Implementation of The Scientific Approach on Social Studies Learning Based on Local Wisdom Trough Advanced Organizer Learning Models of The Students of Junior High Schools

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Implementation of the scientific approach on social studies learning based on local wisdom through advanced organizer learning models of the students of junior high schools

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Abstract: This study aims to determine the implementation of the Scientific approach in Social Science Based Local Wisdom Learning through the Advance Organizer Learning Model. The implementation is expected to be able to improve student learning outcomes and activeness in the learning process. This research method is a research development carried out with reference to the Plomp development procedure. The Plomp model is seen as more flexible and flexible because at each step it contains development activities that can be adapted to the characteristics of the research. Stages include: (1) planning, (2) implementation of actions, (3) observation and (4) reflection in the form of evaluation (semi-summative evaluation). Scientific approach to social science learning models based on local wisdom through an advance organizer can improve student learning outcomes and learning activities.

1. Introduction

Improving the quality of education is a process that is carried out dynamically and continuously in order to improve the quality of education and various factors associated with it, in an effort to achieve educational goals effectively and efficiently. The program to improve the quality of education is the achievement of substantive national education goals, which are manifested in intact competencies in students.

The importance of cultural education based on the value of local wisdom in Social Studies Learning is based on the assumption that: (1) Cultural heritage is a component of education that can foster a sense of belonging and respect for its own cultural history; (2) Character education values as a fortress in the face of uncontrolled global cultural transformation, and (3) Noble character values play a role in shaping student identity, national identity, and critical thinking of the nation [1].

The scientific approach to scientific steps in learning in the 2013 curriculum develops learning experiences that provide opportunities for students to master the competencies needed for life in the present and future. This curriculum is structured with the intention to develop the potential of students to be the ability to think reflective in solving social problems in society by perfecting the mindset of passive learning into critical learning.

According to the 2013 Curriculum demands, especially social studies teachers of Junior High Schools in Madiun have developed conventional learning approaches to constructivist

learning but the results are still dominant in achieving cognitive outcomes. In the learning process, the benefits of local wisdom in the student environment have not been utilized.

In an earlier study conducted by [2] this improvement happened due to some reasons namely:1) The teaching is more fun when it is done through documentary movie as the media, 2) the social condition analysis activities are able to motivate students to think more critically about the social condition. [3] resulted in the study that the local wisdom-based learning model developed in Bengawan Solo area can increase student learning outcomes and can improve student activeness in learning.

Mukminan, Endang, Mulyani, Nursa'ban, & Supardi (2014) with the many learning models / approaches that are assumed to be relevant for grounding social science in order to strengthen the implementation of the national curriculum, the most important thing is "the extent to which the learning model is able to facilitate teachers and lecturers and students gain learning experiences that reflect the mastery of competencies demanded [4].

In order for students to be able to understand the IPS concept better, it is necessary to have a systematic learning plan about how to manage meaningful learning. One of the learning models that can be used is the Advanced Organizer learning model developed by Ausubel. Advance Organizer has interactive characteristics, use of examples, presentation of material deductively and sequentially and linking new information with concepts that exist in the cognitive structure of students. This model is designed to develop the ability to obtain information by forming and connecting with new knowledge on existing cognitive structures and an interest in investigating further and familiarizing students with appropriate and meaningful thinking.

2. Methods

This research method is a development research which is carried out by referring to Plomp development procedure. Plomp model is considered more flexible and flexible because at each step contains development. Implementation implemented is expected to improve the ability of critical thinking for students. Research development is one type of research that is widely developed [5–7]. Research development is one type of research that can be a liaison or breaker gap between basic research with applied research [5,8].

Stages include: (1) planning, (2) action implementation, (3) Observation and (4) Reflection in the form of assessment (semi-summative evaluation). The subjects of this study were students of 7th grade academic year 2017/2018.

3. Result and Discussion

a. Low School Category

1) Learning Outcomes

From the results of the calculation of Paired Samples t-test using SPSS obtained the following results:

Table 1. Descriptive Statistics of School Mean Low Categories

Paired Samples Statistics

		Mean	N	Std. Dev.	Std.Error Mean
Pair 1	Low pre-control	61,09	32	8,204	1,450
	Low post-control	70,47	32	7,866	1,390
Pair 2	Low pre-experiment	65,78	32	9,255	1,636
	Low post-experiment	74,53	32	8,068	1,426

The experimental class was given social studies learning with an advanced organizer model that accommodated the values of local wisdom. The test was conducted to determine student learning outcomes seen by the written test in the form of multiple choice. The final result of learning between the control class and the experimental class is

superior to the experimental class which is 65.16 in the control class while the experimental class is 72.03.

