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Efforts to Increase Student Activeness Through Learning Models *Talking Stick*in Class VII SMP Data Material

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ABSTRACT

This research was motivated by the low level of student activity while studying at SMP Negeri 1 Banyuwangi. The aim of this research is to increase the activity of Class VII students at SMP Negeri 1 Banyuwangi in the learning process using the Talking Stick learning model. This survey data collection technique uses classroom observation. The research subjects were all 36 students in class VII F of SMP Negeri 1 Banyuwangi. The results of the research showed that there was an increase in activity in the learning process by collecting activity data in the pre-cycle period, namely from 36 students to 18 students with a level of 50% increasing to 66.67% with the number of students being 24 in Cycle

I. And continuing to increase to 86, 11% with the number of students in cycle II being 31 students. The increase in student learning achievement was due to students understanding the concept of learning through the steps contained in the Talking Stick learning model and students were involved in learning more enthusiastically.

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INTRODUCTION

According to the law of numbers decision no. 20 of 2003 concerning the national education system stipulates that learning is a process of interaction between students and educators and learning resources in the learning environment. There are several characteristics and characteristics of learning according to Sugandi, et al. (2000) include: (1) learning is carried out consciously and systematically planned, (2) learning can arouse students' attention and motivation,

(3) learning can provide interesting and stimulating learning materials for students, (4) learning can supported by appropriate and enjoyable learning methods, (5) learning can create a safe and enjoyable learning atmosphere for students, and (6) learning can prepare students to take part in lessons both physically and psychologically. According to Zain (2010: 10) states that learning is a process that changes human behavior thanks to experience and education. Judging from the definition above, it can be concluded that learning is a process of changing behavior carried out by humans and takes place continuously and becomes an experience, practice, learning, in interaction with the environment around the school. The definition of learning can also be understood as a process carried out by a person

teacher or student to help a student or students learn well. Another meaning of learning is the teacher's conscious effort to involve students in learning, namely the occurrence of changes in behavior in students, where changes occur through the acquisition of new skills that are valid at a certain time and through effort.

Effective education involves students actively in the learning process. However, in many cases, students tend to be passive and less involved in learning in class, especially if the material taught includes data. This is important to increase student activity because active students tend to understand better and are more involved in learning. (Ahmad Susanto, 2016: 186-187) states "Mathematics learning is a teaching and learning process built by teachers to develop students' creative thinking and can improve the ability to construct new knowledge with the aim of increasing the use of knowledge and mastery of mathematics". Mathematics learning according to Herman Hudoyo (2000:56) is becoming familiar with mathematical concepts and structures contained in research materials and looking for relationships between mathematical concepts and structures. According to Cobb (Erman Suherman, 2003:71) mathematics learning is learning where students actively build mathematical knowledge.

From the description above, it can be concluded that mathematics learning is an active and constructive process where students try to solve existing problems and become recipients or sources of learning and look for relationships, connections between mathematical concepts and structures in them. The curriculum is a set of rules that contain learning objectives, content and materials that guide the implementation of learning activities. The existence of the curriculum aims to achieve better quality education. The same applies to the objectives of the independent curriculum itself. One of the goals of the independent curriculum. Overall, the independent curriculum is a diverse intracurricular learning curriculum. Where the content is more optimal for students to have sufficient time to explore concepts and build skills. Teachers then have the power to choose different teaching media so that learning can be tailored to students' learning needs and interests. This curriculum is intended to strengthen the achievement of the Pancasila student profile which is developed based on certain topics determined by the government. When a project is not intended to achieve a specific academic success goal, it is not related to course content.

Based on observations made in Class VII F of SMP Negeri 1 Banyuwangi, information was obtained that the problem in this class was students' communication skills or activeness when participating in mathematics learning activities, or it could be said that the class had insufficient learning activities. The problem in the classroom is that students pay less attention to lessons and carry out other activities outside the learning context. This problem is caused by the lack of attractive learning models used by teachers. If left permanently it will continue and greatly affect success in achieving academic goals, especially learning mathematics.

