

The Influence of Cooperative Type Time Token Studying Model to The Competency of Biological Attitude of SMAN 7 Padang Students

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Abstract - The aim of this research is to know the influence of cooperative *type time token* studying model to the competency of Biological attitude of SMAN 7 Padang students. This research was held on April 2019. This is a Quasi-experimental. The population in this research is all the students of in SMAN 7 Padang grade x that officially registered on school year 2018/2019. The sample of this research was grade X IPA 2 as the control class and grade X IPA 3 as the experimental class which was taken by using purposive *random sampling* technique. The instrument used was attitude assesment sheet. The data analysis was held by using T Test. The finding shown that there was significant difference between attitude competency experimental class and control class. The average value of students in experimental class was 84,37 and in control class 79,15. So we conclude that the cooperative studying model of *time token type* had significant effect in increasing competency of the students of SMAN 7 Padang.

Keywords - Competency of Biological Attitude, SMAN 7 Padang Students, Cooperative Studying.

I. INTRODUCTION

Education, according to Law Number 20 of 2003 is a conscious and planned effort so that students can actively develop their potential so that they have religious spiritual strength, personality, intelligence, and skills needed by themselves and society. But in the implementation of education there are still many problems including the low quality of education. The low quality of education in Indonesia has actually been realized by the government, so the government has tried to make various efforts to improve the quality of education.

The Effort to fix and improve the quality of education are always carried out by the government, including making

curriculum improvements. One of many ways that the government does in improving the quality of education is by applying the 2013 curriculum as a refinement curriculum for the Education Unit Level Curriculum (KTSP) requiring students to be more active than teachers. The curriculum 13 emphasizes character education, especially at the elementary level, which will be the foundation for the next level (Mulyasa, 2013: 6-7). Furthermore, Hosnan (2014: 1-2) explained that through the development of the 2013 curriculum which is character based and curriculum based will produce productive, creative, innovative, affective students through strengthening attitude, integrated skills and knowledge. The learning process can be integrated with

a scientific process, therefore the 2013 curriculum mandates the essence of the scientific approach to learning. The scientific approach is believed to be the development of students' attitudes, skills and knowledge. According to Minister of Education and Culture No. 81 A of 2013 concerning the standard process of primary and secondary education has hinted at the learning process combined with scientific or scientific approaches, the learning process consists of five main learning experiences namely observing, asking, gathering information, associating and communicating. Scientific learning focuses on the learning process directed at developing students' skills / activities in processing knowledge, discovering and developing their own facts, concepts, and values needed.

The curriculum change is expected to be an improvement material to achieve learning goals in shaping dignified behavior and national civilization in order to educate the nation's life through the learning process. Learning in essence is a process to achieve competence through teaching and learning activities that are directed and systematic. In the learning process, teachers and students greatly influence the success of the learning. The teacher is an educator whose job is to plan, implement and evaluate learning outcomes. To carry out this task, the basic skills and skills of teachers are called teacher competencies, so that teachers can determine methods, media and appropriate learning model with the material characteristic and the students they teach.

According to the interview conducted on Biology teachers at SMAN 7 Padang on July 18, 2018 with 2 teachers, it can be seen that teachers have not applied the 2013 curriculum learning model with a scientific approach that has been recommended, namely project-based learning models, discovery learning models, and problem-based learning models can be seen in Appendix 1. Teachers tend to apply the lecture and question and answer method, although other methods such as the method of discussion are also applied once in a while, but this method causes students to be less actively involved in the learning process. Learning that uses the lecture method and question and answer is less able to motivate all students to think and be active in learning activities. Lufri (2007: 31-32) presents several weaknesses of the lecture method, which cannot cover various types of student learning, boring students if it takes too long, causes passive learners, and makes students dependent on their teacher

Conventional learning applied by teachers in the classroom has an impact on the lack of motivation of

students in the learning process. Many students do not want to ask questions and tend to take for granted the material presented by the teacher. Another impact of conventional learning that teachers use is that students are not accustomed to discussing with friends in solving questions given by the teacher and are less skilled in expressing opinions in front of the class

