The Effect of Project Based Assessment with Value Clarification Technique in Improving Students' Civics Learning Outcomes by Controlling the Family Environment

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Abstract: The decline in student character is the result of low student learning outcomes. The common student learning outcomes are influenced by several factors, and one of them is teacher-centered, monotonous learning model. For this reason, it is deemed necessary to conduct research that aims to determine the effect of project-based assessment on values clarification technique (VCT) learning on improving students' learning outcomes by controlling the family environment. This study uses a 2x2 factorial experimental design. The sample was selected through multistage random sampling with 120 students. The two-way ANCOVA data analysis technique was used to analyze the data. The findings obtained after controlling the family environment are: 1) civics learning outcomes from the group of students who used value clarification techniques are higher than those using conventional learning models and 2) civics learning outcomes from the group of students who were given project-based assessments are higher than the group who are given conventional assessments. Thus, it can be recommended that civics education teachers used appropriate VCT and project-based assessments to improve learning outcomes.

Keywords: *Family environment, project based assessment, learning outcomes, VCT learning.*

Introduction

Quality education is needed to support intelligent people who can compete in the future. Education that can support development in the future is education that can develop students' potential so that students can face and solve life problems they face. Education is a process that can form a complete human being, namely a person who has noble and intelligent character. One of the educations provided is civics learning. Civics learning is a subject that focuses on forming citizens to understand and be able to use their rights and obligations to become good, intelligent, skilled, and characterized citizens as mandated by Pancasila and the 1945 constitution (Marzuki & Basariah, 2015; Tambusai, 2018). Thus, civics learning is expected to give Indonesian people noble character, culture, and dignity. In the end, they can bring this nation to stand firm in a constellation that is increasingly expanding able to compete in the global world. Therefore, civics learning must be packaged in such a way as to suit its characteristics, namely value investment. Also, to determine the success of civics learning, and assessment activity is needed.

The effectiveness of learning is influenced by the assessment process carried out. With the results of the assessment of the learning process, educators will be able to manage to learn well (Uttl et al., 2017). Assessment is one of the methods to determine students' progress in participating in learning and managing learning carried out to make learning improvements (Zhang, 2020). Assessment in education is not a tool used to increase the value of students, but rather to equip students with knowledge that can be used actively to solve problems or assignments given (Black & Wiliam, 2018; Leong et al., 2018). Students need to assess the material they are learning, which will impact their confidence and motivation in the learning process (Carpenter et al., 2020; Chen et al., 2020). Assessment will give

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students a choice to study or not (Saenz & Smith, 2018). A good assessment is an assessment that is carried out thoroughly, which includes the attitudes, skills, and knowledge of students (Machts et al., 2020). With a thorough assessment, educators will know the picture of learning. Of course, to make this happen, educators must be given an understanding of assessment so that educators can apply it in the learning process. Ways can increase educators' knowledge through workshops and training (Crusan et al., 2016; Mak & Lee, 2014). Assessment in Indonesia is still used to determine students' progress in learning. However, in education in European countries and several Asian countries, assessments have been collaborated in the learning process, resulting in conducive learning and supporting the learning process. An assessment provides opportunities for students to be involved in the evaluation process, both making and conducting assessments, improving the learning process (Lee & Coniam, 2013; Sulistyawati, 2020), and improving writing skills (Mak & Lee, 2014; Ranalli et al., 2018). So, based on this description, it can be told that an assessment is not only used to measure student learning progress. However, assessment can collaborate with learning, which positively impacts learning.

However, the conditions on the ground were different from what was expected. The implementation of civics learning is still slightly shifted from the government's expectations. Civics learning can be misinterpreted as one of the sciences that need to be memorized without understanding the meaning of the values studied (Wijayanti & Wasitohadi, 2015). There has not been an increase in the quality of self as human beings in students. Teachers rarely emphasize sense and understanding of values in the learning process. The civics learning process is generally taught using a conventional model so that it has little impact on the quality of learning and learning outcomes (Fitriani & Sundawa, 2016). In addition, the assessment process carried out by educators cannot carry out complex or comprehensive assessments. Educators can only assess the results of the assignments given, the midterm exams, and the final semester exams without knowing the process. It will also harm students. A good assessment process will have a positive impact on students. It is the task of educators to think of efforts that can create a learning environment by current conditions, the characteristics of students, realize the goals of National Education, and produce humans who are ready to compete in the global era. A learning environment is needed to support this achievement to make this happen. For this reason, a change is required for the current learning process. More learning leads to activities that support the cognitive processes of students. Learners and educators construct their meanings from learning activities and events in the classroom, and their constructions about the subject matter can differ from normative and authentic concepts. One of the learning models that can be used to make the learning environment more conducive is the values clarification technique (VCT) learning (Ekasari, 2017; Risvanelli, 2017).