In the information age, understanding data and the skills to manipulate and analyze data are becoming increasingly important. Data has become an inseparable part of various aspects of life, both personal and professional. Therefore, it is important for students to develop their abilities in understanding and processing information with data. Linked to learning materials, the use of the Talking Stick learning model has the potential to increase student learning achievement through student activity or activeness in learning. By giving each student the opportunity to speak and convey his opinion, this model encourages students to express their thoughts, ask questions and interact with their classmates. This can help students better understand data concepts, develop analytical skills, and increase their engagement in learning.

According to Carol Locust as quoted by (Ramadhan, 2010) shows that the Talking Stick learning model is a cooperative learning model carried out with sticks. Talking Stick is an English word which means talking stick. In models In this lesson, students holding sticks must answer questions asked by the teacher. The Talking Stick learning model is said to be able to encourage students to be more active in expressing their opinions and students feel happy while learning because usually when the stick is passed from student to student it is accompanied by cheerful music. The Talking Stick learning model can be applied at all levels of education because it not only teaches students to speak but can also create a classroom atmosphere that is fun and involves students.

Activities in the form of student activity are something that plays an important role in every teaching and learning process. According to Sardiman (2011), activeness is activity that is physical and mental, namely acting and thinking as a series that cannot be separated. According to Surtikanti & Santoso (2007), quality learning is students' active participation in learning.

Participating in asking questions is an activity of listening, carrying out tasks, encouraging participation, appreciating input/opinions, accepting responsibility, asking teachers or peers, and answering questions. By actively participating in the learning process, students can stimulate and develop their skills. In addition, they can practice critical thinking and solve problems related to everyday life.

Active learning means fast and responsive learning, fun, enthusiasm, personal involvement and something that is highly educational. Active students must know how to hear, see, answer questions and talk to others. Indicators of active learning according to Sudjana (2016: 61) can be seen from several things, namely: (1) When teaching and learning activities take place, students participate actively in working on their own learning tasks, (2) Students want to be involved in problem solving in learning activities, (3) Students want to ask their peers or teachers if they do not understand the material or experience difficulties, (4) Students want to try to find information that may be needed to solve the problems they face, (5) Students conduct group discussions under the guidance of the teacher, (6) Students) Students can assess their abilities and the results they have achieved independently, (7) Students practice finding problems and then solving the problems found, and (8) Students have the opportunity to use or apply what they have achieved to solve the tasks or problems they face. Meanwhile, the research activity indicators raised based on the opinion above are: (1) Carrying out assignments according to the specified time, (2) Actively involved in group discussions, (3) Answering and asking questions, (4) Solving problems that arise during the learning process., (5) Express opinions and give positive feedback.

In fact, if they only listen to lectures, discuss and work on questions, students will tend to be passive, because only a few students follow the learning process well, so other students often get minimal grades. Departing from these problems, the author is interested in conducting classroom action research with the title "Efforts to Increase Student Activeness Through the Talking Stick Learning Model in Class VII Middle School Data Material".

METHOD

This research was carried out at SMP Negeri 1 Banyuwangi, and the research targets were all students in class VII F for the 2023/2024 academic year, totaling 36 children. Implementation of actions in class groups will be carried out over two cycles. The type of research carried out is Classroom Action Research (PTK). Classroom Action Research (PTK) is research (*action research*) which is carried out to improve the quality of learning in the classroom. McKay (2006:29) says that action research has three main characteristics, including being carried out by practitioners (i.e. teachers in the classroom), collaboratively, and with the aim of changing something. This means that classroom action research can be carried out by a teacher in class with the help of other teachers to discuss what and how to improve class activities so that students' learning activity becomes better.

