The Effect of Scientific Approach Based on Portfolio Assessment towards the Learning Outcomes of Civic Education of the Students Grade V Viewed from the Tendency of Observing Objects on Theme 7 SDN 4 Ubung

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Abstract

This study is aimed at determining significant differences between the Civics learning outcomes of the students who took a scientific approach based learning with portfolio assessment in terms of concrete objects and students who took a scientific approach based learning with portfolio assessment in terms of abstract objects. This study is a pre-experiment (pre-experimental design) with the design of the study was the Static Group Pretest-Posttest Design. The population in this study was the students of grade V SDN 4 Ubung Denpasar, in the academic year 2014/2015, amounting to 60 people. The samples were taken by using random sampling techniques. The data in the form of the value of Civics learning outcomes were collected with the usual multiple-choice test. The data were analyzed using descriptive statistics and t-test. The results showed that there were differences between the Civics learning outcomes of students who took a scientific approach based learning with portfolio assessment in terms of concrete objects and students who took a scientific approach based on learning through portfolio assessment in terms of abstract objects with t = 2.29, t table with 5% level of significance and db = 58, obtained t table at 2.00. This meant that tobserved > ttable (2.29> 2.00). Based on these results, it could be concluded that the scientific approach based on a portfolio assessment in terms of the object being observed on the theme of the history of civilization of Indonesia influenced the learning outcomes of Civics of the students grade V in SDN 4 Ubung Denpasar.

Introduction

Education is an identity of progress and success of all countries. Human resources are reflected through education. In Indonesia, the quality of education can not be categorized in the moderate level. It is evident that the younger generation of Indonesia has not been able to compete with other countries. In the era of globalization, human resources should have good quality and the quality is examined through the intelligence perspective that includes faith and devotion to the Almighty God, the noble character, and intellectually globalization. One of the government's efforts to improve human resources is through education that includes formal, informal and non-formal education. More specifically, the efforts made through the development of curriculum are adapted to the demands of globalization.

Education curriculum tailored to the characteristics of students, the learning environment, and learning resources, especially at the primary level curriculum is implemented in Indonesia. The current curriculum in Indonesia is the curriculum of 2013, curriculum 2013 puts more emphasis on the processes and activities of students during the learning process. Adjustments to the curriculum of 2013 are in line with the principles that the curriculum; (A) is goal-oriented, (b) relevant, (c) efficient and effective, (d) flexibie, (E) continuous, (f) balanced, (g) align, (h) high-quality (Hamalik, 2010). Hence the principle in the curriculum can change the paradigm of traditional learning to become new or innovative integrated learning (thematic). Marhaeni (2013: 193) states that the Integrated Learning (thematic) is a matter of learning by integrating multiple subjects in a single theme or subject.

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In accordance with the integrated learning in curriculum 2013 the teacher's role are as a facilitator and a motivator in students' learning. Therefore, in this study, students have the more active role since the students can interact directly with other students, students with teachers, students with learning resources and students with a learning environment so that the learning is more meaningful. This is in accordance with the statement of Marhaeni (2013) who states that the characteristics of integrated learning are (1) the learning is centered on the student, (2) provides direct experience for the students, (3) separation of subjects is invisible, (4) presents the concept of various lessons in a learning process so that it will be meaningful, (5) is flexible, (6) the learning outcomes can develop according to the interests and the needs of children.

At the primary school level, the characteristics of the students in the learning process belonged to the concrete operational stage in terms of students studying everything that must be based on facts and visualization through the medium of learning. Curriculum 2013 is a curriculum that emphasizes the process of how students observe, ask, try, associate and communicate something they gained in learning. This research will be conducted in grade V semester 2 through thematic learning that integrated multiple subjects into a theme. Themes to be presented in the implementation of this research were the theme 7 that was the History of Civilization in Indonesia.

