

**THE EFFECTS OF COOPERATIVE LEARNING “SAVI”  
(SOMATIS, AUDITORI, VISUAL AND INTELEKTUAL)  
APPROACH TO CONSCIOUSNESS METACOGNITIVE AND  
LEARNING ECOSYSTEM AT SENIOR HIGH SCHOOL 1  
TANETE RILAU**

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The low quality of learning at Senior High School 1 Tanete Rilau caused by external and internal factors. External factors include the teachers who are still using conventional learning models, so that the learning process has not yet developed to be creative power of students that refer to learning situations that are rigid and monotonous. The objective of this rescard is determine the effect of cooperative learning by using “SAVI” appreach against metacognitive awareness of students of Senior High School 1 Tanete Rilau and to determine the effect of cooperative learning with “SAVI” approach to the learning outcomes of students of Senior High School 1 Tanete Rilau. This research is an experiment; two samples treated with different learning model and see its effect on student learning outcomes. The design was pretest-posttest control group design, with a total sample of 30 people for the control group and 30 to the experimental group. Data collected by using a questionnaire, description test to measure metacognitive skills (using rubrics) and student learning outcomes. Data were analyzed by descriptive and inferential (Anacova statistics and ANOVA with SPSS 16.0 for Windows, performed with a significance level of 5%).

**Keywords:** Cooperative learning “SAVI”, Metacognitive, Learning Outcomes

### **Introduction**

In Act 20 of 2003 Education is a conscious and deliberate effort to create an atmosphere of learning and the learning process so that learners are actively developing their potential define as to have the spiritual power, religious, self-control, personality, intelligence, noble character, and skills needed by him, society, nation, and state.

The efforts to improve the quality of education in schools continues to be done, ranging from procurement of textbooks, curriculum improvement, upgrading teachers field of study, the addition of facilities and infrastructure for teaching and learning activities at the same time strengthening the teaching and learning process. In strengthening the learning process, the teacher is the one resource that has an important role in improving the quality of education.

Syah (1999: 125) says that learning approaches and strategies or tips implement approaches and methods of learning, including factors, also determine the level of student success. Therefore, to prepare or deliver the subject matter to the students should be consider several factors, such as: student, classroom, learning methods,

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or learning strategies, and the material itself. Moreover teachers are expected to use appropriate methods so that students interested in biology. One method used to overcome the weaknesses and obstacles at every stage of the learning biology can apply this learning approach “SAVI”. Because learning can be optimal if the fourth element of “SAVI” ie Somatic, Auditory, Visual, and there is in any event Intellectual learning. Application of “SAVI” approach is a learning approach that seeks to involve as many senses of the body.

The objectives to be of this rescard achieved in this research are to find out: (1) influence of cooperative learning with SAVI approach towards metacognitive awareness of students of Senior High School 1 Tanete Rilau. (2) influence of cooperative learning with SAVI approach towards learning outcomes of students of Senior High School 1 Tanete Rilau.

### Research Method

This research is using quasi-experimental research that aims to determine the effect of cooperative learning with Somatic approaches, Audio, Visual, Property “SAVI” appraache against metacognitive awareness, and student learning outcomes.

Research design used in this study is a pretest-posttest control group design, which involved two groups: one as an experimental group and one as a control group. The experimental group was applied using SAVI approach and the control group using a conventional approach.

TABLE 1: MODEL DESIGN RESEARCH

<i>Group</i>	<i>Preetest</i>	<i>Treatment</i>	<i>Posttest</i>
AB	O <sub>1</sub> O <sub>3</sub>	X <sub>1</sub> X <sub>2</sub>	O <sub>2</sub> O <sub>4</sub>

Specification:

A : Group / class experiment  
 B : Group / class control  
 X<sub>1</sub> : cooperative learning “SAVI” approach  
 X<sub>2</sub> : Conventional learning  
 O<sub>1</sub> & O<sub>3</sub> : Pretest for the experimental class and control class  
 O<sub>2</sub> & O<sub>4</sub> : Posttest for the experimental class and control class

The population in this research were all students of class X of Senior High School 1 Tanete Rilau, school year 2011-2012 consisting of five class with a total of 245 students. The sample in this study were randomized (random sampling), so that elected two classes of five classes, namely classes and class X<sub>3</sub> and X<sub>4</sub>B with each number as many as 30 students.

Data collection technique used pretest and posttest. Pretest was conducted through tests students’ knowledge while posttest done through the final achievement

test. The data were analyzed in two ways, namely Statistical analysis Descriptive and inferential statistical analysis performed by using t-test. Value of students categorized according to standards set by the Ministry of Education and Culture in Trysdiyanto (2009: 155), namely:

TABLE 2: CATEGORIZATION STUDENT RESULTS

Percentage	Score	Category
85%-100%	85 – 100	Very High
65% -84%	65 – 84	High
55% -64%	55 – 64	Moderrate
35% -44%	35 – 44	Low
0% -34%	0 – 34	Very Low

Sourec: Arikunto (2010)

**Result Research**

Learning outcomes using cooperative learning “SAVI” approach modelwith the group using conventional learning model can be seen in Table 3 below.

