The Application of Value Clarification Technique (VCT) Learning Model on Students' Characters of Adiwiyata Program

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Info articles	Abstract
	The concrete success of Adiwiyata program is a self-awareness of the surrounding environment in controlling undisciplined habit and taking action as a shared responsibility. The character building using Value Clarification Technique (VCT) learning model becomes a teacher' alternative in emphasizing students' activity. This study would analyze the effect of VCT learning on students' characters through population density material and humans' role in the environmental management. The research used a quasi-experimental design with nonequivalent posttest-only control group design. The population of this study was a total of 293 students of class VII in SMPN 2 Jati Kudus in the academic year of 2016/2017. The sampling used simple random sampling technique. The data of this research were characters of discipline, responsibility, and environmental care obtained from psychological scales instrument and observation sheets, implementation sheets of VCT models, and responses questionnaires of students and teacher. The data were analysed by t-test, simple regression, correlation test, and coefficient of determination. It is found that the VCT learning model had a strong positive correlation to the responsibility character and a moderate correlation to the discipline and environmental care character. Moreover, the results of the correlation analysis and coefficient of determination of VCT learning on students' characters of discipline, responsibility, and environmental care were 33.2%, 38.3%, and 22.7% respectively. These results indicated that there was another dominant factor in students' characters.

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INTRODUCTION

Adiwiyata program is a government program to create the environment-based school. It is a program of the Ministry of Environment co-working with the National Education Department to integrate environmental education in the national curriculum which hopefully is able to change students' attitude to be environment-friendly (Bastaman, 2010). Consequently, the national Adiwiyata school is supposed to encourage school members to have good behavior and values-based action as an effort to succeed the Adiwiyata program.

Based on the observation, the Adiwiyata program in SMPN 2 Jati Kudus still dealt with problems in implementing the program for class VII. Overall, the students had not yet had their awareness towards environment for some reasons like they didn't know it or lazy, lack of discipline because unfamiliar with the program, and considered as a shared responsibility that made students doubt in clarifying action in public. Desfandi (2015) claimed that Adiwiyata program combines learning and action. Therefore it needs giving the effective method to change behavior. Thus, character education is necessary as behavior changes to build a good habit of behaving and acting based on values.

A character can be built and developed (Adisusilo, 2014). Through the learning process, building and developing characters becomes an effective way of teaching students to respect and perform the chosen values by implementing value clarification technique (VCT) learning model. VCT is one of the learning models to express values where students are instructed to find, select, analyze, decide, and take their action towards life values to fight for (Hervinovira *et al.*, 2014). Life will face the situation to choose without any skill to decide self-choice indeed facing many difficulties. Goleman (2003) states that education of values should be started from home, developed in school, and implemented in real society. VCT teaches students to proceed respect and focus until taking action. Thus, this research aimed at analyzing how was the magnitude of the effect of VCT implementation towards characters of discipline, responsibility, and environmental care on students of grade VII in SMPN 2 Jati Kudus.

Sanjaya (2011) argues that VCT can help students finding and deciding on a value which categorized as good in a problem through the process of analyzing existent and embedded value in students' self. The process of analysing this value will be seen when students face a problem. A teacher may bring this problem in the learning process according to the population density and environmental management materials that are packed in the VCT learning model. In the process of finding a solution, the students find, analyse, justify, develop, select, take action, and implement value in their life. Therefore in the learning process, it will happen the process of analysing value until taking action based on students' self.

Based on those problems, it needed research that could build students' characters of discipline, responsibility, environmental care to select, decide, and take action towards surrounding environment through school as an educational institution with environment viewpoint.

RESEARCH METHOD

The population in this research were all student of class VII in SMPN 2 Jati Kudus in the academic year of 2016/2017. The sampling used simple random sampling involving class VII C as the experimental group and class VII D as the control group. The independent variable was the value clarification technique (VCT) while the dependent variable was students' characters of discipline, responsibility, and environmental care.

The research used a quasi-experimental design with non-equivalent post-test only control group design. The data collection techniques used observation, psychological scale instruments, and

questionnaires. The data of this research were characters of discipline, responsibility, and environmental care obtained from psychological scales instrument and observation sheets, implementation sheets of VCT models, and responses questionnaires of students and teacher. The data analysis techniques used a t-test, simple regression, correlation test and coefficient of determination. The t-test was done to see whether there was a difference between the average students' character of the experimental group and the control group. Previously, it was done the prerequisite test consisted of normality and homogeneity test.

