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IMPROVING ELEMENTARY SCHOOL TEACHERS' COMPETENCE THROUGH THE NUMBERED HEAD TOGETHER METHOD AT SD OF TAMBANG SUB-DISTRICTS IN KAMPAR

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ABSTRACT

This paper reports the improvement of teacher competence in a teacher work programme at Sub-Districts Tambang elementary school in Kampar through numbered head together method based on the background of the problem. Hence, the formulation of the problem is "Can the numbered head together method increase elementary school teacher competence at SD Tambang Sub-Districts in Kampar?". The research is a school action research (SAR). The Kemmis and Mc. Taggart's model is a spiral from one to another further cycle. The research subjects were teachers at an elementary school in the Tambang sub-district of Kampar. The number of classroom teachers who were the subjects of the research was 12 school principals who were at SD Tambang sub-districts in Kampar. Based on the results of the analysis and discussion, it can be concluded that the numbered head-together method can improve teacher competence. Through numbered head-together method, teachers' activity becomes more active and teachers tend to be positive to follow the teaching and learning process conducted by the research or in the implementation. In cycle I, it can be seen that the teachers' teaching competence was still relatively good with an average score of 70.29. While the results in cycle II, teachers' teaching competence reached an average score of 79.52, which was classified as very good.

Keywords: teachers' competence, numbered head together method, elementary school teachers

MENINGKATKAN KOMPETENSI MENGAJAR GURU SEKOLAH DASAR DENGAN METODE KEPALA BERNOMOR SAMA DI SD SEKECAMATAN TAMBANG KABUPATEN KAMPAR

ABSTRAK

Artikel ini melaporkan peningkatan kompetensi guru dalam program kerja guru SD sekecamatan Tambang kabupaten kampar dengan metode kepala bernomor sama berdasarkan dari latar belakang masalah. Oleh sebab itu, rumusan masalahnya yaitu "apakah dengan metode kepala bernomor sama dapat meningkatkan kompetensi mengajar guru Sekolah Dasar di SD Sekecamatan Tambang kabupaten kampar?". Penelitian merupakan penelitian tindakan sekolah (PTS). Rancangan penelitian model Kemmis dan Mc. Taggart yaitu spiral dari satu ke siklus berikutnya. Subjek yang diteliti adalah guru di SD sekecamatan Tambang kabupaten kampar. Jumlah guru kelas yang menjadi subjek dalam penelitian berjumlah 12 orang kepala sekolah yang berada di SD sekecamatan Tambang kabupaten kampar. Berdasarkan hasil analisis dan pembahasan dapat disimpulkan bahwa metode kepala bernomor sama dapat meningkatkan kompetensi mengajar guru. Dengan menggunakan metode kepala bernomor sama, aktifitas guru menjadi lebih aktif dan guru cenderung positif dalam mengikuti proses belajar mengajar yang diberikan oleh peneliti maupun dalam melakukan praktek. Pada siklus I, terlihat bahwa kompetensi mengajar guru masih tergolong baik dengan rata-rata 70.29. Sedangkan hasil tes pada Siklus II kompetensi mengajar guru mencapai rata-rata 79.52 yang tergolong sangat baik.

Kata Kunci: kompetensi guru, metode kepala bernomor sama, guru sekolah dasar

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INTRODUCTION

Everyone wants to make changes in his life, these changes can only be achieved only with positive efforts, because the world is growing, such as the industrial revolution which until now has been felt by society with the creation of machines so that humans are increasingly helped to increase work effectiveness, by increasing work effectiveness.



the greater the production output and the level of the economy also increases. Education is aimed at improving the quality of human resources (HR), as formulated in the National Education Goals in the National Education System Law Number 20 of 2003, that National Education functions to develop capabilities and form dignified character and national civilization in order to educate the nation's life, aiming to develop potential students to become human beings who believe and fear God Almighty, have noble character, are healthy, knowledgeable, capable, creative, independent and become citizens who are democratic and responsible (Dahniar, 2018).