In order to implement the quality of education, the government has set curriculum 2013 to be implemented in schools. On each application of the curriculum, learning approach has various applications, to be the curriculum today. A scientific approach is a learning approach that is applied to the application of learning in curriculum of 2013. At every step of the core learning process, teachers will take steps in accordance with a scientific approach to learning, hence the curriculum 2013 is mandated the essence of the scientific approach to learning.

The scientific approach is believed to be the golden bridge and the development of attitudes, skills, and knowledge of learners. In the approach or work process that meets the scientific criteria, the scientists put forward the inductive (inductive reasoning) compared with deductive reasoning (deductive reasoning). Deductive reasoning sees a common phenomenon to then draw specific conclusions. Instead, look at the phenomenon of inductive reasoning or specific situation to then draw conclusions overall.

The scientific approach is identical to an authentic assessment. The essence of it is that the process of students' learning can be measured by assessing attitudes, performance assessment, self-assessment, peer assessment and portfolio assessment. In this case it would be emphasized in the assessment of the portfolio (Sani, 2014: 201). Assessment of the portfolio is an assessment that is done by comparing the work of learners with the criteria that have been put. Through a portfolio, assessor could know the progress of learners from time to time (Anita, 2006; 85). This is reinforced by the statement Winarno (2013: 223) stating that a continuous assessment, Portfolio assessment is based on a collection of information that shows the development of the ability of learners within a specific period.

The Law on National Education System No. 20 of 2003 states that "The national education has had the goal to develop the skills and character development and civilization of the nation's dignity in the context of educating the nation and develop students' potentials to become a man of faith and fear of Almighty God, to become noble, healthy, knowledgeable, skilled, creative, independent, and to be citizens of a democratic and responsible ". To achieve the ideals of the national education, the curriculum sector in educational institutions has to contain competencies for each level of education that has been outlined in a structure on each subject. One of the subjects that is considered as capable of building a national educational goal is Citizenship Education (Civics).

Citizenship Education Learning is directed to carry out the rights and obligations of citizens to become smart, skillful, and have a good character at the same time develop the ability to think critically, rationally, and creatively. While, the purpose of civic education lesson is that students have the following capabilities: (a) critical thinking, rational and creative in responding to the issue of citizenship; (B) participating actively and responsibly, and act intelligently in the activities of the society, nation and state, as well as anti-corruption; (C) developing positively and democratically to shape themselves based on the characters of Indonesian society in order to live with other nations; (D) interacting with other nations in the international arena directly by utilizing information and communication technology (Winarno, 2013).

Children at the elementary school level in the formation of cognitive structures are contextually and conceptually very much in need of utilizing learning resources. In implementing the concept of learning, it can be made happen through learning objects that are concrete and abstract as a learning resource. Because of the process through the use of learning resources students are able to develop the ability to think in divergence Abstract objects and concrete objects as a source of students' influence students' learning outcomes. The results of student learning are not limited to knowledge as measured using the test and the extent to which students can understand the material being studied. Susanto (2013) argues that the meaning of learning outcomes, ie the changes that happen to students, both involving

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cognitive, affective, and psychomotor is as a result of learning activities. To determine whether learning outcomes have been achieved in accordance with the desired destination, it can be known through evaluation.

From the observations conducted on December 6, 2014, in teaching students, teachers tended to focus on her teaching (teacher centered) it is in the contrary to the flow of constructivism which emphasizes the process in teaching students. Besides, the lack of the use of media in learning will slow students in understanding the material provided. In accordance with Peaget's learning theory (1964), children at primary school age are in the concrete operational stage. At this stage, the child has had the capacity to think logically, but only with objects that are concrete.

The provision of opportunities for students to be more active in learning (student centered) will make learning more meaningful. In elementary school education, children are in the concrete operational stage, teachers should prepare media and optimize the use of media in learning so that students find it easier to accept and understand the material provided by the teacher to achieve the objectives of learning, especially learning Citizenship Education. Browsing the existing problems through a process of observation that has been carried out to doing development of innovation is needed in teaching students. The essence of this, the authors are interested in doing a study entitled "The Effect of Scientific Approach Based on Portfolio Assessment towards the Learning Outcomes of Civic Education of the Students Grade V Viewed from the Tendency of Observing Objects on Theme 7 Sdn 4 Ubung".