VCT is one approach to value education. Students are given the freedom to determine their values based on their experience in their environment (Ekasari, 2017; Lisievici & Andronie, 2016; Risvanelli, 2017). VCT is a teaching technique to assist students in finding and determining a value that is considered good in dealing with a problem by analyzing existing values (Wijayanti & Wasitohadi, 2015). VCT will provide many opportunities for students to learn about values (Ekasari, 2017). VCT is value learning that can direct students to have the skills or ability to determine the correct values of life according to their life goals (Prihandoko & Wasitohadi, 2015). In learning using VCT, students are not asked to memorize the values that other parties have selected. On the other hand, learning using VCT helps discover, analyze, take responsibility, develop, choose, take a stand, and live their values (Risvanelli, 2017). Several studies that have been carried out related to the VCT model include research that states that VCT affects the emergence of attitudes of religiosity, honesty, intelligence, toughness, caring, democracy (Fitriani & Sundawa, 2016). Research states that the learning treatment with the VCT model has a significantly higher impact on attitude development than the conventional learning model (Tyas & Mawardi, 2016). Other research states a significant difference between the VCT and the expository models on students' social skills (Sukmawati & Nashir, 2021). The study notes a significant difference in the attitude of patriotism in VCT model learning and conventional learning (Dewantoro & Sartono, 2019). A study says that using the VCT learning model role-playing model can reduce bullying behavior (Wiradimadja, 2017). So, based on this description, it can be said that VCT has a positive impact on the formation of values in students.

In addition to the VCT model, project assessment is offered to improve learning. Project-based assessment is an assessment development that is sourced from project-based learning. Project-based assessment involves completing tasks within a specific time frame that emphasizes processes and products. It is used to develop and monitor students' planning, investigating, and analyzing projects. As a result, project tasks begin with planning, data collection, organizing, processing, and presenting. Project-based assessment includes the assessment of tasks that contain investigative activities and must be completed within a specific time by students in groups. Project-based assessment requires students to solve various problems (Ali et al., 2018; Amri & Tharihk, 2018). In addition, this assessment can guide students in conducting inquiry activities to gain new insights and solve problems with the knowledge they build themselves (Asikin et al., 2017; Sukmasari & Rosana, 2017). In project-based assessment, students must use various skills, concepts, and learning. So, it can be concluded that project-based assessment enhances the skills and abilities needed to carry out the actual task. Therefore, performance appraisal is required to achieve learning outcomes. This statement is supported by research that states a significant difference in science critical thinking skills between groups of students taught using a project appraisal-based Problem-Based Learning model and those taught using conventional learning in the classroom. Research states a simultaneous and partial influence of attitudes and skills in science processes between students taught by project-based assessment based on local culture and learning by conventional

assessment (Parmiti et al., 2021; Safaruddin et al., 2020). So, a project-based assessment can affect students' attitudes towards the material being studied.

Based on these descriptions, it is known that both the VCT model and project-based assessment have a positive influence on the learning process. Therefore, in this study, these two things were collaborated in the civics learning process to see their impact on student learning outcomes. This research is different from previous research because this research will also control the family environment. Family environment is one of the determining factors for student success in the learning process. The positive family environment shown by parents can help children shape and develop their character (Novita et al., 2015; Suriansyah & Aslamiah, 2015). Therefore, this study examines the impact of project-based assessment in VCT learning on student learning outcomes with a controlled family environment. This research is expected to contribute to innovative learning models used in the learning process.

