

## Cognitive Moral Based on Civics Education Material in Elementary School

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### Article Info

#### Article history:

Received Jan 12, 2018

Revised Apr 22, 2018

Accepted May 06, 2018

#### Keywords:

Civic education

Cognitive moral

Elementary school

Moral judgement

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### ABSTRACT

This study aims to determine the effectiveness of the use of cognitive moral based on civics education teaching material in improving the moral judgement competence of the fifth grade elementary school students. This study is a quasi experiment using pretest-posttest control group design. The subjects were 59 students of the fifth grade elementary school consisting of 31 students of experimental class and 28 students of control class. The treatment of the experimental class used cognitive moral based on civics education teaching material for about 8 weeks. Learning process in the control class is on the same material and time intensity, but they were not given a treatment. Technique of collecting data used is test. The test instrument consists of 25 multiple choice questions dominated by a moral dilemma. The result of independent sample t test shows that t value is higher than t table ( $2.161 > 1.671$ ). The results show that cognitive based civics education teaching material is effective in improving the moral judgement competence of the fifth grade elementary school students. The increasing moral judgement competence in the experimental class based on the acquisition score N-Gain 0.36 is the medium category

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## 1. INTRODUCTION

Civics education is a subject that aims to shape the nation's personality in accordance with the order of moral values. Juridicially, this subject is intended to shape learners into human beings who have a sense of nationality, love their country and behave in accordance with the moral of Pancasila [1]. At the elementary level, the role of civics education as a vehicle for moral education is a very fundamental thing. Students at elementary school are at a critical phase in shaping moral behavior, so it needs special attention from those closest to them [2].

The role of civics education as a vehicle for moral education in the school environment is expected to be the key to the eloquence of moral learning in formal educational institutions. Civics education as one of compulsory contents in all levels of education has a mission to foster, uphold, and develop a set of moral values [3]. Therefore, learning about moral values conducted in the learning activities at schools should be implemented in the content of this subject matter that in fact has become one of the goals of Civics education.

Based on the empirical facts of previous research results, the implementation of civics education learning at schools tends to be boring because it uses lecturing teaching method. The tedious learning environment of civics education can effect the low absorption of students on subject matter and basic competencies that have been determined [4]. In the wider field, the contents of the current school curriculum

have not yet represented values and moral education [5]. Based on the results of the studies that have been done before, it can be interpreted that today, the development of teaching materials that support moral learning is needed.

As one of the development efforts, the cognitive moral approach becomes one of the solutions as a framework for developing teaching materials that support moral education in formal educational institutions. The cognitive moral approach is the way of moral-oriented cognitive development [4]. Historically, the cognitive moral approach is one of the moral learning approaches developed by one of the figures named L. Kohlberg. This approach is the result of the theories improvement about the earlier moral development that has been initiated by Jean Piaget and Emile Durkheim.

In the learning activities, the implementation of cognitive moral approach is done through the development of moral dilemma stories on teaching materials. Moral education at schools is generally done through the discussion of dilemmas or aspects of thinking [6]. The dilemma is intended to train students to make the best decisions with all the consequences, so occasionally the moral dilemma seems between the devil and the deep sea. Therefore, in the development of civics education teaching materials using a framework of a cognitive moral approach, the dilemma story is at the core of the development of teaching materials. Through this story, the level of students' moral development is expected to grow at a higher level.

Through dilemma stories in a cognitive moral approach, children will not be indoctrinated to simply say "right" or "wrong" but they will actually think deeply according to the situation at hand [7]. The thought process is expected to stimulate cognitive ability so that the stage of moral judgement development grow to a higher level. The learning of Kohlberg's moral dilemma is capable to create intellectual taxonomy (reasoning) deals in finding a solution to the problems contained in the given stimulus. That stimulus is then directed to cognitive dissonance in which a strong and powerful knowledge structure that is able to alter a rational mindset [8].

In the broader context, the development of high moral value is also expected to contribute a better act of morality as well. The influence of the cognitive aspects on morality action is supported by the empirical facts of the research that have been done before. Moral behavior is essentially a representation of cognitive competence or in this study is referred to as moral judgement [9]. A moral action is a behavior or action that is done by considering the moral aspect of knowledge and moral sense that has consciously. Those having a good moral action have moral knowledge, there is a desire to do better, and finally be realized into an action [10]. Therefore, the high knowledge and competence of moral value are very influential on someone's moral action.

In line with learning process, the successful implementation of Kohlberg's cognitive moral approach in learning activities has also been proven by the empirical facts of the Akron University. The results show that the implementation of Kohlberg principles applied in classroom learning activities has proven to be positive experiences for all students. This research has also renewed the spirit of teachers to conduct moral education based on unique stages in Kohlberg's moral development [11].

Based on background description above, the use of civics education teaching materials based on cognitive moral is expected to improve moral judgement competence. The formulation of the problem in this research is "how is the effectiveness of cognitive moral-based on civics education teaching material to increase the competence of moral judgement in elementary school?". The purpose of this study is to determine the effectiveness of cognitive moral-based on civics education teaching material in improving moral judgement competence in the fifth grade elementary school.