Research procedures are the steps carried out during the research process. It is hoped that the results of this research will provide effective and efficient learning outcomes that are in line with expectations. This classroom action research was carried out systematically collaboration with mathematics teachers, in this research collaboration with mathematics teachers is needed so that the research runs according to expectations and obtains maximum results.

Collaboration with mathematics teachers was carried out from the beginning of the research. Collaboration is carried out starting from: a) initial observation, b) action planning, c) action implementation, d) reflection, e) evaluation. Data collection is one of the main activities that must be considered in research. In this research, the data collection method used is observation.

Arikunto (2013:17) explains that one PTK cycle consists of four steps, namely: (1) planning, (2) implementation, (3) observation and (4) reflection. In other words, implementing PTK is a form of teacher reflection which aims to improve the quality of learning so that student learning outcomes improve (Aqib, 2014). In this research, class refers to students as subjects, as in Arikunto's opinion, the meaning of using the word class in PTK is the subject that is the target of improvement. The stages or flow of PTK implementation (Arikunto, 2017) can be seen in Figure 1.



Figure 1. Classroom Action Research Cycle

Based on Figure 1 above, the PTK implementation flow takes place over two cycles. Each cycle has four continuous stages starting from the first cycle to the second cycle, and so on. Four stages in

each cycle consist of stages*planning*(planning),*action* (implementation),*observing*(observations), and *reflection*(reflection). The first is the planning stage, at this stage the researcher plans the PTK in two cycles by designing teaching modules, learning media and resources, and learning activity observation sheets. Second, the implementation stage. At this stage, researchers follow up on the planning stage by applying it to the implementation of learning in the classroom using a learning model *Talking Stick*. At this stage, the researcher follows the steps that must be taken into account as explained by Arikunto, namely the suitability of implementation and planning, the smoothness of providing actions to students and their situations, and the effectiveness of learning based on indicators (Arikunto, 2017).

Then third, the observation stage, namely the process of observing the implementation of actions (Arikunto, 2017). At this stage, the researcher makes notes about all student activities during the learning process using the model*Talking Stick*. The researcher did this to determine the suitability of the learning implementation with the observation sheet which became a reference for improvement for the next cycle. Fourth, the reflection stage which is an analysis process of providing actions in each cycle. The effectiveness of using the method can be seen from the positive changes that occur in teachers and students, especially changes in increasing students' interest in learning (Setyadi et al., 2018).

Thus, the results of the reflection can be used as a reference for improvement to plan the next cycle. In this research, the researcher obtained assistance from the class teacher and discussed several important things for improving the quality of learning. From this process, researchers have additional information regarding deficiencies and alternative solutions in the next cycle. The subjects of this research were class VII students of SMP Negeri 1 Banyuwangi, East Java. The implementation time is in the even semester 2023/2024. This research instrument is in the form of an observation sheet which contains indicators of student activity and implementation during learning activities in the classroom. It is hoped that the learning method with models will be used *Talking Stick*in class VII F students of SMP Negeri 1 Banyuwangi in the 2023/2024 academic year, affective scores can be increased by at least 75% of 36 students.

FINDINGS AND DISCUSSION

Findings

Based on the research conducted, the presentation in each cycle is as follows. **1**.*Pre Cycle*

The pre-cycle was held on Wednesday, 17 May 2023 in class VII F of SMP Negeri 1 Banyuwangi. At this stage, researchers observe problems in the classroom during the mathematics learning process. Previously, the learning model used in this class was still teacher-centered, so that all students appeared passive during learning activities. This is indicated by the minimal interaction that occurs between teachers and students and students and students, so that learning seems to beteacher centeredNostudent centered.

The teacher's mastery of the teaching materials or subject matter provided is sufficient, but due to the teacher's lack of ability to package lessons, they are less creative, monotonous, boring, less interesting, which ultimately leads to the achievement of inadequate learning outcomes, so that the relationship between teacher and student becomes stiff (Sihotang, 2017). Apart from that, as for the activities carried out by students during learning activities, the topics discussed are outside the material being studied, thus causing a crowd in the classroom when learning takes place. The results of observations at the pre-cycle stage in class VII F of SMP Negeri 1 Banyuwangi regarding mathematics learning material regarding data can be seen in Table 1.