In addition, it is known that teachers only emphasize the knowledge aspects of students. Most teachers evaluate the competencies of students more from their learning outcomes. Learning competencies of students, not only knowledge but include aspects of attitudes and skills that have the same role as knowledge in achieving good learning outcomes. In the realm of attitude related to emotional aspects such as curiosity, responsibility and diligence. In the realm of skills related to skills aspects such as preparing reports, solving questions, problems and making presentations. Learning that does not involve students actively causes a lack of balance in the knowledge, attitudes and skills of students. Though these aspects are related to the formation of character and expertise. This cannot be achieved if the learning model presented is less able to motivate the involvement of each class member. In addition, it appears that there are still students who have not prepared themselves in the learning process because students are less motivated and interested in learning.

The impact of learning problems is that students are not serious and are less involved in the learning process. Students look saturated and lack preparation in facing the learning process because of limited learning activities. This was also stated by the teacher, because of the activities of the students the values for attitudes and skills were very difficult to determine based on the activities of the students in the class when learning took place.

The low learning outcomes of these students can be caused by several factors, students as students, teachers as educators also facilities and infrastructure. Another factor that cause of the low achievement of student learning outcomes is applying of the teacher center learning system. Teachers tend to aim at completing material in accordance with curriculum objectives than mastering the concepts of students with the basic competencies students must possess.

Based on observations made on class X students of SMAN 7 Padang on July 18, 2018, information was obtained that some students who did not pay attention to the lesson were seen when the teacher explained the lesson, sometimes students also tended to be busy with activities not related to the learning activities. Like when the teacher

asks students to take notes, students talk to their friends instead. This causes the class atmosphere to become noisy and uncontrolled

Biology is one of science learning that requires students to think more powerfully and independently. Biological material is related to nature widely and systematically, so that biology is not only mastery of a collection of knowledge in the form of facts, concepts, or principles but also a process of observation and discovery (Ministry of National Education, 2003).

Remembering the importance of learning biology, it needs the effort of every side to improve quality in biology learning. The government has also tried to improve the quality of biology learning in schools, including: improving the curriculum, conducting trainings for teachers, adding educational facilities and infrastructure, and also developing various learning methods aimed at improving the quality of education.

The effort that can be made by teachers to improve students' acceptance and understanding of the lessons provided is to use a variety of learning models. The use of various types of learning models, it is expected that the teaching and learning process will be more meaningful and enjoyable so that students will be more active and the results obtained will be better. One model that is thought to be able to create an interesting learning atmosphere, motivates students and is fun when students learn the material is a cooperative learning model.

Learning with cooperative models makes students will cooperate with each other so that students with low abilities will be helped in understanding biology. This learning model can also make students accept the shortcomings of other students. The scoring system is carried out on groups. Each group will get an award, if the group is able to show the required achievements.

Cooperative learning models that can be used by teachers, to assist in controlling students, who overly dominate learning and who never speak at all, are cooperative learning time token models. This is in accordance with the opinion of Ibrahim (2005: 51) that "cooperative learning time-token type is expected to trigger the enthusiasm of students to be actively involved in the learning process, so that it is not dominated by some students". Time token cooperative learning is able to create interaction patterns in the learning process so that students can sharpen knowledge, explore creativity, and generate

motivation and information that can improve students' academic mastery.

In Learning time tokens that are used there must be teaching materials that are supporting, here the teaching materials used are LKPD (Student Worksheet). With the existence of teaching material LKPD as a learning resource that can support students think critically and construct their own understanding by loading learning activities that include the syntax of the Time Token model. Halsyar (2015) states that the Time Token learning model can train social skills and communication skills, and avoid the dominance of conversations of students who are completely silent. This model makes students more active in learning.

In the learning process, teachers are faced with the ability of the beginning of diverse students is possible to influence the process and learning competencies. The initial ability can describe the readiness of students in receiving lessons to be delivered by the teacher. According to Slameto (2010: 25) What about new materials can be studied well, depending on what is known. Thus, the initial ability of students is a prerequisite for students to be able to take lessons, so that they will achieve better learning competencies.

The initial ability and learning model are two very important things to be noticed by the teacher before starting the learning process. According to Astuti (2015: 7) initial abilities are learning outcomes obtained before gaining higher abilities. The initial ability of students is a prerequisite for participating in learning so that it can carry out the learning process well. A person's ability is obtained from training during his life, and what is brought to face a new experience.