Methodology

Research Design

This research was conducted at a Junior High School in Singaraja in the first semester of the 2013/2014 academic year. This research started in January and ended in December 2013. This study used a quasi-experimental design. The design used was a 2X2 covariance factorial design. The factorial design was used to simultaneously investigate the effect of a treatment variable on the investigated sample group. The use of factorial analysis design in this study is based on the assumption that two variables influence other variables and the interaction of the two independent variables on the dependent variable. This design provides an opportunity to determine the main effect, the interaction effect, and the simple result of the independent variables on the dependent variable. civics learning outcomes of students in this study were taken from the post-test scores only at the end of the study. In other words, without taking into account the pre-test scores. This study uses only a post-test design without taking into account pre-test scores. Internal validity threat factors can be reduced to a minimum and controlled, such as history, maturity, tests, instruments, regression, mortality, and implementation.

Sample and Data Collection

The target population in this study were all eighth-grade students of State junior high schools in Buleleng Regency. At the same time, the affordable population is all eighth-grade students of junior high school in Singaraja City, totaling 1723 people consisting of 5 schools. In each school, there are 10-14 classes. The sample was selected using a multistage random sampling technique with 120 students. The students were divided into two groups, with 60 students. The first group is the experimental group taught using VCT, and the second group is called the control group, which is prepared using the conventional learning model. Both groups were divided into 30 students. Furthermore, random sampling of two groups of 30 students was given formative assessments, and two groups of 30 students were given conventional assessments.

The instrument used is a civics learning outcome test which includes the cognitive domain. Two types of tests were developed to measure civics learning outcomes, namely a test to measure the cognitive domain and a test to measure the affective domain. The civics learning outcomes test for the cognitive domain is based on the civics education curriculum in junior high school. This measuring tool is suitable for measuring children's abilities related to cognitive skills. The civics learning outcomes test in the cognitive domain uses a multiple-choice test. The correct answer will be given a score of 1, and the wrong answer will be given a 0. The question developed from the competence of the Indonesia constitutions, deviations from the constitution, the amendment result to the 1945 constitution, and a positive attitude by implementing the law. This competency developed into 30 multiple choice questions consisting of cognitive levels C1-C6. The instrument for calculating cognitive domain learning outcomes is presented in the Table. 1. The next stage is the instrument validation test. Based on the results of calculating the biserial point correlation coefficient for the cognitive domain, it was found that from 40 items, 30 were declared valid, and 10 were declared invalid. The instrument reliability coefficient is calculated after obtaining a good instrument of as many as 30 items for the cognitive domain. Based on the calculation of the reliability of the civics learning outcomes test using the Microsoft Excel 2007 program, the reliability coefficient of $r_{1.1} = 0.75$ means that the reliability coefficient of the civics learning outcome test is high and can be used to measure research data.

Table 1. Indicators of Civics Learning Outcomes in the Cognitive Domain

Basic Competencies	Indicator
1. Constitutions in Indonesia	1. Mention the constitution in Indonesia 2. Explain the meaning of the constitution in Indonesia 3. Explain the system of administering the constitution
2. Deviations from the constitution that have ever been in Indonesia	1. Explaining constitutional deviations that occurred in Indonesia
3. The results of the amendments to the 1945 Constitution	1. State the form of the country 2. Mention the results of the amendment to the 1945 Constitution 3. Explain the meaning of the amendment of the law
4. Positive attitude towards the implementation of the amended law	1. Demonstrate a positive attitude towards the implementation of the amended law 2. Demonstrate a positive attitude towards the effect of changes to the law 3. Show a positive attitude in the school environment

The family environment instrument uses a Likert scale questionnaire. The family environment statement has been written according to writing rules to scale with this model. The information will be based on a predetermined scale design. Respondents will be asked to state the conditions they feel in five different categories of answers, namely: "always", "often", "sometimes", "rarely", and "never". This questionnaire was developed from 3 family dimensions, namely; 1) children's perception of the family's physical environment, which consists of a comfortable, safe, clean, healthy, orderly, shady, calm, and beautiful environment, 2) children's perceptions of parental behavior consisting of four dimensions, namely: personal work, distance, consideration, and encouragement, 3) the child's perception of the family relationship itself which consists of obstacles, freedom, intimacy, and family spirit. The details are presented in Table 2. The results of calculating the correlation coefficient, from 46 items, 40 items were declared valid, and 6 were declared invalid. And the calculation results obtained an instrument reliability coefficient of 0.804. Thus, the test results show that the family environment reliability coefficient is very high and can measure research data.