No.	Activeness Indicator	The number of students	Percentage (%)
1.	Carry out tasks according to the	18	50%
	specified time		
2.	Actively involve in group discussions	15	41.67%
3.	Answer and ask questions	12	33.33%
4.	Participate in solving problems that arise during the learning process	13	36.11%
5.	Express opinions and give positive feedback	16	44.44%
Aver	age (%)		41.11%

Table 1. Observation results of student activity in the pre-cycle stage

Based on the observation results obtained, there were only 41.11% of the five active indicators. This shows that students are less active in learning. The low level of activity carried out by students during the learning process can result in learning becoming teacher-centered. So researchers together with tutors design learning that invites students to participate actively during learning activities. Researchers use a learning model *Talking Stick* which indirectly invites students to dare to actively ask questions, answer questions and express opinions while holding the stick when the music playing stops.

a. Planning (Plans)

What planning means is arranging everything that needs to be prepared before observing learning methods by weighing and measuring what can happen. Stages that need to be used as a reference before planning, such as setting specific goals, formulating learning conditions using the method used, identifying all possibilities that will occur in implementing the method.*Talking Stick*, develop and organize method steps. What is done at this planning stage is to make a learning implementation plan (in the form of teaching modules), prepare media (sticks), make assessment sheets, prepare questions (Muttaqin et al., 2021)

2. Cycle I

The first cycle will be held on Monday, May 22 2023. There are three steps*Lesson Study* namely implementation (*do*), observation and reflection (*see*). This cycle is an implementation of planning designed after the pre-cycle.

a. Implementation (Do)

Cycle I was carried out once. In this cycle, students study data material through LKPD provided by the teacher. The steps for learning activities in this cycle are that students are divided into 6 groups consisting of 6 students. Each group is given a LKPD as discussion material to work on together. Then after finishing the work, each group holds a stick (*stick*) and the teacher prepares the music to play. When the music sounds, then the stick (*stick*) walk around continuously until the music stops then the stick (*stick*) must also stop. Every student holding a stick is required to ask questions about the topic being studied. In the next round, the student holding the stick (*stick*) must answer questions from students' questions in the previous round, if they cannot answer then students must do the questions provided by the teacher. And so on until all students have a speaking part.

b. Action Observation in Cycle I

In cycle I, students begin to get to know the learning model *Talking Stick*. There are group discussions, interaction between students and students and teachers and students during learning activities. Some students began to be active in group discussions, asking questions, giving opinions, working on questions, and getting involved in solving problems that arose. However, some other students are still passive. Some students are still adapting to the learning model *Talking Stick*, so researchers need to take action and re-observe in the second cycle. The results of observations in cycle I can be seen in Table 2.

No.	Activeness Indicator	The number of students	Percentage (%)	
1.	Carry out tasks according to the specified time	24	66.67%	
2.	Actively involve in group discussions	20	55.56%	
3.	Answer and ask questions	18	50%	
4.	Participate in solving problems that arise during the learning process	22	61.11%	
5.	Express opinions and give positive feedback	23	63.89%	
Average (%)			59.45%	

Table 2. Results of observation of cycle I actions

From the table above, it can be said that the learning outcomes carried out by the teacher in cycle I were still not optimal. It can be seen that the overall average indicator of student activity only reached 59.45% of the 36 students who actively participated in learning. This is certainly a greater percentage of students who are passive compared to the percentage of students who are active in terms of the five observation indicators made by the researcher.

c. Observation and Reflection (See)

Based on the results of the actions in cycle I, the researcher identified several problems found for improvement in the next cycle. Several cases found in cycle I included: (1) students were still adapting to discussion learning, because previously students tended to only listen and write material presented by the teacher; (2) students still look confused when asked to ask and answer questions; (3) students still take a long time to connect the knowledge they have when working on questions. The alternative solutions/actions provided include: (1) familiarizing students with cooperative learning which invites students to group discussions; (2) provide encouragement to all students to be braver and more confident in asking and answering questions; (3) providing reinforcement and positive feedback to students so they are active in learning. At the end of learning in cycle I, the teacher said that at the next meeting the learning would be carried out like the previous meeting, namely using a learning model*Talking Stick* with process differentiation.