TABLE 3: DISTRIBUTION OF SCORES PRETEST CLASS X SENIOR HIGH SCHOOL 1 TANETE RILAU BARRU

Score	Total Students				
	Class X <sub>4</sub> for cooperative learning “SAVI” approach		Class X <sub>3</sub> for Conventional learning		Category
	Pretest	%	Pretest	%	
0 – 34	19	63,33%	22	73,33%	Very High
35 – 54	11	36,67%	8	26,67%	Low
55 – 64	0	0%	0	0%	Very High
65 – 84	0	0%	0	0%	High
85 – 100	0	0%	0	0%	Very High
Total	30	100%	30	100	

In the table above can be seen that:

1. Control the initial concept, students who plan taught by applying cooperative learning model that uses the SAVI approach contained 63.33% of students obtained a score in the very low category, and 36.67% obtained a score in the low category.
2. Control the initial concept, students who plan taught by applying conventional learning models are 73.33% gain in the category of very low score, 66.67% of students obtained a score in the category of well developed, and 26.67% obtained a score in the low category

TABLE 4: THE AVERAGE SCORE OVERALL LEARNING OUTCOMES OF STUDENTS WHO PLAN GROUPS TAUGHT BY COOPERATIVE LEARNING MODEL OF "SAVI" APPROACH AND CONVENTIONAL LEARNING MODEL

<i>Learning Group</i>	<i>Pretest</i>	<i>Category</i>
Cooperative group "SAVI" approach	34.55	Very low
Conventional group	33.11	Very low

### ***Outcomes Learning (treatment)***

The total of students with learning outcomes percentage score obtained in the posttest by group taught using cooperative learning model "SAVI" approach with the group using conventional learning model can be seen in Table 5 below.

TABLE 5: DISTRIBUTION OF SCORES POSTTEST CLASS X SENIOR HIGH SCHOOL 1 TANETE RILAU BARRU REGENCY USING COOPERATIVE LEARNING BY SAVI APPROACH AND CONVENTIONAL LEARNING

<i>Score</i>	<i>Total Students</i>				<i>Category</i>
	<i>Cooperative Learning approaches "SAVI"</i>		<i>Conventional Learning</i>		
	<i>Posttest</i>	<i>%</i>	<i>Posttest</i>	<i>%</i>	
0 – 34	0	0%	0	0%	Very Low
35 – 54	0	0%	0	0%	Low
55 – 64	1	3,33%	6	20%	Moderrate
65 – 84	28	93,33%	24	80%	High
85 – 100	1	3,33%	0	0%	Very High
Total	30	100%	30	100	

In the table 5 above can be seen that:

1. Outcomes learning of students are taught to apply the cooperative learning model that uses the SAVI approach contained 3.33% of students obtained a score in the category, 93.33% of students obtained a score in the high category and a 3.33% gain in the category of very high scores ,
2. Outcomes learning of students who are taught by applying conventional learning models are 20% of students obtained a score in the moderate category and 80% earn high scores in the category.

TABLE 6: THE AVERAGE SCORE OF THE OVERALL OUTCOMES AFTER LEARNING OF THE GROUP COOPERATIVE LEARNING MODEL "SAVI" APPROACH AND CONVENTIONAL LEARNING MODEL

<i>Learning Group</i>	<i>Posttest</i>	<i>Category</i>
Cooperative group "SAVI" approach	74.33	High
Conventional group	70,33	High

TABLE 7: THE AVERAGE SCORE OF COGNITIVE LEARNING OUTCOMES WHOLE GROUP OF STUDENTS THAT LEARNED THE COOPERATIVE MODEL “SAVI” APPROACH AND CLASS CONTROL (CONVENTIONAL CLASS)

<i>Learning Model</i>	<i>Pretest</i>	<i>Category</i>	<i>Posttest</i>	<i>Category</i>
Cooperative approaches “SAVI”	34.55	Low	74.33	High
Conventional	33.11	Low	70,33	High

Based on the table 7 above shows that after the learning process, the average scores on the cognitive learning approach kooperativ “SAVI” group increased from an average score of 34.55 in the low category to 74.33 in the high category and an increase of approximately 115.14%. Whereas in conventional study group increased from an average score of 33.11 in the category lower to 70.33 in the high category and an increase of approximately 112.41%.