The Time Token Type Model of students is easier to understand the learning material because in learning the teacher considers the students' initial abilities so that students' competencies are expected to increase. Raditya (2017) states that one of the learning models that can help overcome learning problems is the Time Token model. This learning model is included in the learning model that prioritizes study groups. The cooperative learning model prioritizes cooperation in solving problems to apply knowledge and skills to achieve learning goals.

Based on the problems above, the researcher will conduct a study of the effect of cooperative learning models of the LKPD assisted time token type on the learning competencies of biology students in SMAN 7 Padang.

II. RESEARCH METHODS

This type of research is quasi-experimental research. The population in this study were all class X students of SMAN 7 Padang who were enrolled in the 2018/2019 school year. The sample in this study was class X IPA 2 as a control class and class X IPA 3 as an experimental class taken by purposive random sampling technique. The instrument used is the attitude assessment sheet. Data analysis was performed using the T test.

III. RESEARCH RESULTS AND DISCUSSION

The data research in this attitude domain is obtained through observation during the learning process, which is six meetings. Observations are carried out by the observer using the format for assessing the realm of students' attitudes. Data on domain competency attitudes are presented in Table 10 can be seen in Appendix 20 pages 191-192)

Table 10. Average Value, Maximum Value, Minimum Value, from Experimental Classes and Attitude Competency Control.

class	N	$\bar{X}$	Xmin	Xmaks
Experiment	32	84,37	76,00	91,00
control	32	79,15	71,00	89,00

Based on the results of calculations in Table 10, it is clear that the class attitude learning competencies that use the time token type learning model obtain maximum and minimum values better than students who follow the learning of conventional models.

Each sample class in the attitude domain is divided into two groups, namely groups of students who have low initial abilities. The average final learning competency test of students' attitudes using the time token type learning model is 84.37 and those using conventional learning models are 79.15.

Attitude assessment is a supporter of the learning process used. Based on the observations of the realm of the competencies of the students' attitudes conducted by the observers, it was obtained that the real-world competency data of students' attitudes in the experimental class was significantly better than the competencies of students' attitudes in the control class. The realm of competency in the attitude of students in the experimental class as a whole has good criteria. Students' curiosity about the discussion material made students focus and active in the learning process, responses, and answer questions that arise in the

learning process. The high level of cooperation in discussions, because students are responsible for answering the questions that have been given, stimulates them to be more actively involved.

In the learning process students develop the creativity of students' social skills in expressing their ideas or opinions and are able to improve student learning outcomes themselves, problems that are used by the teacher in the form of LKPD so that when the learning process focuses on the problem given, students believe self convey the problem encountered. Students sit quietly and carefully following the discussion. In discussing students also look responsible and earnest in solving questions, students socialize well and enthusiastically contribute their opinions to complete the LKPD in discussion. When discussions where the teacher guides the group, the teacher only directs a little for the problem found, because students work together to convey the understanding that has been gained in the learning process.

In the learning process, it can be said that the use of the time token cooperative learning model is better and more effective in increasing the learning activities of students in the learning process, the problems contained in the LKPD and other students are also listening. This gives enough space for students to develop their abilities, cooperate with their groups to discuss, freely give opinions. Learning type time tokens are developed so that each student or discussion group member has the opportunity to contribute and listen to the views and thoughts of other members. This model has a teaching structure that is very suitable to be used to improve student learning activities.

This shows that the application of the time token type learning model can maximize the realm of student competencies. This learning model provides a different atmosphere in the learning process, because each student has a responsibility so as to foster confidence to ask or respond to friends' opinions.

Based on these explanations, it can be concluded that the realm of learning competencies in the attitudes of students who follow the time token type learning model is significantly better than the realm learning competencies of students who take conventional learning.

IV. CONCLUSION

The results showed that there were significant differences between the attitude competencies of the experimental class and the control class. The average value of students in the experimental class was 84.37 and in the

control class was 79.15. So that it can be concluded that the Cooperative Type Time Token learning model has a significant effect in improving the competency of the attitude of the students of SMAN 7 Padang.

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