The Improvement of Students' Learning Outcomes With the Implementation of Cooperative Learning Model *Think-Talk-Write* (TTW) at the X_1 Grade of State Senior High School 1 Kampar Kiri in Academic Year 2014/2015

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ABSTRACT

The research was classroom action research applied to students of State Senior High School 1 Kampar Kiri grade X_1 which amounted to 32 people. The objective of theresearch was to improve students' learning outcomes grade X_1 with the application of cooperative learning model *Think-Talk-Write* (TTW) done in two cycles. The cooperative learning of *Think-Talk-Write*(TTW) was introduced by Huinker & Laughlin. Basically this learning was built through the process of thinking, speaking and writing. *Think-Talk-Write* (TTW) learning could grow problem-solving skills. The learning process of *Think-Talk-Write* (TTW) was conducted in groups of 3-5 students in each group. In this group students were asked to read, make small notes, explain, listen and share ideas with friends and then express it through writing.Think-Talk-Write (TTW) learning process. The results showed that an increase in students' learning outcomes which seen from the absorption and mastery of students' learning grade X_1 State Senior High School 1 Kampar Kiri. Absorption rate increased by 5%, while the learning mastery of students increased by 15.13%. Thus, a classroom action research using *Think-Talk-Write* (TTW) cooperative learning model could improve students' learning outcomes grade X_1 of State Senior High School 1 Kampar Kiri.

***Keywords**: Think-Talk-Write*, Absorption, Completeness

Introduction

Biology is one of the branches of Natural Science that has an important role. Teaching and learning activities are the most important activities in the overall educational effort. This is due to the teaching and learning activities both in daily life and in technological development so the desired goal will be achieved, and this also causes the need for innovation in the delivery of subject matter.

The fact found at schools is conventional biology learning that places teachers as learning centers for students, teachers are more active in learning activities so that teachers are difficult to know students' understanding of the subject matter.

From interviews with biology subject teachers at State Senior High School 1 Kampar Kiri who teach in class X1 it is known that students are difficult to understand the biology subject matter about Animalia especially in the chapter of Arthropoda. The value obtained by students mostly under the standard scores

is that 75, this is evident from the daily test score on the previous Basic Competence, the average of student score is only 50 and only 7 out of 32 people which are declared complete.

Based on the observations done during the learning process take place in the class X of State Senior High School 1 Kampar Kiri, researcher finds the fact that students only receive information submitted by teachers. Students do not want to think, not trying to find their own concept related to the subject matter. Another condition that is also encountered was the difficulty of students to communicate in the class either with the teacher or with their friends. Students do not want to come forward in front of the class.

These conditions can be caused by several things, including the way the learning is applied, where the teacher as the only source of information for students, teachers are not able to design learning that can make students active, thinking, and express opinions. To anticipate the condition, this needs to develop a learning strategy to encourage students to express and apply the ideas they have.

From many strategies that could be applied in biology learning, one of them is the TTW (Think-Talk-Write) strategy. Think-Talk-Write Strategy is a strategy that provides opportunities for students to think and build their own knowledge through direct involvement in every learning activity.

Think means to think (English-Indonesian dictionary). In KBBI think it means using reason to consider and decide something. According to Sudirman (2006: 20) says that "Thinking is a mental activity to be able to formulate understanding, synthesize and draw conclusions". Talk means to speak (English-Indonesian dictionary). While in KBBI talk means consideration, thoughts, opinions. Write means to write (English-Indonesian dictionary). In KBBI writing is to make letters (numbers etc) with a pen (pencil, chalk etc.).

Think-Talk-Write Strategy is basically an activity that encourages students to actively engage in thinking activities, to propose ideas or ideas before beginning to write, so that the understanding of the material learned arises from within the students themselves (Nurchayati, 2007).

Think-Talk-Write (TTW) strategy implementation steps are as follows:

Phase	Activities
I	Teachers motivate students and communicate learning objectives and convey learning objectives and deliver short learning materials
II	Teachers coordinate students to form groups and share keywords about the material they are learning.
III (Think)	Students read the text or subject matter according to the keywords obtained and mark the important concepts and things that are considered difficult, then write them on small papers
IV (Talk)	Students interact and communicate with their friends, discuss LKS and discuss ideas and understandings that have been recorded. Each student hasa right to convey ideas and listen to his friend's ideas to reinforce the answer. Teachers only act as mediators of learning.
V (Write)	Representatives of students and each group presented the results of the discussion. After that, students write down or reconstruct the results of individual discussions.

Mods (haunkler and Laughlin in Fauziah, 2008)

Learning is an effort process undertaken by a person to gain overall behavioral change, as a result of his own experience in interaction with the environment (Junaidi, 2009: 20).

Biology is not only the mastery of concepts but also related to the process of discovery. An invention is the result of the learning process. According to Djamarah (2002: 31), a learning outcome is a process of behavior change because of experience and practice, meaning the goal of learning is a change in behavior both concerning knowledge, skills, and attitudes.

Methodology

The research is conducted atState Senior High School 1 Kampar Kiri in the 2nd semester for 3 months from March to May 2015 with the subject of the research is the students of X1amounted to 32 people (18 females and 14 males). Research conducted is a classroom action research with the implementation of two cycles.

The parameter in this research is the result of student's learning analyzed from absorption and individual learning completeness.

The instruments used in the study of learning tools that include the syllabus compiled based on Core Competencies and Basic Competencies in the curriculum 2013. Learning Implementation Plan (RPP) is a reference implementation of learning, Student Worksheet (LKS) contains the tasks and procedures that must be followed by students during the learning process, evaluation tools in the form of post-test questions that will be given at the end of each meeting as well as daily test questions. Media in the form of tools, objects or specimens that can help students find the concept of the lessons learned.