Table 2. The Indicators Family Environment

No	Dimension	Descriptor
1	Physical Environment	a. Comfort b. safety c. Hygiene d. Health e. Orderly f. Shady g. Coolness h. Beauty
2	Parents' Behavior	a. Pressure on children b. distance between parents and children c. Consideration d. encouragement
3	Parent-Child Relationship	a. Obstacles in the task b. Freedom c. Familiarity d. Spirit at work

Analyzing of Data

This study uses descriptive and inferential data analysis. The descriptive analysis describes student learning outcomes in the presentation of mean and standard deviation data. While the inferential analysis used is two-way ANCOVA. All hypotheses were tested at a significance level of 5%—inferential analysis in the form of two-way ANCOVA to test the theory, followed by further testing. To test, it used SPSS version 17.0 software. The analytical model used is a two-way analysis of covariance. This model tests the differences in the average parameters of civics learning outcomes for all groups of students formed by the formative learning and assessment model by controlling for the student's family environment. The two-way analysis of covariance procedure was used to: (1) examine the differences in civics learning outcomes for all student groups formed by the learning model factors; (2) examine the differences in civics learning outcomes for all groups of students formed by formative assessment factors; (3) examine the effect of the interaction of learning model factors and formative assessment on civics learning outcomes; and (4) examine differences in civics learning outcomes in groups of students formed by the main factors of the learning model and formative assessment.

After controlling the family environment, the four testing processes were carried out, serving as a statistically controlled covariance. Thus, the parameters tested in the analysis of covariance (ANCOVA) are differences in the average deviation (adjusted means) or differences in constants from homogeneous regression. Before conducting data analysis to test hypotheses, prerequisite tests are undertaken first. Prerequisite tests for ANCOVA are normality test, homogeneity test, regression linearity test, and significance test of the effect of regression.

Findings / Results

The results of the descriptive analysis show that the VCT learning model and project-based assessment have more influence on learning outcomes after the learning environment is controlled. The results of the descriptive study are shown in Table 3. The results show that the VCT learning model has a better effect than the conventional one. Learning with project-based assessment produces better learning outcomes than learning with traditional assessment. In addition, the VCT learning model and project-based assessment have the most significant influence compared to other learning models. It can be seen from the average value of learning outcomes of 56.90. So, the VCT learning model and project-based assessment can positively contribute to student learning outcomes.

Table. 3 Results of descriptive analysis of learning outcomes

No	Treatment	Mean	Standard Deviation
Experimental Group			
1	VCT Learning Model	52.10	9.20
2	Project-based assessment	51.37	10.72
3	VCT Learning Model and project-based assessment	56.90	9.10
4	VCT Learning Model and Conventional Formative Assessment	48.33	11.81
5	Conventional Learning Models and project-based assessment	46.03	9.16
Control Group			
6	Conventional Learning Model	47.75	9.87
7	Conventional Formative Assessment	48.67	8.14
8	Conventional Learning Models and Conventional Formative Assessment	49.10	8.72

Data Analysis

The result of the conditional test performed is the Normality test with the Lilliefors test. The normality test results showed that the research data were normally distributed. It can be seen that the value of L-count is smaller, L-table for Lilliefors test at significance level = 0.05 with n = 30, L-table = 0.16, and n = 60, L-table = 0.11. Thus, it can be concluded that all subpopulations of civics learning outcomes and student family environments in this study were normally distributed. Thus, the data normality conditions can be met. The next test is the homogeneity test. The calculation of homogeneity using the Bartlett test for the variance of civics learning outcomes was carried out using the Bartlett test with the help of the Microsoft Excel 2007 program, or the F-test formula could be used. Using the significance level = 0.05 and df = 3, the hit score = 1.111 and the table = 7.815. Thus, hit = 1.11 < table = 7.82, so it can be said that H0 is accepted, which means the data comes from a homogeneous data distribution.

The family environment variance homogeneity test was carried out using the Bartlett test. The analysis process was carried out using Microsoft Excel 2007 to test the homogeneity. The test is carried out at the significance level = 0.05 by comparing the calculated value and the table value with the test criteria, namely: accept H0 if count < table and vice versa reject H0 if count > table. By using the significance level = 0.05 and df = 3, the hit score = 5.40 and table = 7.82. Thus, hit = 5.40 < table = 7.82, it can be said that H_0 is accepted, which means that the data comes from a homogeneous data distribution.