The analysis was continued by calculating the regression equation, in which the normal probability plot (P-plot) test, the linearity test, the heteroscedasticity test, and the Durbin Watson-test autocorrelation test were done previously. Furthermore, the regression analysis was done to see whether there was an effect of VCT learning model on students' character. The correlation test used in this research was the Pearson product moment. Meanwhile, the magnitude effect of VCT learning model on students' character was analyzed using the coefficient of determination. The testing technique was carried out using SPSS 16 and Ms. Office Exell 2010.

The stages in this research were planning and action. The planning stage like prior observation, arranging instrument and validating instrument. Meanwhile, the action stage included implementing of VCT learning, observing implementation of VCT learning model, and doing students' observation sheet where students filled psychological scale sheets and students' response questionnaire as well as teacher' response questionnaire to VCT.

RESULTS AND DISCUSSION

Based on the research, the data were characters of discipline, responsibility, and environmental care from the psychological scales instrument and the result of observation sheets, VCT implementation sheets, and questionnaire responses from students and teacher.

Table 1 Students' characters of the experimental and the control group

Students' characters	Group (%)	
	Experimental	Control
Discipline	82.97	78.1
Responsibility	77.12	73.01
Environmental care	81.73	76.9

Referring to Table 1, students' characters obtained from an average score of the result of observation using observation sheets and psychological scales sheets. The percentage of those observed characters showed that the experimental group was higher than the control group. The criteria of discipline, responsibility, and environmental care of the experimental group and the control group were shown in the following of Figure 1 and 2.
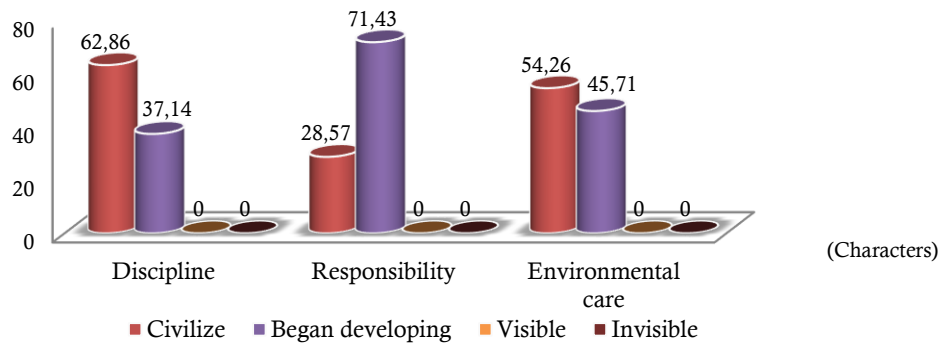
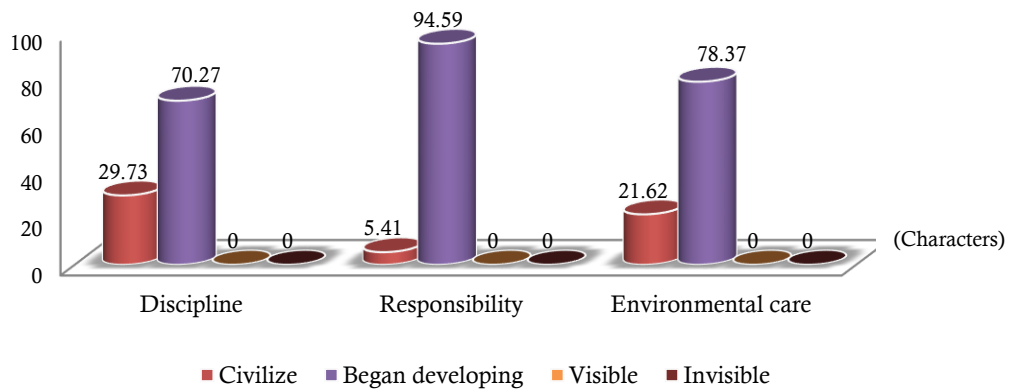**Figure 1** Criteria of students' characters of the experimental group

Figure 2 Criteria of students' characters of the control group

Figure 1 and 2 showed that the percentage of the number of students who had an attitude of entrenched on those third characters observed in the experimental group was higher than the control group. However, the t-test was still done to see if there was a difference on average of students characters between the experimental group and the control group.