To realize these goals the teacher has a very important and very decisive function in the learning process, a professional teacher is required to be able to convey subject matter well, effectively and efficiently so that students as learners understand and understand what is conveyed, teachers are also required to master various learning strategies so that the learning atmosphere in the classroom is more passionate and fun (Mardhiah, Yusrizal & Usman, 2014) . As stated by Kunandar (2007) that in carrying out their duties a teacher must at least have the following abilities and attitudes: first, master the curriculum. The teacher must know the limits of the material that must be presented in teaching and learning activities, both the breadth of material, concepts, and the level of difficulty according to what is outlined in the curriculum. Second, mastering the substance of the material being taught. The teacher is not only required to complete the set subject matter, but the teacher must also master and deeply appreciate all the material being taught. Third, mastering learning methods and evaluation. Fourth, responsibility for the task. *Fifth*, discipline in a broad sense.

Teaching and learning activities involve several components, namely students, teachers, learning objectives, lesson content, teaching methods, media and evaluation. The purpose of learning is a positive change in behavior and behavior of students after participating in teaching and learning activities, such as: psychological changes that will appear in behavior that can be observed through the senses

by other people both in speech, motor skills and lifestyle. Everyone believes that teachers have a very big contribution to the success of learning in schools. The teacher plays a very important role in helping the development of students to realize their life goals optimally. This belief arises because humans are weak creatures, who in their development always need other people, from birth, even when they die. All of this shows that everyone needs other people in their development, this is the case with students, when parents enroll their children in school, at that time they also have hopes for the teacher, so that their children can develop optimally (Rohmah, 2017).

From the results of observations of several teachers, the following symptoms were found: 1) The ability to communicate with students was still low and still relied on their status as teachers, 2) Teachers considered students to be objects that had to be taught every day, 3) Relationships with fellow teachers were still low and tend to be collective only with fellow teachers they know, 4) Lack of teacher ability in peer-to-peer discussion activities in KKG. Based on the phenomena and symptoms mentioned above, it can be seen that the teacher's competence is low in teaching or in delivering learning material. This relates to the learning model applied, so that researchers are interested in using the numbered head learning model.

The structured numbered head learning model is a modification of the Numbered Heads Together technique developed by Spencer Kagan (1992). This structured numbered head learning model facilitates division of tasks. With this learning model students can learn to carry out their personal responsibilities in interrelatedness with their group mates, besides that it can be encouraged to increase their cooperative spirit in learning. Where students are grouped by giving numbers and each number gets a different task then they can join other group members who have the same number to work together (Huda, 2011). In cooperative learning the Structured Numbered Head technique can direct students to be skilled at critical thinking in solving problems and interacting with other students in answering or presenting a question or problem (Lie, 2008).



A good learning process is to enable the main learning objectives to be achieved properly. The success of the teaching and learning process is seen from the ability to solve the problems given and students feel comfortable with the learning that takes place (Choiriatun, 2020). Therefore this study aims to find out in depth through a school action research to improve the teaching competence of elementary school teachers using the numbered head method.

METHOD

This research is a school action research (PTS) conducted in SDs in the Tambang subdistrict, Kampar district . The subjects studied were teachers, while the number of class teachers who were the subjects in this study totaled 12 people. This research was conducted in two cycles. Kemmis and Mc's model research design. Taggart ie spiral from one to another cycle Which Next. Every cycle blanket planning (plan), action (action), observation (observation), and reflection (reflection) (Arikunto, 2016).

1. Planning/preparation

In the planning or preparation stage of this action, the steps taken are as follows: Develop a plan using the numbered heads method, make worksheets and arrange teacher worksheets which contain steps to do assignments in discussion using the numbered head method, prepare a format for observing the learning process which consists of situations of teaching and learning activities, teacher activeness in learning and the teacher's ability to answer and or ask questions, compile a list of questions that will be asked to the teacher after the group discussion activities end, develop observation sheets to measure teacher teaching competence.

2. Action Implementation

Divide the teachers into groups, and each teacher in each group gets a number, giving assignments and each group working on it, instruct each group to discuss the correct answer and ensure that each group member can do it/know the answer, call a number and the number called reports the results of their cooperation, appointed another number after a response from another friend, summing up the lesson.

3. Observation

Observations or observations made in this study were carried out by colleagues who were willing to become observers in this study using the observation format that had been provided. The aspects observed include: Teacher activity in the small circle big circle technique is carried out using the teacher activity observation sheet, teacher teaching competence is carried out using observation sheets.

