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# LEARNING MOTIVATION AND MATHEMATICAL UNDERSTANDING OF STUDENTS OF ISLAMIC JUNIOR HIGH SCHOOL THROUGH ACTIVE KNOWLEDGE SHARING STRATEGY

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## ABSTRACT

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This study aims to analyze and describe learning motivation, mathematical understanding and activities of students' and teachers at Islamic Junior High School (Madrasah Tsanawiyah/MTs) through Active Knowledge Sharing strategy. The research is conducted in MTs. Al-Mukhlisin Bandung Indonesia. The method of this research is a mixed method with Classroom Action Research (CAR). The instruments used were motivation questionnaires, observation sheets, mathematical understanding tests and observation sheets. The results of the research indicate that learning motivation, mathematical understanding and activities of teachers and students through the Active Knowledge Sharing strategy increase in each cycle. Students' learning motivation is shown from the result of the questionnaire, states that the average percentage of motivation indicator increase in each cycle, those are 70,35% (cycle I), 71,17% (cycle II ) and 72.15% (cycles III), student mathematical understanding indicated from the test results states that the average value increases in each cycle and the end of the cycle has reached the classical completeness, that is 79.41%, the activities of students and teachers during teaching- learning increased in each cycle of 60.95% (cycle I), 73.33% (cycle II) and 86.67% (cycles III).

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### **1. INTRODUCTION**

The existence of Islamic education in Indonesia is instrumental for shaping the character of students. Islamic values applied in the institution are expected to shape the character of students which are moral, high spirits, respect for spiritual values and humanity, teaches attitude and honest behavior, and simple life. The development of education in Indonesia is marked by the emergence of various forms of various institutions,

such as boarding schools, *madrasah*, *surau*, and *meunasah* (Akhiruddin, 2015). *Madrasah* is one form of Islamic education in Indonesia, initially only teach a variety of religious knowledge, train experience in Islamic teachings, including worship practices, *muamalah* and morals (Nurhasnawati, 2015). *Madrasah* is a container or place of learning Islamic knowledge and other skills that developed in his time. Thus it can be concluded that the term *madrasah* comes from Islam itself (Akhiruddin, 2015).

The word "madrasah" comes from Arabic meaning 'place of learning' equated with the word 'school'. However, within the framework of the national education system they are different. The school is known as a primary and secondary educational institution whose curriculum focuses on general subjects, and its management is under the auspices of the Ministry of National Education. While madrasah are known as basic and intermediate religious education institutions which, therefore, focus more on religious subjects, and their management is the responsibility of the Ministry of Religious Affairs (Kosim, 2007). In 1994, a typical Islamic madrasah concept was formed with 70% curriculum content of general knowledge and 30% religious knowledge. That is, this curriculum modification equates the substance and content of the madrasah curriculum with public schools according to the National Education System (Nurhasnawati, 2015). For example, for Islamic Junior High School (MTs) curriculum is the same as the junior high school curriculum, only MTs has more portion of Islamic education. such as: Quran and Hadith, Aqidah Akhlak, Fiqh, History of Islamic Culture, and Arabic. The combination of common and religious subjects into a single curriculum under the auspices of the Ministry of Religious Affairs.

However, the impact of the curriculum content composition is the increasing burden on the madrasah. On the one hand, it has to improve the quality of education generally in accordance to the standards applicable in schools. On the other hand, however, the madrasah, as an Islamic educational institution, must keep the quality of religious education well. Their burdens to receive so many lessons has an impact on learning motivation and the ability to understand common subjects, especially subjects that are students have difficulty in mathematics. Based on the results of preliminary studies conducted by researchers on students of Islamic Junior High School Al Mukhlisin Bandung Indonesia, when learning activities of mathematics, students are less passionate in learning, students tend to be passive in doing tasks given by teachers, students do not timely in collecting tasks. There are even some students who do not work at all with difficulties solve the problem. Teachers have tried to provide various motivations in the learning process, such as giving comments on each students' answers, giving quizzes with additional value bonus, giving praise to the students who got good grades, giving some gift to the students who scored high on every daily test. But the motivation of students to actively learn math remains low and attitude. Attitude towards mathematics is factors that influence learning achievementmathematics (Rusnilawati, 2016).