Table 2 Result of t-test between the experimental and the control group

Students' characters	sig. (2-tailed)	t value	
		t_{count}	t_{table}
Discipline	0.001	3.623	1.690
Responsibility	0.001	3.607	1.690
Environment care	0.000	3.972	1.690

Based on the result of t-test on Table 2, it was seen that the sig. (2-tailed) < 0.05 and $t_{count} > t_{table}$, so there was a difference on characters between the experimental group and the control group. In addition, the result of regression, correlation and coefficient of determination were shown in Table 3, 4, and 5 as following.

Table 3 Result of regression analysis of the experimental group

Students' character	sig.	t value	
		t_{count}	t_{table}
Discipline	0.000	4.050	1.690
Responsibility	0.000	4.522	1.690
Environment care	0.004	3.109	1.690

According to Table 3, it was seen that there was an effect on the VCT model (X) towards characters of discipline, responsibility, and environmental care (Y) with equation $Y' = 28.801 + 0.642X$ which meant if the value of the VCT model increased 0.642 so the character of disciple would increase 0.642. It also happened to the character of responsibility and environmental care which each regression equation was $Y' = 30,617 + 0.551X$ and $Y' = 41.110 + 0.481X$.

Table 4 Result of the Pearson product moment correlation on the experimental group

Students' characters	r value		Level of relationship	Direction of correlation	sig. (2-tailed)
	r_{count}	r_{table}			
Discipline	0.576	0.334	Moderate	Positive (+)	0.000
Responsibility	0.619	0.334	Strong	Positive (+)	0.000
Environmental care	0.476	0.334	Moderate	Positive (+)	0.004

Based on Table 4, it was shown that the strong relationship of correlation coefficient depended on the magnitude of r_{count} and if the value of correlation the coefficient was positive (+) so the direction of two variables was linier. Moreover, the value of significant was used to see if there was relationship for population where sample taken. If the sig.(2-tailed) < 0.05, so there was a significant positive correlation which meant that coefficient could be generalized or could be occurred on population where sample taken. The magnitude of effect on the VCT learning model towards characters was calculated using analysis of coefficient of determination which shown on Table 5.

Table 5 Result of coefficient of determination of the experimental group

Students' characters	Value		
	r_{count}	R	KD
Discipline	0.576	0.332	33.2%
Responsibility	0.619	0.383	38.3%
Environment care	0.476	0.227	22.7%

According to Table 5, it was known that the magnitude of VCT learning model towards characters of discipline, responsibility, and environmental care depended on the R-value which means there was the effect of 33.2% on character of discipline, 38.3% on character of responsibility, and 22.7% on character of environmental care.

The difference of the significant characters' results between the two groups due to the different treatment on stages and the learning process. VCT emphasized students' activities through three stages namely freedom of choice stage, respect, and action (Raths *et al.,* 1978). On discussion group stage in the learning of VCT, the students freely chose (answering question) after considering the effect and problem in students' worksheet. Furthermore, in the students' worksheet of the relationship between population and the availability of land, the students should choose and consider one of their members to be observed according to the statement in the students' worksheet. For instance, the students answered by making the hydroponic system and hanging pot to overcome the problem of the availability of land, after knowing one of the effects that would arise from the number of family members was increased of garbage production and lack of space and clean water. When students were able to discuss those answer with their group, it might for students to respect and be happy towards their choice and be obvious in public on class discussion (presented or revealed idea or different answer

from others). Moreover, the students were able to take action based on their choice with throwing garbage based on its category and collecting bottles and used cans to be used as hanging pot or handicraft, and appreciating the importance of planting plants for the environment. If those activities are done repeatedly, these would be their lifestyle. It would grow the character of environmental care for students because it could overcome the garbage management problem and would grow character of responsibility because contributing bravely towards the surrounding environment. Indirectly, those students' attitude participated in succeeding the Adiwiyata program in the school.