4. Reflection

After the learning improvement is carried out, the researcher and the observer collaborate and analyze the results of the learning process carried out, so that the successes and weaknesses of the learning that have been carried out are known. The results of the data analysis serve as the basis for the next cycle, so that between cycle I and cycle II there is continuity and it is hoped that the weaknesses in the first cycle can be used as a basis for improvement in the next cycle.

Data collection technique

The data in this study are data about: Data about the application of the numbered heads method, namely data about teacher activities and researcher activities in learning obtained through observation sheets, data on teacher teaching competence in learning obtained through observation sheets. Giving a score for teacher teaching competence for each aspect is given a score range of 0 - 10. So the maximum score for teacher teacher competence is 70.

Discussion Technique

This research is said to be successful if teachers who have good teaching competence in teaching reach 75%. (IGK. Wardani, 2004).

1. The principal's activity as a facilitator

Measurement of teacher activity, because the activity indicator of the principal as a facilitator is 6, namely: Divide the teachers into groups, and each teacher in each group gets a number, giving assignments and each group working on it, instruct each group to discuss the



correct answer and ensure that each group member can do it/know the answer, call a number and the number called reports the results of their cooperation, appointed another number after a response from another friend, summing up the material with measurements of 1 to 5 respectively, the maximum and minimum scores are 30 (6 x 5) and 6 (6 x 1). Determining the 5 classification levels of perfection in using the numbered head method, can be calculated by: Determine the desired number of classifications, namely 4 classifications, namely very perfect, perfect, quite perfect, less perfect, and imperfect (Gimin, et al. 2005). Determine the interval (I), namely: $I = \frac{30 - 6}{5} = 4.8 = 5$ (rounding).

Determine the standard classification table for implementing the Cooperative Learning Model small circle big circle technique, namely:

Table 1. Classification Table For Implementing The Cooperative Learning Mod	aplementing The Cooperative Learning Model
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Clasification	Range
Very perfect	26 - 30
Perfect	21 - 25
Perfect enough	16 - 20
Less than perfect	11-15
Not perfect	6 – 10

2. Teacher activity

Teacher activity observed in the implementation of this learning there are 6 aspects, namely: The teacher forms groups quickly and correctly, the teacher does the task with the group, the teacher discusses the answers to the assignments given, the teacher reports the results of the group's collaboration, some of the teachers gave responses from other friends on their group reports, the teacher concludes the material.

The measurement of this "teacher activity" instrument is "done = 1", not done = 0".

So if all teachers do as expected in all components, then the maximum score is 72 (6 x 12). Determining 4 activity classifications using the numbered head method, can be calculated by:

- a. Determine the desired number of classifications, namely 4 classifications, namely very high, high, low, and very low.
- b. interval (I), namely: $I = Max \text{ score} Min \\ \underline{\text{score}} = \frac{72 0}{4} = 18 \qquad 4 \qquad 4$
- c. Determine the standard classification table for the implementation of the small circle big circle technique, that is:

Clasification	Range
Very high	55 - 72
High	37 – 54
Low	19 - 36
Very low	0 - 18



Detailed teacher teaching competency categories can be seen in the following table 3. In determining the assessment criteria regarding teacher competence in teaching, grouping of 4 assessment criteria is carried out, namely very good, good, medium and low, this refers to the opinion of Suharsimi Arikunto, (1998). The percentage criteria are as follows:

Table 3. The Percentage Criteria						
Criteria	Percentage					
very good	76% - 100%					
good	56% - 75%					
good enough	40% - 55%					
Not good	less than 40%					

RESULTS AND DISCUSSION

1. First Cycle

a. Planning

Before carrying out the action with the numbered heads method, the teacher first prepares several preparatory steps, namely preparing an implementation plan based on the steps of the numbered heads method . The activity process begins with introducing the learning objectives and learning stages that must be carried out by the teacher. After the preliminary activities are carried out, then the next process is to divide the teachers into several groups, and each group gets a number. After getting a number, they were given a task and each group worked on it. The next process is to instruct each group to discuss the correct answer and ensure that each group member can do it/know the answer. Then call one of the numbers and the number called reports the results of their collaboration. The next learning activity using the numbered head method is to designate another number after receiving responses from other friends. And in the closing stage of learning in this session is to conclude the lesson.

b. Action

When carrying out actions using the numbered head method, not all actions or activities can be carried out as planned. One of these problems is because they are not used to discussing answers to the questions that are the subject of discussion, or maybe when distributing numbers. Besides that, they tend to only listen to information. The next task is to increase the enthusiasm of the teachers to participate more actively in the next activity.