The purposes of this study were (1) To determine the influence of the scientific approach to portfolio assessment based on learning outcomes of Civics in grade V in terms of the tendency of concrete objects observed on the theme of the history of civilization of Indonesia in SDN 4 Ubung. (2) To determine the influence of the scientific approach to portfolio assessment based on the learning outcomes of Civics grade V in terms of the tendency of an abstract object observed on the theme of the history of civilization of Indonesia in SDN 4 Ubung. (3) To determine differences in scientific approach to portfolio assessment based on the learning outcomes of Civics in grade V in terms of the inclination of the object observed on the theme of the history of civilization of Indonesia in SDN 4 Ubung.

Method

Basically, this study is aimed at determining the influence of the scientific approach to portfolio assessment based on the learning outcomes of Civics in grade V in terms of the inclination of the object observed on the theme of the history of civilization of Indonesia, but in this study, there are external variables that take effect in the formation of the dependent variable. Thus, the experimental results that are dependent variable is not solely influenced by the independent variables. Therefore, the variables used in this study design is a pre-experiment (Pre-Experimental design). The forms of pre-experimental design used is a post-test Prates- Design Group Static (The Static Group Pretest-Posttest Design) Sukmadinata (2010). In this design, there are two groups that were given different treatment in similar groups

The stages in this study include, the early stage of experimental research activities to schools that included submitting a letter of request for permission to carry out research to the school. After obtaining permission to conduct the study, researchers conducted observations in the classroom and conducted interviews to students and classroom teachers who taught in grade V with the purpose of (a) carrying out the initial observation; (B) analyzing the curriculum, syllabus and preparing lesson plans; (C) preparing implementation schedule of the research. During the implementation phase it was done by adjusting the school schedule of SD N 4 Ubung who became the experimental group and the control group. The implementation of experiments was carried out through the following stages: (a) activity test instrument; (B) data collection activities were carried out with the details of 7 sessions, which consisted of 6 times of learning and 1 meeting of posttest; (C) Implementation of the learning was carried out in accordance with the scenarios that had been planned by applying a scientific approach based portfolio assessment in terms of the object being observed. The data collection of learning outcomes were measured by using regular multiple-choice achievement test (PGB) four options were taken at the end of the meeting after the experimental group and the control group got the treatment. After going through the process of collecting data result of learning on the subjects of Civics as measured by regular multiple-choice achievement test (PGB) with four options prior to the analysis, there would be an implementation of various test prerequisites, namely, normality test of data distribution, and test of homogeneity of variance with the aim at determining the feasibility of the obtained data and moved on to the next stage of hypotheses testing.

The population is a set of data that has the same characteristics and becomes the object. Darmadi (2011) states that "the population is the whole or a set of objects with the same characteristics, the

population may consist of people, objects, events, time, and place of the same nature and characteristics". The population in this study was all students of grade V SDN 4 Ubung. The sample in this study was the students of grade V SDN 4 Ubung. The samples in the study were chosen by conducting a random sampling of classes. Random sampling is a sampling technique that was carried out in two phases: (a) Determining the sample that was done randomly through lotteries to select an experimental class and control class whose equality have been tested thoroughly; (B) The second stage randomization was performed at grade level because no randomization of individual level could be done.

The step of determining the class as an experimental group and a control group was done to test the equivalence of each class. The data analyzed in a test of equality were the acquisition value of general tests in the first semester of the school year of 2014/2015. The tests were carried out with different test equality mean (t-test) assisted with the program of Microsoft Excel 2007 for Windows. The testing criteria, if Ho was rejected and Ha would be accepted, it meant that the groups were not equal. If Ho was accepted, Ha would be rejected so that the groups were similar. From these, it was obtained that t distribution table at significant level () 5% with degrees of freedom df = (n1 + n2 - 2).