Lickona (1992) emphasizes that there are three components of characters namely moral knowing, moral feeling, and moral action. The moral knowing means students should have knowledge, insight, and understanding. For instance, giving students understanding about the meaning of keeping the environment, the reason why not to throw garbage in the river, and the purpose of planting plants in the surrounding, and the advantage of using a bicycle to school instead of a motor. In this research, the students were in the stage of selecting after considering the consequence through discussion sheet of the experimental group. In addition, the students were doing practical work by observing the fish movement in the clean and polluted water with concluding that fish which were in the clean water would be healthy while those which in the contaminated water would be dying because of lack of oxygen. Through those learning, the students decided after knowing the effect towards themselves, others life creature, environment, and earth. This would encourage the awareness about moral feeling which involving emotion and feeling of students to build character. On the VCT learning, the students felt happy and respected created choice and acknowledge/emphasized the action like using a bicycle to school would reduce the air pollution since it made healthy, not throwing water detergent to river or sewer, and even watering plants, and communicating with other people through a presentation or revealing idea or answering a question from the teacher. Therefore, that awareness could create a willingness to act as a moral action where students got on a bicycle to reduce pollution, turned off the faucet to save clean water, and not become picky eaters or eating alternative food like corns, sweet potatoes, and bread to overcome food needs. After doing practical work about water and air pollution, the students have used a mask when traveling. This became a process which means to achieve moral action stage which might happen after accomplishing stages of moral knowing and moral feeling.

The experimental group had a percentage on entrenched criterion higher than the control group on characters of discipline, responsibility, and environmental care. This meant the experimental group had the number of students who consistently showed the attitude stated in the indicator. This was also supported by the results of students' response questionnaires that 88.57% of students were interested in learning and 96.43% of students were motivated during the learning. The low percentage of entrenched criteria on characters of responsibility compared to characters of discipline and environmental care because of the lack of awareness of personal responsibility and belief that learning was for self-interest. For example, in finishing the task (assignment/homework), due to lack of responsibility towards obligations, not caring about self and others, and still being affected by the environment and depending on other students, made the habit not good for students.

The reflection of the character of responsibility is also seen in the student response questionnaire, the lowest percentage of activeness in the group learning was 67.14%, although it was still in good criteria, the reason of low activeness of participating in the group learning was because some students still found the difficulties in learning and working together in group like the distribution of tasks on each member that had not yet been maximized that affected the low response to this aspect. Based on the observation during group discussion, some students were busy in one group so that group assignments were only charged to a few group members.

Being aware of the environment was also seen in the activity of Friday clean, based on the observation on students' attitude of the experimental group it showed a positive attitude and linear

attitude towards the result of characters' environmental care. According to Priyanto *et al.*, (2013), he explained that the word attitude and behavior are related. When the students had good knowledge (cognitive), it might get a good feeling/affective, which became the first step to build a strong willingness and become a commitment to doing action. Although not all the students have a commitment or desire towards environmental care, the students were still in the process of developing and hadn't yet reached the action stage.

Skill and creativity of teacher in the learning process could teach students to decide and take action in each problem that they found. Although it needed more time and fixed preparation, it became teachers' note in the next meeting to revise the weakness together with the good time management so that it increased in every meeting.

The result of this study was supported by Utami *et al.* (2012) which concluded that VCT learning model could improve students' creativity, learning outcome, and could give positive feedback towards biology learning as an effort to internalize character education. Moreover, Agustini *et al.* (2015) also concluded that there was a significant difference in students' scientific attitude between students who followed the VCT learning than those who followed the conventional learning.

CONCLUSION

Based on the data analyses and discussion, it could be concluded that the VCT learning model had the positive effect of strong correlation on the character of responsibility and moderate correlation on characters of discipline, and environmental care on students of class VII of Adiwiyata program in SMPN 2 Jati Kudus. The effect magnitude of VCT learning model towards characters of discipline, responsibility, and environmental care respectively were 33.2%, 38.3%, and 22.7%.

According to the result, the suggestions were addressed to teachers, students, and researchers. First, the teachers should learn detailed VCT learning from content or context side, because they are facilitator and motivator that can encourage students to actively build their knowledge through experience from the result of interaction with the environment. Second, the students should be more active in following the learning and developing understanding by building their knowledge through experience. Then, the researchers who are interested in the VCT learning model should establish learning activities more exciting and should consider any obstacles in this research.

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