As the main purpose of this method is to encourage teachers both in the KKG and when they are in the workforce, namely increasing their cooperative spirit to teach better. In order to engage in activities using the numbered head method, the researcher is even more active in encouraging teachers to be more enthusiastic and trying to generate self-confidence so that they participate in finding important parts of the material and are finally able to draw conclusions about the material using their own language.

c. Observation

The results of research observations on the activities of researchers who at that time gave directions will be described in table 1 below.

N			Μ				
0	OBSERVED ACTIVITIES	5	4	3	2	1	AR K
1	Divide the teachers into groups, and each teacher in each group gets a number	5					5

Table 4. Researcher Activities in Cycle I



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 Giving assignments and each group working on it Instruct each group to discuss the correct answer and ensure that each group member can do it/know the answer. Call a number and the number called reports the results of their cooperation. Appointed another number after a response from another friend. Summing up the material AMOUNT 				25
 Giving assignments and each group working on it Instruct each group to discuss the correct answer and ensure that each group member can do it/know the answer. Call a number and the number called reports the results of their cooperation. Appointed another number after a response from another friend. Summing up the material Giving assignments and each group 5 Giving assignments and each group 5 Summing up the material Giving assignments and each group 5 Giving assignments and each group member 4 Giving assignments and the number after a response 4 Giving assignments and the material 4 	~		-	25
2Giving assignments and each group working on it553Instruct each group to discuss the correct answer and ensure that each group member can do it/know the answer.444Call a number and the number called reports the results of their cooperation. Appointed another number after a response from another friend.33	6	Summing up the material	4	4
 Giving assignments and each group 5 Giving assignments and each group 5 Instruct each group to discuss the correct answer and ensure that each group member 4 Instruct each group to discuss the correct 4 Call a number and the number called 4 Call a number and their cooperation. 	J	from another friend.	3	3
 Giving assignments and each group 5 Giving assignments and each group 5 Instruct each group to discuss the correct answer and ensure that each group member 4 Gall a number and the number called 	+	reports the results of their cooperation.	4	4
2 Giving assignments and each group 5 5 Working on it 5 Instruct each group to discuss the correct answer and ensure that each group member 4 4	1	Call a number and the number called		
2 Giving assignments and each group 5 5	5	Instruct each group to discuss the correct answer and ensure that each group member can do it/know the answer.	4	4
	2	Giving assignments and each group working on it	5	5

Source: Observation Data, 2022

From table 1 above it is known that the score obtained by the researcher in the implementation of learning with the numbered head method after being compared with the standard classification that has been set in the research method. Research activities in cycle I are in the "perfect" classification because a score of 25 is in the interval 21 - 25. From the information above it can be concluded that in the early stages of this action, research activities have several

limitations which will be the focus of attention for improvement in the next cycle, among others, is the aspect of assigning another number after receiving feedback from other friends.

In the next stage, based on observations about the level of teacher activity in cycle 1, a score of 59 was obtained (in the very high range). Clearly the level of teacher activity can be seen in the following table:

NO	Sampla Codo	_	Amount					
NU	Sample Code	1	2	3	4	5	6	Amount
1	SDN 001 BALAMJAYA	1	0	1	0	0	1	3
2	SDN 002 KUAPAN	1	1	1	1	1	1	6
3	SDN 004 KUAPAN	1	1	1	1	1	1	6
4	SDN 008 KUALU	1	1	1	1	1	1	6
5	SDN 014 EXTENDED	1	1	1	1	1	1	6
6	SDN 016 KEMANGINOAH	1	1	1	1	1	1	6
7	SDN 023 KUALU NENS	1	1	1	1	1	1	6
8	SDN 032 KUALU	1	1	1	1	1	1	6
9	SDN 034 TARAIBANGUN	1	1	1	0	0	0	3
10	SDN 035 TARAIBANGUN	1	1	0	1	1	1	5
11	SDN 037 MUSHROOMS	1	0	1	0	0	0	2
12	SDIT BAITUL ILMI	0	1	1	1	1	0	4
		11	10	11	9	9	9	59
		91.67	83.33	91.67	75.00	75.00	75.00	82