To find out the difference in student learning outcomes using the advanced organizer learning model paired samples t test analysis was used. The results of calculations using SPSS obtained the following results:

Table 2. Paired Samples Tests for School Learning Outcomes in the Low Category

	Paired Differences							
				95% Confidence Interval of the Difference				Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	
Pre- Pos- low control	-9,375	9,817	1,735	-12,914	-5,836	-5,402	31	,000
Pre - Pos-low experiment	-8,750	6,599	1,167	-11,129	-6,371	-7,501	31	,000

Based on the output above, the value of sig. (2-tailed) of 0,000 <0.05. This means that there are differences in student learning outcomes of students who use the advance organizer learning model between the control group and the experimental group.

2) Observation Results Student Learning Activities

The following is the recapitulation of the learning activities of the control class and experimental class students.

Table 3. Recapitulation of Student Learning Activities in Schools Low Category

GROUP	Sum of Student					
	H	%	M	%	L	%
Experiment	14	43,75	17	53,13	1	3,13
Control	6	18,75	21	65,62	5	15,63%

Student learning activities in the experimental class were higher than the control class, namely 14 students out of 32 students (43.75%). Whereas in the activity control class, most of the students were quite active, namely 21 students from 32 students (65.62%). This means that giving treatment to the experimental class that is the development of social science learning models based on local wisdom with an Advance organizer can increase student learning activities.

b. High school category

1) Learning Outcomes

From the results of the calculation of Paired Samples t-test using SPSS obtained the following results:

Table 4. Descriptive Statistics of High School Mean Categories

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre- high control	67,50	26	7,382	1,448
	Pos- high control	73,85	26	6,051	1,187
Pair 2	Pre- high experiment	69,62	26	8,237	1,615
	Pos- high experiment	79,23	26	9,132	1,791

The learning between the control class and the experimental class is more the experimental class that is 73.85, while the control class is the experimental class being 79.23. The experimental class was given social studies learning with an advanced organizer model that accommodated the values of local wisdom. The test was conducted to determine student learning outcomes seen by the written test in the form of multiple choice.

To find out the difference in student learning outcomes using the advanced organizer learning model paired samples t test analysis was used. The results of calculations using SPSS obtained the following results:

Table 5. Paired Samples for High School Test Categories

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pre-Pos- high control	-6,346	3,622	,710	-7,809	-4,883	-8,935	25	,000
Pre-Pos- high experiment	-9,615	5,463	1,071	-11,822	-7,409	-8,974	25	,000

Based on the results of the output in table 4.53 the significance (sig.) Is 0,000 <0.005. This means that there are differences in student learning outcomes that use the advanced organizer learning model in the control class and the experimental class.

2) Observation Results of Student Activities

The following is a recapitulation of observations of student learning activities in high category schools in the control class and experimental class as presented in the table below.

Table 6. Recapitulation of High School Student Learning Activities

GROUP	Sum of Students					
	H	%	M	%	L	%
Experiment	23	88,46	3	11,54	0	0
Control	15	57,69	8	30,77	3	11,54

Student learning activities in the experimental class were higher than the control class, namely 14 students out of 32 students (43.75%). Whereas in the activity control class, most of the students were quite active, namely 21 students from 32 students (65.62%). This means that giving treatment to the experimental class that is the development of social science learning models based on local wisdom with an Advance organizer can increase student learning activities.

c. High school category

1) Learning Outcomes

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Experiment	23	88,46	3	11,54	0	0
Control	15	57,69	8	30,77	3	11,54

Student learning activities in the experimental class were higher than the control class, namely 23 students out of 26 students (88.46%). While in the activity control class the students were also active, namely 15 students out of 26 students (57.69%), but their activity was still lower than the experimental class. This means that giving treatment to the experimental class that is the development of social science learning models based on local wisdom with an Advance organizer can increase student learning activities.

4. Conclusion

Based on the results of the research that has been done and the research findings achieved, it can be concluded that the "Scientific Approach to the social science learning model based on local wisdom through an advance organizer is able to improve the learning outcomes and learning activities of junior high school students in Madiun City".

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