Such low motivation has an impact on understanding the concept of mathematics. This is obtained based on the results of student work in completing the mathematics that the researchers gave during the preliminary study. Some problems that require understanding of mathematical concepts have not been optimally mastered by students, such as the weak understanding of one concept with other concepts needed to solve of mathematical problems. Learning motivation is very important as a determinant of the success of student learning outcomes. Learning outcomes will be optimal if there is motivation. The higher the motivation the better the learning outcomes. So motivation will always determine the intensity of the learning effort for the students. Learning motivation is defined as the impulse arising from within due to the influence of within itself or outside influences that aims to achieve learning success. Through the motivation found in students,

something new can be learned. In this case, it is needed teachers'effort to generate students' motivation to strengthen the response that has been learned.

Teachers should be able to innovate learning and motivate students to learn more actively, creatively and systematically to find mathematical knowledge independently. Students' creative thinking ability cannot develop well if the teacher doesn't involve the students actively in learning process (Sugilar, 2013). Learning strategy is needed to overcome it, that can encourage students to be more active. Active learning is one of the alternatives that can be applied by engaging intellectual and emotional students so that they play an active role and participate in learning activities. Students are expected also to make improvement of their performance in learning through positive behavior as part of the soft skills (Rosyana, Afrilianto, & Senjayawati, 2018). Learning process is not on the delivery of information (students as listeners) but the development of higher-order thinking such as analysis, synthesis and evaluation, 2) emphasis on values and attitudes related to the material, 3) students are actively involved in reading, writing and discussion (Bonwell & Eison, 1991).

Active Knowledge Sharing is a strategy requires students to be ready to learn quickly so that his or her ability in team work can be observed (Zaini, 2007). Siberman (2007) suggests some things to be careful of when teachers will initially apply learning using the active knowledge sharing strategy to achieve the objectives of: 1) establishing a discussion team so students know each other and create a spirit of cooperation, 2) assess attitudes, motivation, knowledge and student experience, 3) motivate students' interest at the beginning of the lesson. The learning that uses active knowledge sharing strategy in this research consists of several stages, namely the stage of questioning, discussion, knowledge sharing and discussion. The role of teachers in learning as a motivator and facilitator who can invite students to construct their own knowledge and find their own way of learning. The purpose of this research is to know the students' learning motivation, mathematical understanding and student and teacher activity through active knowledge sharing strategy.

### 2. METHOD

This type of research is a mixed-method with classroom action research (CAR), a method that focuses on collecting, analyzing, and mixing quantitative and qualitative data in one study or series of studies (Indrawan & Yaniawati, 2014). This research is conducted at MTs.Al-Mukhlisin Bandung, Indonesia to the eighth grade students. Activity of CAR by implementing Active Knowledge Sharing follow the main component in action research as follows: 1) planning, 2) acting, and observing and 3) reflection is done in three cycles which each cycle consist of three meeting. The instruments used are mathematical understanding test, learning motivation questionnaire, student and teacher activity observation sheets in Active Knowledge Sharing learning and interview guide. The data to be obtained in this study consists of quantitative data and qualitative data.

Quantitative data obtained through mathematical understanding test, filling questionnaire student learning motivation, observation sheet while qualitative data obtained through interview. In the questionnaire of learning motivation, students are asked to fill out by choosing answers in the form of: SS (strongly agree), S (agree), TS (disagree), N (neutral), and STS (strongly disagree) towards learning with active knowledge sharing strategy.

## 3. RESULTS AND DISCUSSION

## 3.1. Results

## 3.1.1. Description of Student Learning Motivation

Data of students' learning motivation in teaching-learning mathematics through Active Knowledge Sharing strategy, obtained from the motivation questionnaire given to students'at each end of the cycle. This motivation questionnaire uses a Likert scale. There are 8 indicators of learning motivation: 1). Duration of learning activities, 2) frequency of learning activities, 3) persistence in learning, 4) Firmness, tenacity and ability to face obstacles and difficulty in achieving goals, Firmness, tenacity and ability to face obstacles and difficulties in achieving goals, 5) Level of students' aspiration in learning , 6) Loyalty and sacrifice for achievement, 7) the level of qualification and learning achievement, and 8) the direction of students' attitudes in learning (Syamsudin, 2003). The result of questionnaire analysis of students' learning motivation can be seen in Table 1.