The next test carried out was a linearity test using the "Compare Means/Means" program with the results of the analysis showing that at the significance level = 0.05; H0 is accepted based on the F test statistic on the deviation from linearity line, namely: F-count = 1.374 < F-table 0.05(46;72) = 1.53. It can be concluded that based on simple linear functions have no significant difference. And the average civics learning outcomes (Y) between the 40 values/observation points from the family environment (X) has a significant difference based on the F test statistic in the between-groups line, namely F-count = 18.75 > F-table 0.05(47;72) = 1.53. At the significance level = 0.05, it can be concluded that based on the F test statistics on the linearity row in table 4.20, namely: F-count = 817.92 > F-table (1;72) = 3.98. Thus, the conclusion is that X has a linear effect on Y. Following the conditions related to parametric statistics on ANCOVA as above have been fulfilled so that further inferential analysis can be continued in the context of testing research hypotheses using statistical techniques ANCOVA. This hypothesis test was carried out by ANCOVA analysis. The analysis results are shown in Table 4, Table 5, and Table 6.

Table 4. F-test Statistics on AB, A*B on Civics Learning Outcomes by Controlling Family

Source	Sum of Squares	df	Mean Squares	F-count	F-table	
					α = 0,05	α = 0,01
Corrected Model	10607.09	4	2651.77	480.41		
Intercept	2069.19	1	2069.19	374.86		
X	8589.58	1	8589.58	1556.13		
A	29.91	1	29.91	5.42		
B	138.22	1	138.22	25.04	3.92	6.84
A * B	761.28	1	761.28	137.92		
Error	634.78	115	5.52			
Total	311221.87	120				
Corrected Total	11241.87	119				

The results of the hypothesis analysis in Table 4 show that (1) the learning outcomes of civics and academic education of the group of students who studied through VCTLM (A) were higher than the group of students who studied through CLM (A2). The results of the analysis show that the score of F-count = 5.42 is greater than the score of F-table = 3.92, with the corrected mean value of A 1 = 50.51 > the corrected mean value of A 2 = 49.49; (2) civics learning outcomes for the group of students who were given formative assessment projects were higher than the group of students who were given conventional formative assessments after controlling for the family environment. The results of the analysis showed that the F-count score = 25.04 was higher than the F table score = 3.92, with the corrected mean A 1 = 51.07 > the corrected mean A 2 = 49.93; (3) There is an interactive effect between the learning model and formative assessment on civics learning outcomes after controlling the family environment. The results of the analysis show the F-count score. = 137.92 > F-table score = 3.92.

Table 5. t-Test Statistics on the Average Parameters of Civics Learning Outcomes (Y) between All Levels of Formative Assessment Factors (B) for Each Level of Learning Model Factors (A) by Controlling Family (X)

Parameter	Symbol Parameter	B	Std. Error	t-count	t-table	
					α = 0,05	α = 0,01
Intercept	β0	-47.60	2.49	-19.08		
X	δ0	0.63	0.02	39.45		
[A=1]	β1	-4.03	0.61	-6.60		
[A=2]	-	0.00	0.00	0.00	1.66	2.36
[A=1][B=1]	β2	-2.90	0.61	11.83		
[A=1][B=2]	-	0.00	0.00	0.00		
[A=2][B=1]	β3	10.10	0.86	-4.78		
[A=2][B=2]	-	0.00	0.00	0.00		

The results of the hypothesis analysis in Table 5 show that in the group of students who learn to follow the value clarification model, the civics learning outcomes of the group of students who are given formative assessment projects are higher than the group of students who are given conventional formative assessments after controlling for the family environment, the results of the analysis show the value of t-count. = 11.83 > t-table = 1.66, and in the group of students who learn to follow the conventional learning model. civics learning outcomes for the group of students who were given a formative assessment project were lower than those given a conventional formative assessment after controlling for the family environment. The analysis results show that the value of t-count = -4.78 is smaller than t-table(60) = -1.66. It means that specifically for the group of students who were given the conventional learning model, the civics learning outcomes in the group of students given the formative project assessment was lower than those given the conventional formative assessment after controlling for the family.