## 2. RESEARCH METHOD

This study is an experimental quasi research using a pretest-posttest control group design [12]. The design of this study is to compare the experimental group given treatment using the cognitive moral-based on civics education teaching material and control group using the commonly used teaching materials that being taught. Before conducting the treatment, all subjects were given pretest, then after treatment was given posttest. Treatment is done by implementing cognitive moral-based on civics education teaching material at the fifth grade elementary school students. The design of this study can be observed in Table 1.

Table 1. Research Design

Group		Treatment		
		O <sub>1</sub>	X <sub>1</sub>	O <sub>2</sub>
Experiment (N=28)		O <sub>1</sub>	X <sub>1</sub>	O <sub>2</sub>
Control (N=31)		O <sub>1</sub>	X <sub>2</sub>	O <sub>2</sub>
Description	O <sub>1</sub>	: Pretest		
	O <sub>2</sub>	: Posttest		
	X <sub>1</sub>	: Using cognitive moral based on civics education teaching material		
	X <sub>2</sub>	: Using books that have been owned by student		

Based on Table 1, the subjects consisted of 28 students of the experimental group and 31 control group students. Both groups came from two elementary schools in Salatiga. The first step is to provide a pretest question of the control group and the experimental group. The pretest issue consists of 25 multiple choice questions done over 40 minutes. After being given pretest, the next step is to provide treatment using cognitive moral-based on civics education teaching material at experimental group. The control group conducted learning activities using the teaching materials used without treatment.

The material taught in both groups is the same namely "The Application of Pancasila Values in Everyday Life" & "Rights, Obligations, and Responsibilities of Citizens". The learning process in both groups was conducted for once a week, with each meeting time was 70 minutes. Total implementation of learning is 8 meetings. The next step is to provide posttest questions on the experimental group and the control group. Posttest of 25 multiple choice questions was done for 40 minutes. The entire series of research activities were conducted over 10 weeks with a summary of the research activities can be shown in Table 2.

Table 2. Summary of Research Activity

Week	Research Activity/ Teach Material
1	Pretest
2-5	"The Application of Pancasila Values in Everyday Life"
6-9	"Rights, Obligations, and Responsibilities of Citizens"
10	Posttest

Table 2. Research activities in the first week were to provide a pretest problem in the experimental and control groups. The second week is to provide treatment by implementing the cognitive moral-based on civics education teaching material for 8 weeks to the experimental group. The control group used the current teaching materials. The second to fifth learning process was on the material "The Application of Pancasila Values in Everyday Life". In the sixth to the ninth week, the material was about "Rights, Obligations, and Responsibilities of Citizens". In the tenth week, the experimental group and the control group were given a posttest problem.

The instruments of pretest and posttest in this research are dominated by moral dilemma. The moral dilemma is a matter that demands critical thinking skills in solving moral problems in everyday life. The development of the instrument is adjusted to the subject matter and competence of the fifth grade. To know the effectiveness of cognitive moral-based on civics education teaching material, there are two analysis steps used in this research. The first step is to calculate the significance of the mean difference of posttest result of the experimental group and the control group. This test is done by using independent sample t-test. The purpose of this test is to know the difference of average between groups given treatment and not given treatment. The process of calculating independent sample t-test is done using SPSS (Statistical Product and Service Solutions) software. Treatment effect is if the value of t-obtained greater than t-table.

Once it is known that the treatment given is significantly effective against the increase of moral judgement competence, then the next step is to measure how much the improvement happened between before and after treatment. The improvement result is calculated using the Normalized Gain (N-Gain) formula as follows [13].

$$g = \frac{\text{posttest score} - \text{pretest score}}{\text{max score} - \text{pretest score}} \quad (1)$$

The criteria used in the N-Gain count results are guided by the assessment standards described in Table 3 [14].

Table 3. N-Gain Score Criteria

N-Gain	Kategori
$g < 0,3$	Low
$0,3 \leq g < 0,7$	Medium
$g \geq 0,7$	High

Cognitive moral-based on civics education teaching material are stated to increase moral judgement competence if N-Gain score is at least medium category. Tables and Figures are presented center, as shown below and cited in the manuscript.

### 3. RESULTS AND ANALYSIS

Firstly, research activities conducted by giving pretest problem to know the initial condition of student. However, first of all the pretest and posttest questions have been validated by experts in their field and tested for their validity and reliability. All the items used have met the minimum standard of validity test of factorial analysis that is more than 0.3. Reliability question is 0.85 which means very reliable.

Based on the pretest result score calculated using SPSS, it is known that the experimental and control groups are from normal distributed samples and both have the same or homogeneous varians. The result of significance test of control group normality is 0.107 and the experimental group is 0.20 , it means that both groups are normal distributed since the result of the count is greater than the alpha value ( $>0.05$ ). The result of homogeneity test is 0.993 significance level which means that both groups have the same variant because the test result is bigger than alpha (0.05).

After the results of pretest analysis have been eligible, the researcher conducted treatment in accordance with the research design. To measure the success of the treatment, the effectiveness test was done using independent sample t-test on posttest result of experimental group and control group. The results of the effectiveness test can be observed in Table 4.