No	Indiastan Descripton		Percentage (%) in :			
INO	Indicator	Descriptor	Cycle I	Cycle II	Cycle III	
1.	Duration of learning activities	a. Duration of use of study time	78.50	78.25	80.50	
		b. The duration of concentration at the time of study	75.33	76.00	77.33	
2.	Frequency of learning activities	a. Frequently reading textbooks	67.67	70.67	71.33	
		b. Often do learn	65.00	66.50	67.00	
3.	Persistence in learning	a. Provision in achieving goals	71.33	74.67	71.67	
		b. Stickiness in achieving learning goals	68.33	69.33	68.00	
4.	Firmness, tenacity and ability to face	a. Steady in the face of obstacles	65.50	65.75	67.00	
	obstacles and difficulty in achieving goals,	b. Tenacious in achieving goals	65.00	66.50	70.00	
5.	Level of students' aspiration in learning	a. Have high ideals	80.50	82.00	84.00	

**Table 1**. Analysis Results of Students' Learning Motivation at Any Cycle

Based on Table 1, students' learning motivation in each cycle is mostly in the high category, that is, the average of the percentage of cycle I is 70.35% cycles II (71.17%) and cycles III (72.15%).

### 3.1.2. Description of Students' Mathematical Understanding on every Cycle

Based on the results of research in cycle I, cycles II and cycle III, each cycle consists of 3 meetings. Any average grade that a students' has achieved in each cycle is compared with the Minimum Completeness Criteria (MCC). Students' have understood the

concept of mathematics when it reaches MCC. Each school has defined a MCC for each subject adjusted to the students' average ability level, indicator and condition of the education unit (Depdiknas, 2008). In MTs.Al-Mukhlisin Bandung Indonesia which is the location of research, MCC for mathematics subject is 75. So students' are said to be solved individually if it has reached the value of  $\geq$  75. The description of students' mathematical understanding in each cycle is presented in Table 2.

No	Learning Activity	Avarage	MCC	Number of completed students'	Percentage of Classical completed	Category
1.	Cyrcle initial Test	14.95	75	-	0%	Not completed
	(Pretest)					
2.	Cycle I	61.29	75	9	26.47%	Not completed
3.	Cycle II	66.06	75	14	41.17%	Not completed
4.	Cycle III	70.21	75	18	52.94%	Not completed
5.	Cycle end test	78.67	75	27	79.41%	Completed
	(Postest)					

**Table 2.** Average of Students' Mathematical Understanding of Every Cycle

Based on the results listed in Table 2, it can be seen that the average score of students' at the end of the third cycle has not reached the MCC, but after being given a final test (postest) the average score is above the MCC value and has reached completeness in a classical manner, average and number of students' who have achieved learning mastery.

# **3.1.3.** Description of Students' and Teacher Activity through Active Knowledge Sharing Strategy

Observational data during learning activities were obtained from observation sheets observed by observers. Observations of students' and teacher activity in each cycle are presented in Table 3 and Table 4.

		Ac	Achievement (%) in			
No	Students' Activity Observed	Cycle I	Cycle II	Cycle III		
1	Students' ask the questions about course material	53.33	80,00	86,67		
	when discussing the results of the discussion					
2	Students' work on the worksheets given by teachers	80.00	93,33	93,33		
3	Students' make the conclusions on the subject matter	66.67	80,00	80,00		
	at the end of the lesson					
4	Students' express their opinions when discussing the	53.33	73,33	80,00		
	results of the discussion					
5	Students' give advice when discussing the results of	46.67	60,00	73,33		
	the discussion					
6	Students' respond to questions when discussing the	53.33	73,33	86,67		
	results of the discussion					
7	Students' prepare to learn by making assigned home	73.33	80,00	80,00		
	tasks					
	Average	60.95	73,33	86,67		
	Average Overall = 73.65					

**Table 3.** Students' Activity Observation Results on Each Cycle

Based on Table 3, there is an increase in the percentage of students' activity in each cycle, and the average students' activity throughout the cycle is 73.65% (good). This shows that Active Knowledge Sharing strategy is effectively applied in mathematics learning. Furthermore, observation result of teacher activity in each cycle presented in Table 4.