The data in the study is obtained from post-test results and daily test scores. Students declared complete if the value obtained to meet the Minimum Completeness Criteria (KKM) which has been established by the subject teacher that is 75.

To find out the improvement of students' learning outcomes of grade X1State Senior High School 1 Kampar Kiriin academic year 2014-2015 through the implementation of the Think-Talk-Write strategy, measurement and analysis of students' learning outcomes taken at the end of each encounter and daily test at the end of the cycle.

Based on the data, students' absorption on the subject of animalia with the implementation of Think-Talk-Write strategy can be seen in the table.

No	Interval	Kategori	Post tes pertemuan ke-			UH
			1	2	3	
			N (%)	N (%)	N (%)	
1	80-100	Baik sekali	4 (13,33)	3 (11,54)	8 (25,81)	6 (18,75)
2	70-79	Baik	2 (6,67)	2 (7,69)	10 (31,26)	6 (18,75)
3	60-69	Cukup	5 (16,67)	3 (11,54)	5 (16,13)	11 (34,38)
4	0-59	Kurang	19 (63,33)	18 (69,23)	8 (25,81)	9 (28,13)
Jumlah			30	26	31	32
Rata-rata			44,33	55,54	66,29	65,16
Kategori			Kurang	Kurang	Cukup	Cukup

Tabel 1. Students' absorption in first cycle

Based on the table, it was known that the absorption of students in the first post test was still very far from the expected, where almost 80% of the total students who scored under the predefined Minimum Completeness Criteria, as well as the daily test value of only about 20% of the total students who had the

No	Interval	Kategori	Post tes pertemuan ke-		UH
			1	2	
			N (%)	N (%)	
1	80-100	Baik sekali	10 (32,26)	5 (16,67)	8 (25,81)
2	70-79	Baik	10 (32,26)	11 (36,67)	13 (41,94)
3	60-69	Cukup	9 (29,03)	8 (26,67)	7 (22,58)
4	0-59	Kurang	4 (12,90)	6 (20)	3 (9,68)
Jumlah			31	30	31
Rata-rata			71,29	70,27	70,16
Kategori			Kurang	Kurang	Cukup

score above the Minimum Completeness Criteria.

The causes of the condition were the lack of students'readinessto follow different learning process and also posttest activities conducted, although it has been socialized several days before the implementation of the learning process.Another thing that is also the cause is still less active students during the learning process, whether in the observation activities, discussions or in answering questions in the student worksheet. The condition that occurred in the first cycle is very contrary to the opinion of Mahmudi (2010) who says that in the learning process of students who must get the emphasis, students who must actively develop knowledge rather than teachers or others, students who must be responsible for the results of learning.

The fact that students were not active and not serious in learning certainly affected the ability of students to understand the lesson in other words the ability of students who were also the result of learning. Students still needed to adapt to the learning process using Think-Talk-Write strategy in the hope thatstudents' absorption would be better in thenext cycle. Another factor that is also needed is the effort of teachers to provide motivationand encouragement so that students feel challenged to be more active in learning activities. The teacher's findings during the learning process in cycle 1 became the evaluation material for improvement of cycle 2 implementation.

Table 2. Students' absorption in second cycle

The table can illustrate that the implementation of the learning process in cycle 2 is much better than the 1st cycle marked by the increasing number of students who score above the established KKM. Trianto (2009) says that theme selection can help students become more confident and motivated in learning if they successfully apply what they have learned. This is evidenced by the existence of material that is more easily observed in the environment can increase students' absorption.

Slameto (2003) also said that with the significance of the perceived learning of students then the material learned will be long in the remember so that will improve learning outcomes. Students already understand how to learn with the implementation of the strategy of think-talk-write so that students/students can be active in learning activities. Students are better able to observe the environment, the students are better understood to classify the existing object and some students have been able to deduce the lesson material that has been learned and apply it in the day-to-day life.

In addition to absorption, students' learning outcomes could also be seen from the mastery of learning students themselves. Students' learning completeness individually were taken from daily test value done onthe each end of cycle. The result of students' mastery analysis after applying of think-talk-write strategy in

class X_1 of State Senior High School 1 Kampar Kiri 2014/2015 could be seen in table.

Tabel 3. The result of students' mastery analysis after applying of *think-talk-write*

No	Kategori	Siklus 1	Siklus 2
		Jumlah siswa (%)	Jumlah siswa (%)
1	Tuntas	24 (75)	28 (90,32)
2	Tidak tuntas	8 (25)	3 (9,68)
	Jumlah	32 (100)	31 (96,88)

From the table above, it can be seen that there are still 25% of students who are not complete in cycle 1, whereas in cycle 2 students who are not complete only about 10%.

The number of students who were not complete in cycle 1 because students were still awkward with the way the learning applied, as a result students were less serious in learning, activity and ability of students was still lacking. Slameto (2003) says that the factors that influence students' learning outcomes were internal and external factors.

The problems found in cycle 1 made by the researcher along with the teachers in thefield of study as a reflection of the learning process. Improvements made more emphasis on the liveliness of students during the learning process. With the reflection is done then got the result of learning mastery that much better in cycle 2 that is more than 90% students that expressed complete. This condition was because students were able to optimize their own ability in learning process.

Conclusion

The implementation of the think-talk-write strategy could improve the students' learning outcomes which could be seen from the increase of absorption from cycle 1 to cycle 2 as well as the individual learning completeness of students which also increases from 75% of students declared in cycle 1 to 90% in cycle 2. It was suggested to the next researcher to see the effect of applying the think-talk-write strategy on students' critical thinking ability.

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