Table 6. t-Test Statistics About the Parameters of the Average Civics Learning Outcomes (Y) Between All Levels of Learning Model Factors (A) for Each Level of Formative Assessment Factors (B) by Controlling Family (X)

Parameter	Symbol Parameter	B	Std. Error	t-count	t-table	
					α = 0,05	α = 0,01
Intercept	β0	-47.60	2.49	-19.08		
X	δ0	0.63	0.02	39.45		
[B=1]	β1	-2.90	0.61	-4.78		
[B=2]	-	0.00	0.00	0.00	1.66	2.36
[A=1]*[B=1]	β2	6.07	0.62	9.82		
[A=1]*[B=2]	β3	-4.07	0.61	-6.60		
[A=2]*[B=1]		0.00	0.00	0.00		
[A=2]*[B=2]		0.00	0.00	0.00		

The results of the hypothesis analysis in Table 6 show that in the group of students who were given a formative assessment project, the civics learning outcomes of the group of students who learned to follow the value clarification model were higher than the group of students who learned to follow the conventional learning model after controlling for the family environment, the results of the analysis show the value of t-count = 9.82 is greater than t-table (60) = 1.66. And in the group of students who were given conventional formative assessments, the civics learning outcomes of the group of students who learned to follow the value clarification model were lower than those who learned to follow the conventional learning model after controlling for the t-count family environment = -6.60 > t-table = -1.66. From the results of hypothesis testing, it can be concluded that the learning model and formative assessment have a significantly greater effect on civics learning achievement after controlling the family environment. Therefore, teachers need to choose and use appropriate formative learning and assessment models in civics learning.

Discussion

The results showed that the VCT learning model influenced learning outcomes. The VCT learning model can affect learning outcomes that cannot be separated from the learning syntax. The syntax in VCT learning consists of 7 syntaxes grouped into 3. The first stage is freedom. At this stage, students are free to choose what to do in the learning process. Giving students freedom in the learning process will make students more motivated in learning process. VCT learning provides opportunities for students to explore and build their knowledge. In a significant learning process, students will gain more experience, which can later be used in everyday life (Bressington et al., 2018; Kostiainen et al., 2018). In addition, learning that provides freedom will enable students to develop independent learning attitudes. In addition, knowing that gives space will allow students to develop independent learning attitudes. Independent learning confidence in the ability to achieve learning goals that involve students independently (Henri et al., 2018; Nguyen & Habók, 2021), to make a decision, choose the methods and techniques used to monitor the acquisition procedure, and evaluate all that has been obtained (Tseng et al., 2020). This condition will certainly have a good impact on the learning process. Namely, there will be an increase in student learning outcomes.

The second stage is valuing. The VCT model provides opportunities for students to build students' knowledge about how to respect others. Respecting others will undoubtedly create a good relationship between students and teachers and students and students. A good relationship between students will make the learning process more comfortable and improve learning more conducive. Learning with peers will encourage students to play an active role in learning (Oh, 2019). Peers help, guide, and support their peers to build learning through interaction and collaboration (Andersen & Watkins, 2018). By being guided, assisted, and given feedback by peers, students will increase their self-confidence (Han et al., 2015; Stone et al., 2013). So, it can be said that an attitude of respect between students will build a good relationship between students, which will impact the learning process. Students will find it easier to share the material they are learning, and students will learn from their friends more easily, considering they are at the same stage of development. Establishing a good relationship will make it easy for students to share in the learning process, which will undoubtedly impact student learning outcomes.

The third stage is action. Students are allowed to do or try something done in the learning process. In this case, students can repeat the material they have learned. Repeating something they do will affect student learning outcomes. Students will understand more about the material they learn because they do it themselves. Doing it yourself will undoubtedly impact what they get in the learning process. As we know that VCT learning is learning, that emphasizes value learning. Learning Values Clarification Technique (VCT) is a valuable education approach. Students are given the freedom to determine their values based on their experience in their environment (Ekasari, 2017; Lisievici & Andronie, 2016; Risvanelli, 2017). Learning using VCT, students are not asked to memorize the values that other parties have chosen.

On the other hand, this kind of learning helps discover, analyze, take responsibility, develop, choose, stand, and live their values (Risvanelli, 2017). Several studies that have been carried out related to the VCT model include research that states that VCT affects the emergence of attitudes of religiosity, honesty, intelligence, toughness, caring, democracy (Fitriani & Sundawa, 2016). These descriptions illustrate that the VCT learning model has more influence on student learning outcomes because the learning process is student-centered. In addition, students who study with VCT are allowed to freely choose the lessons or values they want to learn, learn to appreciate them more, and repeat or do something that has been previously known. In addition, with the family environment control. By controlling the family environment, the learning process with the VCT model becomes better. The learning process will not take place well without the role of parents. The positive family environment shown by parents can help children shape and develop their character (Novita et al., 2015). So, a good family environment will make students learn more comfortably without fear and anxiety.