	A ativa Knowladga		Achievement (%) in			
No	Sharing Stages	<b>Students' Activity Observed</b>	Cycle	Cycle	Cycle	
	Sharing Stages		Ι	II	III	
1.	Questioning Stages	Begin the lesson by giving positive suggestions to condition the students'	80.00	80.00	80.00	
		Revisiting the previous material and giving the students' an opportunity to ask and respond	86.66	86.66	93.33	
		Guiding students' in filling Students' Worksheets (SW)	86.66	86.66	80.00	
2.	Group discussion Stages	Guiding students' on group activities	80.00	86.66	80.00	
	Stuges	Directs students' to find various	80.00	80.00	80.00	
		information that can support problem solving				
3.	KnowledgeSharing	Observe and direct students' work	80.00	80.00	80.00	
	Stages	Guiding students' to communicate the results of the discussion	80.00	80.00	80.00	
		Control the course of group presentations	80.00	80.00	86.66	
4.	Disscussion Stages	Guiding students' to conclude material at the end of learning	80.00	80.00	80.00	
	Average		81.48	82.22	82.22	
	Average Overall = 81	.97				

Table 4. Teachers'	Activity	Observation	Results	on Each	Cycle
	2				~

The result of observation showed that all of teachers' activity on observation sheet majority in good category, and the average activity on whole cycle equal to 81.97% (good). This shows that teachers can implement Active Knowledge Sharing strategies well.

### 3.1.4. Reflection on Every Cycle

In each cycle of teachers and observers analyze learning outcomes that have been implemented. Various obstacles are found when teachers apply the Active Knowledge Sharing strategy. Details of learning reflections on each cycle are presented in Table 5, Table 6 and Table 7.

Active Knowledge Sharing Stages	Obstacles	Suggested Remedies
Questioning Stages	Students' are still confused with Active Knowledge Sharing learning strategy	The description of the Active Knowledge Sharing strategy steps needs to be clarified
Group discussion Stages	Students' are still not active in asking questions during the discussion	1. Teachers need to guide and direct the students' during the discussion
Knowledge Sharing Stages	Students' are not yet optimal in sharing knowledge	2. Teachers need to explain the difference between the diagonal
Disscussion Stages	Some students' have not been able to distinguish mathematical concepts such as differences between the diagonal plane and the diagonal of space	plane and the diagonal of space

# Table 5. Learning Reflectionsons On Cycle I

# Table 6. Learning Reflections On Cycle II

Active Knowledge Sharing Stages	Obstacles	Suggested Remedies
Questioning Stages	Students' have started actively answering questions on the	-
	worksheet, but still need to be guided	
Group discussion	Students' have not shown their	Teachers need to motivate
Stages	activity in group discussions	students' to be active in
		the discussion
Knowledge Sharing	Students' have started to dare to	-
Stages	share knowledge	
Disscussion Stages	Some students' have not grasped the concept of formulas in mathematics, for example the formula of the surface area of a flat side room	Teacher directs the way of understanding the concept of formulas in mathematics, for example the surface area of a flat side room

# Table 7. Learning Reflections On Cycle III

Active Knowledge Sharing Stages	Progress	Suggested Remedies
Questioning Stages	Students' are active to answer questions on the worksheet	-
Group discussion Stages	Students' are active in group discussions	-

Active Knowledge Sharing Stages	Progress	Suggested Remedies
Knowledge Sharing Stages	Students' are dare to share knowledge	-
Disscussion Stages	Students' understand the material they have learned	-

## 3.1.5. Reflection on Every Cycle

To get an overview of the implementation of the Active Knowledge Sharing strategy, interviews were made of a number of students'. The results of interviews from 9 students' consisting of 3 highly skilled students', 3 medium-skilled students', and 3 students' of low-ability students' were presented in Table 8.

No	Interview Questions	<b>Respondents Answer</b>	
1.	How do you feel about learning using	Active Sharing Knowledge learning	
	the Active Knowledge Sharing	becomes more interesting and fun	
	Strategy?	because we are helped by working	
		groups and sharing knowledge so that	
		worksheets can be filled properly.	
2.	What are the obstacles in mathematics	During the knowledge sharing stage, the	
	learning using the Active Knowledge	classroom atmosphere became crowded,	
	Sharing strategy!	material the timing of the problem was	
		too short so it was difficult to understand	
		the material taught by the group	
		representatives.	
3.	What are the benefits of learning	Through Active Knowledge Sharing	
	using Active Knowledge Sharing	learning, mathematical material is easy to	
	Strategy?	understand and the atmosphere of	
		togetherness is getting closer.	
4.	What are your expectations after	We hope to get good grades; can solve	
	following the mathematics learning	problems correctly.	
	using Active Knowledge Sharing?		
5.	What is the general group response to	We hope the Active Knowledge Sharing	
	the Active Knowledge Sharing	strategy is always applied in mathematics	
	strategy?	learning.	