Based on the table of the group that learned with the scientific terms of concrete objects χ^2tabel value at significance level of 5% ($\alpha = 0.95$) and degrees of freedom (df = 6-1 = 5) was 11.07 and analytical results χ^2hitung = 3.49 so χ^2tabel> χ^2hitung, then the distribution of data was normal, while the group that learned with the scientific terms of abstract objects χ^2tabel value at significance level of 5% ($\alpha = 0.95$) and degrees of freedom (df = 6-1 = 5) was 11.07 and analytical results χ^2hitung = 7.18 so χ^2tabel> χ^2hitung, then the distribution of data was normal.

Based on the Ftable value at significance level of 5% with degrees of freedom (df = 30-1 = 29 numerator and denominator df = 30-1 = 29) was 1.85, and the results of the analysis of F = 1.59, because Fobserved <Ftab then the data were homogeneous, Because the examination score of the group that learned with the scientific terms of concrete objects and groups that learned with scientific terms of abstract objects were normally distributed and homogeneous, it was followed by an equality test using t-test. Based on the ttable value at significance level of 5% with degrees of freedom (df = 30 + 30-2 = 58) was 2.00 and the analytical results were t = 1.83, so tobserved <ttable (1.83 <2.00), which meant that these two classes were equivalent. Thus, the value of tobserved <ttab namely 1.83 <2.00 so h0 was accepted and ha was rejected. In conclusion the samples of VA and VB classes in SDN 4 Ubung match, then the results appeared randomly VA class as a class that would be learning with the scientific terms of concrete objects and VB would be treated with scientific terms of abstract objects.

This study involved several variables that included the independent variables that were variables that affected. The independent variable is one or more of the variables that influenced purposefully the dependent variable, (Court, 2011). The independent variables in this study were a scientific approach to portfolio-based assessment in terms of the object being observed. The dependent variable was the variable that was closely related to the independent variable. Related to the above Sugiyono (2012) states that the dependent variable is the "variable that is affected or which becomes the cause, because of the independent variables". The dependent variable in this study was the result of learning civics of the students.

In this study, the operational definitions of each variable were presented as follows (1) approach scientifically based assessment of the portfolio in terms of concrete objects was a learning approach in its implementation providing an opportunity for students to demonstrate a property of objects or object attributes, everything that was real could be used to channel message from the sender to the receiver so that it could stimulate the mind, feelings, concerns and interests of students, a concrete object was a tool that could provide direct experiences to the user. Concrete objects were able to give real meanings to students in the form of visualizations to build knowledge through activities to observe, ask, try, reason and communicate as a portfolio to determine the development of students' learning outcomes. The following steps: observe, ask, try, reason, communicate. (2) The scientific approach which was based on assessment of the portfolio in terms of abstract objects were scientific learning that emphasized process more than the results through abstract media that put more emphasis on moral values, aesthetic and intangible objects appeared and tended to be difficult to determine the sample and non-example of objects that were observed so that the necessary models or illustrations that represented examples and non-example were realized with a work. The steps were as follows: observing, asking, trying, reasoning, and communicating. (3) The learning result is an achievement of learning achieved in implementing the rights and obligations of smart, skillful, and good- character citizenship at the same time developing the ability of having critical, rational, creative thought and accomplished by students in learning activities, as well as the occurrence of a change and the formation of students' behavior that included cognitive, affective and psychomotor achieved by students in a given time period. In the data collection of civics learning outcomes instruments that were used operationally were achievement test in the form of multiple choice

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with four options, namely (A, B, C, D) given at the end of the learning process. The scoring on the test results in civics learning that students acquired would be correct answer scored 1 and the students who answered incorrectly would be given a score of 0.

The data collected in this study included the data of learning outcomes of Civics. Data collection activities would be implemented in grade V semester 2 SD N 4 Ubung who became the members of the sample. The data required in this study were collected by the method of test, which was an objective test in the form of multiple choice functioned to collect data on students' cognitive.