Table 5. Teacher Activities in Cycle I

Source: Observation data, 2022

Description of teacher activity: Teachers form groups quickly and correctly, in this aspect the teacher gets a percentage of 91.67%. The teacher does the task with the group, in this aspect the percentage is 83.33%. The teacher discusses the answers to the assignments given, in this aspect the percentage is 91.67%. The teacher reports the results of his group collaboration, in



this aspect obtaining a percentage of 7%. Some of the teachers gave responses from other friends on their group reports, in this aspect the percentage was 75%. The teacher concludes the material 75%.

Based on table 2, it is known that the classical teacher activity score is classified as "very high", because 59 is in the 55-72 interval.

Based on the results of observations on the level of teacher teaching competence, in cycle I it was seen that the teacher's teaching competence was still quite good with an average percentage of 70.29. For more details can be seen in the following table:

INDICATOR										
NO	Sample Code	Mastering materials	Manage study programs	Manage classes	Mastering the media or learning resources	Manage learning interactions	Assess student achievement	Get to know the function and counseling program	Mark	
1	SDN 001 BALAMJAYA	7	7	8	8	7	8	6	51	
2	SDN 002 KUAPAN	6	6	7	7	6	7	7	46	
3	SDN 004 KUAPAN	6	8	8	6	7	8	8	51	
4	SDN 008 KUALU	6	8	7	6	6	7	6	46	
5	SDN 014 TERANTANG	7	7	8	8	6	8	7	51	
6	SON 01 KEMANGINOAH	7	6	6	7	7	7	7	47	
7	SDN 023 KUALU NENAS	6	7	6	8	8	8	7	50	
8	SDN 032 KUALU	7	8	7	8	7	6	7	50	
9	SDN 034 TARAIBANGUN	6	8	8	6	8	8	8	52	
10	SON 035 TARAIBANGUN	8	6	8	6	7	6	7	48	
11	SDN 037 MUSHROOMS	7	6	7	6	6	7	7	46	
12	SDIT BAITUL ILMI	6	6	7	6	6	6	6	43	
	Amount	79	83	87	82	81	86	83	581	
	Percentage	65,8	69,2	72.5	<i>68.3</i>	67.5	71.7	69,2	69,2	

Table 6. Teacher teaching competence in Cycle I

Based on table 3 above, it can be seen that the teacher's teaching competence after the numbered head method get a score of 581 with a percentage of 69.2%.

d. Reflection (*reflection*)

The results of data analysis for each step of implementing the action are described by the author at this stage. Then discussed with the observer. Judging from the learning implementation plan, it seems that it is in accordance with the implementation of actions to improve teacher teaching competence, the average score of cycle I teachers is 69.2. The success of the teacher in cycle I had not been achieved, because the research determined that the indicators in determining the increase in teaching competence were 75 for each teacher. Meanwhile, the classical indicator is that 75% of teachers get very good marks, then they are considered successful. This means that each teacher is said to be successful if he gets a score of 75.

2. Cycle II

Cycle II was carried out based on the lesson plan and was a reflection of the first cycle. In its implementation, the focus of improvement is the weaknesses found in cycle I and maintaining the acquisition of existing scores. The



learning process begins with apperception, asking and answering questions about students' and experiences knowledge and making connections between previous lessons and the lessons to be learned. Then link the knowledge that students have with the subject matter to be discussed. Furthermore, by motivating students to be enthusiastic in participating by giving praise to students who can answer questions correctly from the last lesson. After the initial activities with various activities carried out and continued with the core activities as in cycle I, as a closing school activities as a facilitator together with the teacher to conclude the lesson.