Table 4. Effectiveness Test

Control Group	Experiment Group	$t_{\text{scores}}$	$t_{\text{table}}$	Sign.	Conclusion
69.93	75.87	2.161	1.671	0.035	Teaching material is effective

Based on Table 4, the mean posttest of the experimental group is 75.87 while the control group is 69.93. The mean score of the experimental group is higher than the control group. Based on the calculation using independent sample t-test, t-obtained is 2,161 which is bigger than t-table that is 1.671 ( $2.161 > 1.671$ ). When viewed from the significance of t-test results, the significance value is lower than the alpha value ( $0.0035 < 0.05$ ). The t-test results indicate that there is a significant difference between the experimental group and the control group. To find out how much the difference of improvement in both groups, N-Gain test was done. The result of N-gain test in both groups can be observed in Table 5.

Table 5. Increase Analysis (N-Gain)

Mean	Experiment Group	Control Group
Pretest	62.26	61.72
Posttest	75.87	69.93
N-Gain scores	0.36	0.22
N-Gain category	Medium	Low

Table 5 shows that the experimental N-Gain score of the experimental treatment given by the teaching materials using the cognitive-based Civics education teaching materials is higher than the N-Gain score of the control group ( $0.36 > 0.22$ ). Based on the N-Gain score criteria, the improvement of the moral judgement competence in the experimental class is at medium category. In the control group the improvement occurred was at low category. The result of N-Gain score has answered research problem about the effectiveness of cognitive moral-based on civics education teaching material in improving moral judgement competence of the fifth grade elementary schoolstudents.

The moral cognitive approach used as a framework for the development of civics education teaching material seeks to integrate stories of moral dilemmas in improving moral judgement competence. Discussion methods of moral dilemmas that attempt to change the point of view in problem solving can also improve the character of student responsibilities [15]. In addition, the process of mutual argument and debate in the process of discussion of dilemmas is a stimulus in student learning activities [16]. The various impacts that resulted in the use of moral dilemmas stories in learning activities show the superiority of cognitive moral approaches as a means of moral learning at schools.

Moral dilemmas stories as the core of a cognitive moral approach is a stimulus to trigger an individual critical thinking in problem solving. Decision-making in problem solving dilemmas is not like answering the story in general. Decisions in the dilemma story involve emotion and sometimesreflective wisdom [17]. An individual who tries to make a decision in a dilemma can drift into a story situation, so decision-making is often missed by logical value. Decision-making in the real dilemma of reflecting personality is when it reflexes shortly after learning the problems faced in the story [18].

Individual decision-making is unique and diverse. The uniqueness of each individual in decision-making dilemma is strongly influenced by various factors, especially the stage of moral value [19]. To guide the elementary school students in making the right decision according to moral and conscience, learning moral dilemmas at school will greatly assist them. The learning process at school through teacher cooperation, discussion, and feedback can stimulate moral judgement development [20]. Therefore, the discussion about morality in the classroom with teachers' guidance is very influential on the development of moral judgement.

The integration of learning dilemmas through civics education teaching materials is by developing stories of moral dilemmas relating to the concepts of civics education. The dilemma story developed in the teaching learning materials of this research is a dilemma that is in line with the developmental stage of the fifth gradestudents of elementary school and community life. The problems that become the topic of the story are about friendship, family and social problems that are often encountered children. The development of the story is based on a theory which reveals that moral value is essentially taking in everyday life wisely [7].

Increased moral judgement competence as a result of the use of dilemma stories is expected to have implications for moral character and personality. Ethical decision-making on educational processes and moral learning can be used as a means for developing effective ethics [21]. In addition, to shape character and personality, the development of moral competence in the cognitive aspect is one of the efforts to improve critical thinking [22]. The ability to think critically is one of the goals of learning civics education. The purpose of this subject is not only to build good citizens, but smart citizens in facing the environment in their lives [23]. Therefore, the development of a moral dilemma that accommodates various problems in the society is expected to prepare the students to become members of society who are able to solve various problems

#### 4. CONCLUSION

The use of cognitive moral-based on civics education teaching materialis effective to increase the moral competence of the fifth grade elementary school students. The statement is supported by the independent sample t-test that t-obtained is 2,161 whose value is greater than t-table 1.671 ( $2.161 > 1.671$ ). When viewed from the significance of t-test results, the significance value is lower than the alpha value ( $0.0035 < 0.05$ ). Furthermore, the N-Gain score of experimental class given by learning treatment using cognitive moral-based on civics education teaching material is higher than those of control group which is not given any treatment ( $0.36 > 0.22$ ).

This study is limited to the civics education subject in elementary schools, further research is expected to develop teaching materials on other subjects or even in integrated thematic learning at elementary schools. At secondary school level, cognitive moral approach through dilemma story can also be tested to develop moral education on all levels of education.

#### 5. ACKNOWLEDGEMENTS

Acknowledgments are given to all students and teachers of elementary school in Salatiga who have supported this research so that it can run well. The authors also thank to the experts who have validated the research products and instruments.

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