3. Cycle II

The second cycle will be held on Wednesday, May 24 2023. There are four steps*Lesson Study* namely implementation (*do*), observation and reflection (*see*). This cycle is a continuation of cycle I.

a. Planning (Plans)

The planning prepared in cycle II includes arranging everything that needs to be prepared before making observations on learning methods by weighing and measuring what might happen. Stages that need to be used as a reference before arranging planning include setting specific goals, formulating learning conditions with the methods used, identifying all possibilities that will occur in implementing the learning model*Talking Stick*, develop and organize method steps. In the planning stage, researchers compiled teaching modules by paying attention to improvements needed to focus more on increasing student activity. The differentiation chosen is process differentiation. Selection of teaching materials, preparation of interesting student worksheet (LKPD) and observation sheets used in cycle II.

b. Implementation (Do)

Cycle II was carried out once. In this cycle, students learn how to present data through LKPD given by the teacher. By paying attention to the improvements that had been reflected in the previous cycle I, in this cycle the researcher focused on students' activities in group discussions and during stick time (*stick*) which goes around when the sound of music is playing and stops when the sound of the music is stopped. The teacher ensures that each student holds a stick (*stick*) when the music stops, must ask or answer questions according to the initial agreement.

c. Observation of action cycle II

In cycle II, students already understand the learning model*Talking Stick*, start to be brave and active in asking questions, giving opinions or positive responses, answering questions and understanding the material better and being able to answer questions given by the teacher. Likewise, students also look very enthusiastic during the learning process. Researchers made observations on several students who previously seemed passive, starting to carry out new activities during learning. As for the results of observations

Actions in cycle II can be seen in Table 3.

No.	Activeness Indicator	The number of students	Percentage (%)
1.	Carry out tasks according to the specified time	31	86.11%
2.	Actively involve in group discussions	28	77.78%
3.	Answer and ask questions	29	80.56%
4.	Participate in solving problems that arise during the learning process	27	75%
5.	Express opinions and give positive feedback	30	83.33%
Avera	ge (%)		80.56%

Table 3. Results of cycle II action observations

Based on the table above, it shows that the five indicators were achieved 75%, of them namely: (1) Carrying out assignments according to the specified time was 86.11%, which means that 31 out of 36 students were able to complete assignments on time; (2) Actively involved in group discussions was 77.78%, which means that 28 out of 36 students began to be actively involved while working on the LKPD with the group; (3) Answering and asking questions was 80.56%, which means that 29 out of 36 students were able to answer questions from the teacher and their peers and were brave and creative in asking questions related to the material being studied; (4) Participating in solving problems that arise during the learning process is 75%, which means that 27 out of 36 students participate in solving problems that arise during the learning process, so that problems can be resolved quickly; (5) Expressing opinions and giving positive responses was 83.33%, which means that 30 out of 36 students were starting to be creative in expressing their opinions and giving positive responses to their friends' opinions.

d. Observation and Reflection (See)

Based on the results of actions in cycle II, the researcher identified several things significant change. Several cases found in cycle II included: (1) students began to understand the rules of the game in the learning model *Talking Stick*; (2) students are getting used to group discussion activities, asking questions, answering questions and giving positive opinions or responses; (3) students slowly begin to understand the material being studied and can complete and answer questions given by the teacher. At the end of learning cycle II, the teacher told students to continue to increase positive activities during the learning process.