Table 8. Interview Results with Students'

### 3.1.6. Analysis Students' Motivation Through Active Knowledge Sharing Strategy

Based on the results of the analysis, students'learning motivation in each cycle is in medium and high category, it means that students'are motivated in learning mathematics through Active Knowledge Sharing strategy. Increased motivation in each cycle is seen during group discussions at the knowledge sharing stage. Through the sharing of knowledge students' will experience increased understanding because of the mutual between students. The exchange of knowledge can be through the internet, peers and other sources. The principle of mutual exchange of knowledge is transferring knowledge to others. Between one person and another can exchange knowledge derived from their own experience (Bechina & Bommen, 2006).

Students' motivation on learning activity duration indicator is high in every cycle, it is indicated from percentage score reaching 66.75%, meanwhile students' motivation on learning activity frequency indicator is increase from medium level in cycle I (66.34%) to high category in cycle II (68.59%) and cycle III (69.17%). This aspect refers to the frequent or not of students' learning activities. This motivation is needed when students' are studying in the classroom or outside the classroom. While learning in the classroom with the Active Knowledge Sharing strategy there is a questioning stage, they must set the time for each step to pass well. Providing questions (tasks) is one effort to keep students' motivation so that knowledge will be obtained. Motivation is a determinant factor in learning, but students' motivation can change, when exposed to the environment that stimulate their attention. To keep students' engaged, students' need to maintain a taskoriented outlook on learning, which is associated with deep-level learning and learning for the sole gratification of acquiring knowledge.

In the indicators of diligence in learning, students' learning motivation shows a high percentage score in each cycle ( $\geq 65\%$ ). Perseverance in learning can be interpreted as violence of determination and sincerity in learning. In addition based on the questionnaire results this is also reflected when they do learning activities, they are diligent in undergoing all the stages in learning. While the indicators of fortitude, tenacity and ability to face percentage difficulties in the cycle I and cycle II in the category of medium ( $\leq 65\%$ ) and increased to high category in cycle III (68.50%). This indicates that students'have tried as much possible to overcome problems in learning. The students' effort through searching information related to mathematics learning that is internet, teacher, and classmates. High learning motivation is reflected by the non-breaking persistence to achieve success despite being confronted by difficulties. some of the characteristics of good learning motivation such as facing duties, tenacious to face difficulties and not quickly satisfied with the achievements that have been achieved.

Score percentage of students' aspiration level in teaching-learning activity in high category at each cycle ( $\geq 65\%$ ). Similarly, the level of loyalty and sacrifice to achieve learning achievement in the high category ( $\geq 65\%$ ). The knowledge sharing stage in Active Knowledge Sharing shows that the strength of the students' learning and the students' motivation to gain knowledge will be shared with their friends in the discussion. Through this stage each students' has valuable knowledge in the group.

Furthermore, the qualification level indicator shows the percentage score in the medium category ( $\leq 65\%$ ) in each cycle, it indicates that the skills that students' have in performing the stages in Active Knowledge Sharing are still not optimal, because the students' are not yet familiar with a learning that requires liveliness in thinking to share knowledge, while the indicator of students' attitude toward learning achieves high percentage score in each cycle ( $\geq 65\%$ ). The characteristics of the Active Knowledge Sharing strategy, including greater emphasis on the exploration of values and attitudes of students' (Bonwell & Eison, 1991).

# 3.1.7. Students' and Teacher Activity in Mathematics Learning with Active Knowledge Sharing Strategies on Classroom Action Implementation

Implementation of learning carried out in accordance with the steps of classroom action research starts from planning (planning), action (acting) and observation (observing) and ends with reflection (reflecting). At the planning stage the teacher prepares various tools that support the implementation of mathematics learning using Active Knowledge Sharing strategies such as making the Learning Plan) students' worksheet, determining the time required for each cycle that is  $6 \times 40$  minutes ( $3 \times 10^{-10}$  students).

Implementation of action in each cycle begins with apperception and motivation. At this stage the teacher explains the learning objectives and the relevance between the subject matter and the daily life. In addition, the teacher informs the lesson that will be implemented using the Active Knowledge Sharing strategy and the steps. The first stage of the Active Knowledge Sharing strategy, which is the questioning stage, teachers first group students' heterogeneously based on academic ability. The teacher divided the group into 7 groups, each group consisting of 4 and 5 people. Furthermore, the teacher distributes the Students' Worksheet containing a list of questions related to the subject matter to be taught.