a. Plan

The implementation time of the second cycle takes place within one week after the completion of the first cycle. The stages in cycle II learning are as follows: Prepare facilities and supporting facilities needed during the implementation of teaching, prepare examples of commands or orders to carry out actions clearly, prepare observation materials and prepare all the necessary tools. develop scenarios for implementing actions.

b. Action

Actions taken by researchers when carrying out teaching and learning activities before taking action are usually by using methods that are commonly used without trying out certain learning strategies. The actions taken were not entirely successful. In this activity the researcher presents the lesson outline and provides important topics in the subject matter, dividing half of the class (or a quarter if there are too many teachers) standing in a small circle. They stand in a circle and face outward, dividing the other half of the class to form a circle outside the first circle. In other words, they stand facing inward and pair up with the teacher in the inner circle. Then ask two teachers in pairs from the small circle and the big circle to share information. the teacher who is in the small circle who starts. This information exchange can be done by all partners at the same time. ask the teacher in the small circle to stay in place, while the teacher in the big circle shifts one or two steps clockwise. This way, each teacher gets a new partner to share. ask the turn of the teacher who is in the big circle to share information. so on.

c. Observation _ _

As in the first cycle, observations are based on two things, namely; 1) The results of direct observations made by researchers to determine the activities of researchers in the numbered head method and activities during learning, and 2) the teaching competence of teachers in the learning process. Observations were obtained from two meetings. The results of observations in cycle II showed an increase in both researcher activity and teacher activity as well as teacher teaching competence in the learning process. As for the activities of researchers in the numbered head method, if in cycle I the researcher has done it "perfectly enough". This is in accordance with the results of observations where the activity of researchers obtained a score of 19. The results of observations of research activities in cycle II showed an increase with a score of 24 with perfect criteria. Perfection of researcher activity in numbered head method in cycle II can be seen in the observation table of researcher activity below.

NO	Sample Code		Teacher activity					
110		1	2	3	4	5	6	- Amount
1	SDN 001 BALAMJAYA	1	1	1	1	1	1	6
2	SDN 002 KUAPAN	1	1	1	1	1	1	6
3	SDN 004 KUAPAN	0	1	0	1	1	1	4
4	SDN 008 KUALU	1	1	1	1	0	1	5
5	SDN 014 EXTENDED	0	0	1	1	1	1	4
6	SON 016	1	1	1	0	1	0	4

Table 7. Teacher Activities in Cycle II



	KEMANGINOAH								
7	SDN 023 KUALU	1	1	1	1	1	1	6	
	NENS	1	1	1	1	1	1	0	
8	SDN 032 KUALU	1	1	1	0	1	1	5	
9	SDN 034	1	1	1	1	1	1	6	
	TARAIBANGUN	1	1	1	1	1	1	0	
10	SON 035	0	1	1	0	1	1	4	
	TARAIBANGUN	0	1	1	0	1	1	4	
11	SDN 037	1	1	1	1	1	1	6	
	MUSHROOMS	1	1	1	1	1	1	0	
12	SDIT BAITUL ILMI	1	1	1	0	1	0	4	
	JUMLAH	9	11	11	8	11	10	60	
	PERCENTAGE (%)	75.00	91.67	91.67	66,67	91.67	83,33	83	

Description of teacher activity:

Based on table 7, it is known that the teacher's activity score classically or as a whole is classified as "Very High", because it is 60. To be clearer, it will be broken down as follows: The teacher forms groups quickly and correctly, obtaining a percentage of 75%, teachers work on assignments with their groups, obtaining a percentage of 91.67%, the teacher discusses the answers to the assignments given, obtaining a percentage of 91.67%, teachers report the results of their group collaboration, obtaining a percentage of 66.67%, some teachers gave

responses from other friends on their group reports, obtaining a percentage of 91.67%, the teacher concludes the material, obtaining a percentage of 83.33%

Based on the results of research on the level of teaching competence of teachers, in the first cycle it can be seen that the teaching competence of teachers is still moderate with an average of 69.2%. Meanwhile, the test results in Cycle II of teacher teaching competence reached an average of 79.52%. To find out more clearly about increasing teacher teaching competence in cycle II, it can be seen in the table below:

		INDICATOR							
NO	Sample Code	Master the materials	Manage study programs	Manage classes	Mastering the media or learning resources	Manage learning interactions	Assess student achievement	Get to know the function and counseling program	MARK
1	SDN 001 BALAMIANA	8	8	9	9	8	9	7	58
2	SDN 002 KUAPAN	7	7	8	8	7	8	8	53
3	SDN 004 KUAPAN	7	8	8	7	8	8	9	55
4	SDN 008 KUALU	7	8	8	7	7	8	7	52
5	SDN 014 EXTENDED	8	8	9	8	7	9	8	57
6	SON 016 KEMANGINOAH	8	8	8	8	8	8	8	56
7	SDN 023 KUALU NENS	7	8	8	9	8	9	8	57
8	SDN 032 KUALU	8	8	8	8	8	8	8	56
9	SDN 034 TARAIBANGUN	7	8	8	8	9	8	9	57
10	SON 035 TARAIBANGUN	9	8	8	8	8	8	8	57
11	SDN 037	8	8	8	8	8	8	8	56

Table 8. Teacher's teaching competence in Cycle II



12	MUSHROOMS SDIT BAITUL ILMI	7	8	8	8	8	8	7	54
	Amount	91	95	98	96	94	99	95	668
	Percentage	75.8	79 2	81 7	80 0	78 3	82 5	79 2	79 52

Based on table 8. 12, it can be seen that the teacher's teaching competence after applying the numbered head method is in a very good classification, with a percentage increase of 79.52%.

d. Reflection

Based on the data obtained the evaluation value of the teacher's teaching competence through the numbered head method it can be concluded that each individual has achieved a score in the good category, meaning that out of 12 principals, the average score is 79.52. Therefore the authors conclude that there is no need to do the next cycle. Teacher activity is included in the good category, it can be seen that the acquisition of teacher activity scores with 6 aspects is used as an assessment. On average, all aspects of teacher activity score 60 in the very high category. The activity of researchers has also increased, in which the 6 aspects put forward can be carried out.

Acquisition of the value of research activity with 6 aspects which is used as an average assessment of all aspects of research activity is in the fairly perfect category with a score of 29 and is classified as very perfect. Recapitulation of the comparison of cycle I and Cycle II through the numbered head method to the teacher can be seen in table 9 below.

NO	Sample Code	CYCLE			
110	Sample Code	CYCLE I	CYCLE II		
1	SDN 001 BALAMJAYA	51	58		
2	SDN 002 KUAPAN	46	53		
3	SDN 004 KUAPAN	51	55		
4	SDN 008 KUALU	46	52		
5	SDN 014 EXTENDED	51	57		
6	SON 016 KEMANGINOAH	47	56		
7	SDN 023 KUALU NENS	50	57		
8	SDN 032 KUALU	50	56		
9	SDN 034 TARAIBANGUN	52	57		
10	SON 035 TARAIBANGUN	48	57		
11	SDN 037 MUSHROOMS	46	56		
12	SDIT BAITUL ILMI	43	54		
	Amount	1476	954		
	Percentages	70.52	79.52		

 Table 9. Teaching Competency Improvement Data in Cycles I and II

If you pay attention to the results of the second cycle, the teaching competence shown by the teacher has increased compared to the first cycle. This means that the actions given by the researcher in the second cycle had a better impact than the actions in the first cycle. This illustrates that to be able to help teachers practice their own ability to find the contents of a material, teachers need time slowly. At first the teacher needs to be guided intensively, but gradually given the opportunity to be able to improve the teacher's



teaching competence with the supervision of researchers.

From the research results in the first cycle, it shows that teaching competence has not reached the set indicators. This indicates that the learning process carried out by researchers still needs better planning by taking into account the weaknesses and strengths that have been identified in cycle I as the basis for improvement in cycle II. Weaknesses of the numbered head method to increase competency after being corrected in cycle II and reaching a very perfect level. Through process improvement numbered head method in the second cycle, the teacher's teaching competence achieved individual and group mastery with an average score of 79.52.