Discussion

The results of research actions from pre-cycle, cycle I to cycle II show that there has been a change and increase in the learning activity of class VII F students at SMP Negeri 1 Banyuwangi in the 2023/2024 academic year in the affective aspect. Students who actively participate during the learning process means that students can meaningfully understand the material presented by the teacher (Meganingtyas et al., 2019). Students are able to understand the material being studied through various activities during classroom learning activities. As a facilitator, of course the teacher must be able to facilitate every student's learning needs. That way, students will certainly find it easier to learn any material presented by the teacher and be able to achieve the expected learning goals. The increase in learning activity in the affective aspect can be seen in Table 4.

	Pre Cycle		Cycle I		Cycle II	
Activeness Indicator	Qty		Qty		Qty	
	student	%	student	%	student	%
Do task in accordance	18	50	24	66.67	31	86.11
specified time						
Actively involve in group	15	41.67	20	55.56	28	77.78
discussions						
Answer and ask questions	12	33.33	18	50	29	80.56
Participate in solving problems	13	36.11	22	61.11	27	75
that arise during the learning						
process						
Expressing opinions And	16	44.44	23	63.89	30	83.33
give response Which						
positive						
Average (%)		41.11		59.45		80.56

Table 4. Average overall activity of class VII F students

From the table above, it can be seen that there has been an increase in the activeness of the results of observations made in class VII in the affective aspect. In the pre-cycle stage the average percentage obtained was only 41.11%, then in the first cycle stage it increased to 59.45% and in the second cycle student activity increased to 80.56%, so from the data obtained above it can be seen It was stated that the results of research regarding student activity during the learning process in class through observation had increased in each cycle. This can increase due to reflection carried out by teachers to improve the quality of their teaching or by correcting mistakes made at previous meetings so that they can be used as a reference as a means of improvement to improve the quality and process of learning (Nurrohim et al., 2022) . The results of observations regarding increasing the learning activity of class VII students at SMP Negeri 1 Banyuwangi for the 2023/2024 academic year regarding detailed data material can be seen in Figure 2.



Figure 2. Graph of Increasing the Activeness of Class VII Middle School Students with the Model Learning *Talking Stick*

The research results show that the use of learning models*Talking Stick*can effectively increase student activity in learning data material. Students feel more involved and dare to speak in front of the class. They are also more active in providing feedback and asking other students. Apart from that, this learning model also helps in improving communication and collaboration skills between students. In this research, researchers focus on actions taken to foster students' activeness in the learning process. In this research, the indicators used include students' activeness in doing assignments according to the allotted time, being actively involved in group discussions, answering and asking questions, solving problems that arise during the learning process, as well as expressing opinions and giving positive feedback.

Student activity in the first cycle was 59.45%, which included: (1) Carrying out assignments according to the specified time, 66.67% with a total of 24 students, (2) Actively involved in group discussions, 55.56% with a total of 20 students, (3) Answering and asking questions was 50% with a total of 18 students, (4) Solving problems that arose during the learning process was 61.11% with a total of 22 students, (5) Expressing opinions and giving positive responses was 63.89% with a total of 23 students.

Student activity in the second cycle was 80.56%, which included: (1) Carrying out assignments according to the specified time, 86.11% with a total of 31 students, (2) Actively involved in group discussions, 77.78% with a total of 28 students, (3) Answering and asking questions was 80.56% with a total of 29 students, (4) Solving problems that arose during the learning process was 75% with a total of 27 students, (5) Expressing opinions and giving positive responses was 83.33% with a total of 30 students.

From the data obtained above, it shows that student activity increased from cycle I to cycle II by 21.11%, namely cycle I was 59.45% and cycle II was 80.56%. The research data proves that student activity can be increased through a fun teaching and learning process, one of which is by

implementing the cooperative learning method *Talking Stick*. Based on the results of observations and reflections in cycle I and cycle II, the learning process was said to be successful. This is shown by an increase in student activity from pre-cycle to cycle II. Implementation of classroom actions carried out by researchers in 2 cycles can increase student activity.