During the discussion phase, the teacher invites the students' to discuss answers on the worksheets with their respective group members within the stipulated time. The teacher provides guidance and supervises the course of the discussion. In the next stage of knowledge sharing, each group assigns one students' as a group representative to ask another group within a predetermined time, where the group's representatives are different at each meeting. Groups that know the answer are obliged to share knowledge actively to other students' who do not understand. Representatives of groups who have completed the worksheets sit back in their respective groups. Group representatives are responsible for sharing the knowledge or information they get from other groups to their respective group members. After that the students' work on the mathematical understanding problems that are on their worksheets individually.

During the discussion strage, the teacher selects one of the group representatives at random to present the part of the completed worksheet and provide new information obtained from other group index cards. The information should not be the same as the information on the index cards in the group. Members of other groups are given the opportunity to give opinions and responses about what has been presented. Then the teacher and the students' discuss the results of the group work and provide reinforcement of the students' work. Teacher give rewards the best group. Each action requires students' and teachers to take an active role in performing the stages of Active Knowledge Sharing. Communication and interpersonal skills and the expression of students' ideas will arise during the learning process. This is in accordance to the opinion of (Majid & Chitra, 2013) stating that: "...active knowledge sharing, brings many benefits to students' such as better academic achievements, improved communication and interpersonal skills, appreciation for diverse ideas and viewpoints, positive inter-dependence, and a sense of satisfaction for contributing towards learning of others."

Observation of the actions performed on students' and teachers obtained good results with the average percentage of each of 73.65% and 81.97%. It indicates that students' and teachers succeed in learning mathematics with Active Knowledge Sharing strategy. Reflection activities are conducted between the teacher and the observer to discuss the constraints at each stage of Active Knowledge Sharing. These constraints are discussed together and look for remedial solutions for planning and action at the next cycle meeting. Based on the results of reflection analysis in each cycle it appears that there is a reduction of constraints for students' and teachers at each stage. By referring to reflection, students' and teachers demonstrate good activity in the following cycles.

### **3.2. Discussion**

Students' mathematical understanding through Active Knowledge Sharing strategy improves in every cycle. Through the stages of discussion, sharing knowledge and discussion, students' can solve mathematical solutions by linking a concept with other concepts. Based on the analysis and discussion, overall students' learning motivation through Active Knowledge Sharing strategy in each cycle is high. Thus, Active Knowledge Sharing strategy can improve students' motivation. Learning motivation is an internal and external impulse found in a person while learning to change behavior, and learning achievement. Interaction between students' which becomes an important stage in Active Knowledge Sharing has an impact on students' learning motivation. The use of this strategy can motivate the students' so interested to follow the learning, because at the beginning of learning students' have been motivated by giving questions. Based on the results of interviews with students', the students' felt attracted and helped by the sharing of knowledge among members of the discussion group, the mathematical material that had been considered difficult, became easy to understand, and the students' felt a close togetherness learn mathematics. Obstacles of students perceived when sharing knowledge, it is necessary for information from the teacher about the strategy of Active Knowledge Sharing, so that the learning process runs without noise. The proposed description concludes that mathematics learning through Active Knowledge Sharing strategy with classroom action setting is very effective to solve problems related to learning motivation, concept comprehension, and students' activeness. Classroom action research that has been done can answer the problems that have been appearing in class. Action research is an effort to alleviate real problems, to increase effectiveness (Hopkins, 2014).

### 4. CONCLUSION

Students'learning motivation in MTs. Al Mukhlisin Bandung Indonesia through Active Knowledge Sharing strategy shows the percentage increase in every cycle, that is 70.35% (cycle I), 71.17% (cycle II) and 72.15% (cycles III). The increase of learning motivation indicates that active knowledge sharing strategy is very effective to be applied to mathematics learning. Stages in active knowledge sharing (giving questions, group discussions, sharing knowledge and discussion) provide opportunities for students' to self-actualization to achieve good mathematics display learning outcomes. Students'mathematical understanding in MTs. Al Mukhlisin Bandung Indonesia through Active Knowledge Sharing strategy that increases in each cycle and the end of the cycle has reached classical mastery, that is 79.41%. Completeness of students' learning achieved during the last cycle, this indicates to improve understanding of mathematical concepts need to be carried out several cycles. Students' and teacher activity of MTs.Al Mukhlisin Bandung Indonesia during learning with active knowledge sharing increase in every cycle are 60.95% (cycle I), 73.33% (cycle II) and 86.67% (cycle III). Increased activity indicates that students' and teachers have mastered the stages of active knowledge sharing strategy. Reflection on each action becomes a reference for improvement of the next meeting.

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