing to cycle II, the writing still experienced improvements in various aspects that had not been achieved well in cycle I. A significant improvement, which occurred in almost all students, was an improvement in the language mechanics aspect. Improvements in the language mechanics aspect include spelling accuracy (capitalization and word spelling) and the accuracy of punctuation.

This section will show the development of students' work, which at the time of the initial test had produced writing in the moderate category. In this discussion, only one of them will be shown as a sample discussion.

It can be seen that the writing produced is quite good. There is a thesis and a statement supporting the thesis, however, the facts provided are still very limited and there are still quite a lot of writing mechanics errors. After being given action in cycle I, there was an improvement. The improvement occurred in the content and organization of the content which became better. The facts presented are enough to strengthen the thesis. From the aspect of linguistic mechanics, it is quite good, but there are still a few errors in spelling and use of punctuation.

Learning to write arguments using the numbered heads together method aims to determine how far students' abilities in writing arguments have improved. Based on information obtained from the initial information questionnaire, the difficulty faced by students in writing arguments is in the process of realizing ideas into writing. In other words, students do not yet know the techniques of writing arguments so they think writing arguments is difficult.

Based on the assessment of the pretest, it was obtained that the results of students' work in writing arguments were still not optimal and still far from expectations. The presentation of content, organization of content, vocabulary, use of language and linguistic mechanics were not good. The idea of the writing was still unclear and not argumentative. There were still many narrative writings.

Through the actions taken in learning to write arguments using the numbered heads together method, the ability to write arguments has been successfully improved. The increase in students' ability in writing arguments can be seen more clearly in the appendix. The increase occurred in cycle I and cycle II.

The first aspect that must be considered in writing arguments is Content. In this case, the Content must be dense with information, substantive, have a complete thesis development, and be relevant to the problem. Learning to write arguments using the numbered heads together model can improve students' ability to present the Content of the writing. The improvement can be seen from the average score from the pre-action stage to cycle II. The average score in the pre-action was 21.44. This average score increased to 22.13 in cycle I or increased by 3.21%. In cycle II, the average score increased to 24.37 or increased by 10.12%.

The content organization aspect is an important aspect in argumentative writing. The quality of the writing will be seen from the organization of the content. The content organization aspect determines whether the development of the writing flow is good or not. Writing that has a very good content organization has the criteria of fluent writing expression, ideas expressed clearly, concisely, neatly arranged, logical sequence, and cohesive. The average score in the pre-action was 19.67. This average score increased to 20.12 in cycle I or increased by 2.28%. In cycle II, the average score of 19.5 increased to 20.62 or increased by 4.94%.

The vocabulary used in writing a composition or essay will determine whether or not the writing is considered good writing. The use of good words will help readers understand the writing as a whole. Especially in argumentative writing that aims to influence the reader's mind. The use of vocabulary is said to be good if its utilization is good, the choice of words and expressions is appropriate, and the formation of the words is correct. The average score of this aspect in the pre-action was 8.67. In cycle I, the average score increased to 9.22 or 6.34%. The average score increased again in cycle II, namely to 11.12 or 20.60%.

The aspect of language use is one aspect that is highly considered in the assessment of argumentative writing. Good language use determines the meaning and whether or not the writing is considered communicative. Language use can be said to be good if the construction is complex but effective, and there are only a few errors in the use of language forms. The average score of this aspect in the pre-action was 13.78. In cycle I, it increased by 14.12 or increased by 2.46%. The average score of the language use aspect increased again in cycle II, which was 16.25 or 15.08%.

The mechanical aspect determines whether the writing is comfortable to read or not. Good writing mechanics describe the writer's ability to master spelling rules. The mechanical aspect can be said to be good if the writing describes mastery of writing rules, and there are only a few spelling errors. The intended linguistic mechanical aspects include the use of spelling, punctuation, and how to write sentences and paragraphs. The average score of the mechanical aspect at 12.5 Pre-action 7.22 points while in cycle I it increased to 8 points, and in cycle II the average score did not increase or remained at 8 points or 10.80%.

As a result, there is an increase in the ability to write arguments both in terms of process and results/products. This can be seen in the increase in the quality of activities carried out by teachers and students and the average value of the results of writing arguments carried out by teachers and students and the average value of the results of writing arguments carried out by students is 77.04. Thus, it is proven that learning to write arguments with the numbered heads together model can improve students' ability to write arguments.

IV. CONCLUSIONS

Based on the research data and discussion in this classroom action research, it can be concluded that the numbered heads together model can improve students' writing skills in learning to write arguments in class X students of SMK Negeri 1 Lolofitu Moi in the 2024-2025 academic year. This can be proven from the success of the learning that has been carried out in this study. Teachers can carry out learning to write arguments using the numbered heads together model well. Students can also enjoy learning to write arguments happily. Meanwhile, in terms of writing results, there has been a significant increase in every aspect. The average result of students' argumentative writing has increased by 32.26%. This increase is calculated from the pre-action to the end of cycle II. During the initial test, the average score obtained by students was 57.33. At the end of cycle I, the average score obtained by students increased to 70.61. Thus, there was an increase of 13.28 points or 23.16%. This value increased again at the end of cycle II, which was 77.04. This means that between cycle I and cycle II there was an increase of 6.43 points or 9.10%.

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