**Metacognitive Awareness**

Here is a table that provides an overview of the number of students with metacognitive awareness percentage score obtained in the posttest by group taught using cooperative learning model “SAVI” approach and conventional learning model.

TABLE 8: DISTRIBUTION OF SCORES METACOGNITIVE AWARENESS CLASS X SENIOR HIGH SCHOOL 1 TANETE RILAU BARRU TAUGHT USING COOPERATIVE LEARNING MODEL WITH “SAVI” APPROACH AND CONVENTIONAL LEARNING

<i>Score</i>	<i>Cooperative Learning with SAVI Approach</i>		<i>Conventional Total Student</i>		<i>Category</i>
		<i>%</i>		<i>%</i>	
0-20					Still Very Risk
21-40					A Not So Flourishing
41-60					Start Developing
61-80	14	53,33	13	43,33	Developing Good
81-100	16	46,67	17	56,67	Developing Very Good
Total	30	100	30	100	

Furthermore, the following table provides an overview average score of metacognitive awareness of the whole student group cooperative model “SAVI” approach and conventional models are shown in Table 9 below:

TABLE 9: THE MEAN SCORE OF METACOGNITIVE AWARENESS OF THE ENTIRE GROUP OF STUDENTS TAUGHT BY COOPERATIVE LEARNING MODEL “SAVI” APPROACH AND CONVENTIONAL LEARNING MODEL

<i>Learning Group</i>	<i>Average</i>	<i>Category</i>
Cooperative group “SAVI” approach	80.91	Developing very Good
Conventional learning group	84,01	Developing very Good

The table above that average of cooperative group of save and the anvational learning group in Chaterory Developly very good by average number of 80.91 and 80.01 respectively.

### **Discussion**

Based on the results of research on learning outcomes, suggests that there are differences in average scores on a group cooperative learning outcomes “SAVI” approach with conventional group even though both are at the high category. Results of t-test analysis, namely p-alpha level less than 0.05 ( $p < 0.05$ ) with 0,028 sig so it is concluded that there are significant differences on learning outcomes in students taught using cooperative model “SAVI” approach with students taught using conventional models.

Group cooperative model “SAVI” approach still 1 of the 30 students who did not reach the minimum completeness or around 3.33%, while the completion reaches 96.67%. In the group of conventional learning model shows 6 out of 30 students who did not reach the minimum completeness or approximately 20% while achieving 80% complete. From the explanation above shows that students who are taught in classical learning model koopertatif “SAVI” approach has been completed (ie the percentage has reached 85%), while students taught by conventional models yet achieve mastery in the classical, because it is still below 85%.

Based on t-test results and the average value obtained in the post-test and the percentage increase in the value of the pre-test to post-test for both classes can be explained that the cooperative model “SAVI” approach has a higher power to improve learning outcomes compared to conventional models.

Where data were obtained before the average value test results for 5.61 but after using “SAVI” approach media test results of 7.60 which means an increase. So also with the results of mastery learning on grade control (using media konveksional) only 51.22% who achieve mastery learning while for classroom use “SAVI” approach amounted to 75.82% who achieve mastery learning.

Based on the results of research on metacognitive awareness, from the data obtained suggests that the average score of metacognitive awareness in the group cooperative model in the category “SAVI” approach developed very well, and the group of conventional model is also in the category is growing very well.

The results of t-test analysis showed that there was no significant difference between metacognitive awareness in the group of students taught by cooperative learning with SAVI approaches and group students taught by conventional learning.

Based on the research results Warouw (2009) in Bahri (2010), which suggests that the interaction of learning strategies and academic ability of students will affect the students' metacognitive awareness. Things to cause awareness of students' metacognition is not closely related to cognitive learning outcomes through the implementation of the cooperative model "SAVI" approach to conventional models are:

Based on observations while students fill out a questionnaire MAI, they fill out the questionnaire very fast and in a hurry, it looks like students do not think about the statements in the questionnaire properly and earnestly before determining the choice and appropriate answers to her true self. Though the statements contained in the questionnaire MAI requires adequate analytical thinking in order to understand the statements in depth in this case can not be responded hastily and carelessly.

The similarity of meaning in sentence statement contained in the questionnaire MAI. This causes the students to experience confusion or may be difficult to synchronize between the statements in the questionnaire MAI with their actual circumstances. The similarity of meaning of these statements can certainly have an impact on the determination that not careful choice that is not in accordance with the situation himself.

Students generally want to look better, so in answer to the statements in the MAI questionnaire is not in accordance with the situation of them.

### **Conclusion**

Based on the results of data analysis and discussion, can be summarized as follows: There is no significant difference between students' metacognitive awareness taught using cooperative learning model "SAVI" approach with students taught by using conventional models. Moreover, there is a significant difference to the learning outcomes among students taught using cooperative learning model "SAVI" approach with students taught by using conventional models.

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