CONCLUSION

Based on the results of classroom action research which was carried out for two cycles on class VII students of SMP Negeri 1 Banyuwangi for the 2023/2024 academic year, the conclusions that can be drawn from the results of the research that have been carried out are as follows.

- 1. Model cooperative learning method *Talking Stickeffective* for increasing student learning activeness in the affective aspect.
- 2. Observation results of student activity during the learning process in the affective aspect for cycle I with a completion percentage of 59.445%. In cycle II student activity increased with a completion percentage of 80.556%.

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CONFLICT OF INTEREST

The author declares that there is no personal conflict of interest that could inappropriately influence the representation or interpretation of the results of the research conducted. In carrying out this classroom action research, the author stated that this research activity was purely carried out on the basis of discovering conflicts in classroom learning through observation activities over several cycles to provide positive effectiveness in efforts to increase student activity during learning activities.

REFERENCE

Arikunto, S. (2017). Classroom action research. Jakarta: PT. Literary Earth.

Aqib, Z. (2014).*Classroom Action Research for Elementary, SLB and Kindergarten Teachers*. Yrama Widya. Ministry of National Education. (2003).*Republic of Indonesia Law No.20 of 2003*. About the National Education System. Djamarah. S.B, Zain. A. (2010).*Teaching and Learning Strategies*. Jakarta: Rineka Cipta.

Erman Suherman, et al. (2003).*Contemporary Mathematics Learning Strategies*. Bandung: JICA-UPI. Hudoyono, Herman. (2000).*Curriculum Development and Mathematics Learning*. Malang: Publisher

Malang State University.

McKay, S.L. 2006. Researching Second Language Classrooms. London: Lawrence Erlbaum Associates.

Meganingtyas, BR, Winarni, R., & Murwaningsih, T. (2019). The Effects of Using Course Review Hooray and Talking Stick Learning Methods Towards Social Science Learning Results Reviewed From Learning Interest. *International Journal of Educational Research Review*, 4(2), 190–197. https://doi.org/ 10.24331/ijere.518053

- Muttaqin, AI, Fauzi, A., Ummah, VR, & Aziz, IA (2021). Implementation of the Talking Stick Method In Increasing Class VII Students' Interest in Learning in Pai Subjects at Smp Merdeka Sumbersari Srono.INCARE, International Journal of Educational Resources,2(2), 200–208. http:// ejournal.ijshs.org/index.php/incare/article/view/254
- Nurrohim, N., Suyoto, S., & Anjarini, T. (2022). Increasing Student Activeness Through Problem Models Based Learning in Civics Class IV Public Elementary School Subjects.*SITTAH: Journal of Primary Education*,3(1), 60–75. https://doi.org/10.30762/sittah.v3i1.157
- Ramadhan, Tarmizi. 2010. *Talking Stick*. Accessed on July 10, 2023 from wordpress.com website: http://tarmizi.wordpress.com.
- Setyadi, YB, Wafda, AH, & Setyaningsih, U. (2018). The Implementation of a Collaboration Between Reading Guide and Talking Stick Strategies to Increase Students'.*Proceedings of The Progressive and Fun Education International Conference, August,* 7–9.
- Sihotang, AH (2017). Effect of Time Token and Talking Stick Learning Model on Increasing Interest and Learning Outcomes on Social Sciences Student Fifth Grader at SDN 107458 Dolok Stillul Serdang Bedagai.8(36), 40– 44.

Sudjana, N., (2016). Assessment of Teaching and Learning Process Results. Bandung: Rosdikarya.

Sugandi, et al. (2000). Learning Theory. Bandung: PT. Teenager.

Surtikanti and Santoso. (2007). *Teaching and Learning Strategies*. Surakarta: FKIP Muhammadiyah University Surakarta.