A project-based assessment provides opportunities for students to be more active in the learning process. Project-based assessment involves completing tasks within a specific time frame that emphasizes processes and products. It is used to develop and monitor students' planning, investigating, and analyzing projects. As a result, project tasks begin with planning, data collection, organizing, processing, and presenting. Project-based assessment includes an assessment of assignments that contain investigative activities and must be completed within a specific time for students in groups. Project-based assessment requires students to solve various problems (Amri & Tharihk, 2018). In

addition, this assessment can guide students in conducting inquiry activities to gain new insights and solve problems with the knowledge they build themselves (Sukmasari & Rosana, 2017). In addition, project-based assessments will provide feedback to students directly, which makes students more motivated to complete the given project. However, this feedback is often forgotten and rarely done for some teachers.

In project-based assessments, feedback is obtained in making assignments and the final results of the projects. Thus, students feel valued in completing the assigned tasks. Giving feedback improves student performance. Feedback affects the learning process; further feedback will determine its effectiveness (Wang et al., 2019). Feedback is not just a true-false statement but contains more detailed responses in the form of an explanation of what the students made. Students will get more precise information (Cheng, 2017; Finn et al., 2018; Lachner et al., 2017). Providing good feedback will undoubtedly have a positive influence on student learning outcomes. In addition, the existence of a family environment will make students learn better.

The results also show that the VCT learning model and project-based assessment affect civics learning outcomes after controlling the family environment. As described by the interaction of the two variables, it makes the learning process more effective because students learn more centered on students and active learning. Active learning students certainly create a better learning environment that increases their interest in learning. Interest in learning affects the quality of student learning. Interest in learning as a product and perception of self-efficacy will affect student motivation in the learning process (Tamardiyah, 2017). Students interested in learning activities will try harder than students who are less interested in learning (Aprijal et al., 2020; Nurfadilla & Rosleny, 2018). In other words, interest in learning is a motivating factor for students to learn because their interest will grow the pleasure and willingness of students to learn (Yunitasari & Hanifah, 2020). Students with a high interest in learning will ultimately achieve better learning outcomes than students with low interest. Students who are not interested in the subject matter will be less sympathetic, lazy, and not passionate (Lisma et al., 2019). High interest will make students more enthusiastic about learning and solving the problems that impact student learning outcomes. These descriptions illustrate that the VCT model and project-based assessment positively influence student learning outcomes both partially and interactively. In this case, students learn actively in building the values obtained in the learning process. The interaction of these two variables makes students learn to respect the opinions of others. With this learning model, learning can be recommended as an alternative to improve learning outcomes.

Conclusion

VCT and project-based assessment significantly affect student civics learning outcomes after controlling the student's family environment. It can be seen from the results of civics learning. The students taught using VCT had a higher score than those taught using the conventional learning model. civics learning outcomes of groups given formative assessments were higher than those shown conventional assessments after controlling for the family environment. After controlling the family environment, an interactive effect between the learning model and project-based assessment on civics learning outcomes. In the group of students taught using VCT, the learning outcomes of students who were given project-based assessments were higher than those given conventional reviews after controlling for the family environment. In the group of students who were given project-based assessments, the learning outcomes of students who were taught using VCT were higher than those who were taught using conventional learning models after controlling for the family environment.

Recommendations

Based on the findings in this study, it is recommended for practitioners to apply project-based assessment with the VCT learning model in learning to improve students' civics learning outcomes. In addition, this model can be applied continuously in other subjects. This research is also expected to be used as input for other researchers to conduct similar research or even with other methods for research.

Limitations

The limitations of this study are the limitations of the population and sample, and the limitations of the dependent variable studied. Therefore, further research is expected to reach a larger population, and measure other variables related to civics learning.

Authorship Contribution Statement

Widiana: Conceptualization, design. Parmiti: Analysis. Kristiantari: Writing/drafting manuscript. Kertih: Editing/reviewing, supervision. Adijaya: Translating.

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