Table 10. Data Comparison of Teaching Competency Improvement Data Cycles I and II

NO	CYCLE	MARK	
1	PRE CYCLE	61,52	
2	CYCLE I	70,29	
3	CYCLE II	79.52	

The increase in teaching competence in cycle II compared to cycle I shows that the improvements in learning delivered can solve the problems encountered. That is, lesson plans are made according to the problem of low teacher teaching competence that has occurred in the classroom so far. Furthermore, there was an increase in teacher teaching competence from before to cycle I and to cycle II indicating that the numbered head method was to improve teaching competence .

Teacher personality characteristics include, cognitive flexibility, and openness psychologically, teachers are expected to be able to compete and work professionally (Zahroh, 2015). The ability of a teacher to understand the competencies possessed greatly determines the success of his students, because students will develop if the teacher is able to develop himself (Aqil et al., 2020). The teacher's task in learning is to make students learn through creating interesting and meaningful learning strategies and environments. Learning can be said to be successful if students can receive and master the material well (Sulfemi, & Minati, 2018). Teacher professionalism has been widely observed as one of the main issues in education (Jina, 2020), because one of the components that determines student learning outcomes is the teacher (Komariyah, & Wahyudi, 2018).

Teacher competence as a learning agent includes a) pedagogic competence, b) personality competence, c) social competence, and d)

professional competence (Nurmaini, Djasmi & Suntoro, 2015). The role of a teacher is very large in the process of improving the quality of education in general and improving the quality of a school in particular. To be able to create qualified teachers, it is necessary to have a standard or often referred to as teacher qualifications that must be met. Having teachers who meet these qualifications will create quality schools and quality education in accordance with national education goals (Asmiyati, 2018; Sudana, 2018). If the teacher succeeds in improving the learning atmosphere that causes students to be active in learning, it allows for an increase in student learning outcomes in accordance with predetermined learning objectives (Kurniasih, Imas, & Sani, 2014). Because learning is a process of changing behavior thanks to experience and training. This means that the purpose of learning activities is a change in behavior, both concerning knowledge, skills, attitudes and even covering all other personal aspects (Ngongo & Gafur, 2017).

Teachers are also required to master various learning models so that the learning atmosphere in class is more passionate and fun (Mulloh, & Muslim, 2022). The teacher's ability to develop the learning material being taught is also adjusted to how the teacher uses the method in learning so that students are interested and active in the learning process. The right method makes students feel interested in what is learned. Students are more enthusiastic about learning



when teachers can provide learning using methods that are easily accepted (Supraptono, 2015). In addition, teachers are also required to be innovative, pro-active, and able to make students active in learning (Baroroh, & Muyasaroh, 2020). Learning can be said to be successful if students can receive and master the material well (Sulfemi, & Minati, 2018).

The form of teacher professionalism must be shown when the learning process takes place (Rusyan, 2016). The numbered head method is a learning model that can increase teacher competence. The steps of this learning model are for the teacher to form groups in the class according to the number of topics studied (Maisarah, 2015). The discipline factor is also very important in order to improve teacher competency (Elly, 2016). In this case also seen from student learning outcomes, teachers must also have the ability to evaluate how student learning outcomes are achieved. Activities evaluating student learning outcomes will provide feedback in considering the effectiveness and efficiency of the learning process carried out (Ananda, 2017). If this is related to the teacher's creativity, then the teacher concerned may create a teaching strategy that is completely new and original (originally his own creation), or it may be a modification of various existing learning strategies so as to produce a new form (Mulloh, & Muslim, 2022).

CONCLUSIONS AND RECOMMENDATION

Based on the results of the analysis and discussion it can be concluded that the numbered head method to improve teacher teaching competence. This success is due to the numbered head method activities become more active, which means that teachers tend to be positive in participating in the teaching and learning process provided by researchers and in conducting practice, under these conditions the level of teacher acceptance will increase. Based on the results of research on the level of teacher teaching competence, in cycle I it was seen that teacher teaching competence was still relatively good with an average of 70.29. While the test results in Cycle II of teacher teaching competence reached an average of 79.52 which was classified as very good.

It is better if the implementation of the numbered head method goes well, so the principal should apply it more often, researchers need to routinely explain to teachers the importance of sharing, especially in groups. Recommended for future researchers to conduct research with the same variables in order to find out the increase in teacher competence in other schools.

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