The Civics learning outcomes measurement process used was a multiple choice objective test (multiple choice) done by choosing the correct answer from the four options given that were (A, B, C, D). To get a good test of the material assigned to the indicators of achievement, it was set forth in the form of a lattice or blueprint. The preparation of grating intended to avoid formulating research instrument that deviated from a predefined indicator that was grating the achievement test of Citizenship Education (Civics). A test was said to have validity if its results was in accordance with criterium or appliance appeal. Validity meant that the instrument could be used to measure what should be measured, (Sugiyono 2012). The validity of the objective test was determined through an analysis item using the biserial point coefficient correlation (RPBBI). The values obtained were then compared with the values obtained from table r if r count> r table then in the category of valid. From the 45 questions that were tested for validity, different power test, the level of difficulty of the test items and test questions were categorized reliable, it was feasible to use in the post-test as many as 30 questions.

Price mean (M), standard deviation (SD), the mode (Mo), and the median (Me) each variable was studied. For this purpose, before looking for prices that were required, frequency distribution tables and histograms were made in advance for each study variable. The table was made by making the class interval with the rules Sturges (koyan, 2011). The normality test was used to determine whether the distribution of score data of Civics learning outcomes of students in each group was normally distributed or not, chi-square analysis was used. The criteria of the test were if χ^2 hit $<\chi^2$ (1-a) (k-3), then h0 was received (failed to be rejected) which meant the data were normally distributed. While the level of significance was 5% and the degrees of freedom (df) = (k - 1).

Homogeneity test was done to show that the variation in the hypothesis testing actually occurred as a result of differences between groups and not as a result of the difference in the group. Test of homogeneity of variance for both groups used F test criteria of testing to determine that the data had a homogeneous variance that was, if $(1, 1)$ $1-2-\geq$ hit nn FFα then the sample was not homogeneous, and if $(1-1, 2-1) <$ hit nn FF α sample was homogenous. The tests were conducted at a significance level of 5% with a degree of freedom for the numerator n1 - 1 and the degree of freedom for the denominator n2 - 1. The statistical test used in this study was the mean difference test (t-test). With the testing criteria, H0 was rejected if hit tables t $\geq$ t, where the table t obtained from t distribution table at a significant level (α) 5% with degrees of freedom df = (n1 + n2 - 2) and Ha was rejected if hit tables t $\leq$ t.

Results and Discussion

The data of this study described the average, median, mode, standard deviation, variance, minimum, maximum, and range of learning outcomes data of Civics of students for classes that followed the learning scientific approach based on assessment of the portfolio in terms of concrete objects and classes following learning with scientific approach based on assessment of portfolio in terms of abstract objects. The description data of students' learning outcomes for Civics described the average, median, mode, standard deviation, variance, minimum, maximum and range was done with the help of spreadsheets Microsoft Office Excel 2007. The average value of students' learning outcomes of the test post for Civics for the group which followed a scientific approach learning based on portfolio assessment in terms of concrete objects was 84.54 with variants of 113.71 and a standard deviation of 10.6. While the average value of the learning outcomes Civics post test of students from a group that followed scientific approach learning based on portfolio assessment in terms of an abstract object had a variant of 77.36 with a standard deviation of 184.38 and 13.38. From these data, it was indicated that the group that followed a scientific approach learning based on portfolio assessment in terms of concrete objects had an average value of learning outcomes of Civics higher than the group that followed a scientific approach learning based on portfolio assessment in terms of abstract objects.

Analysis prerequisite test included normality test of data distribution and homogeneity of variance. Data normality test was performed on two groups of data, including data from the group that followed a scientific approach learning based on portfolio assessment in terms of concrete objects and data from the group which followed a scientific approach learning based on portfolio assessment in terms of abstract objects. This test was performed to determine the distribution of learning outcomes of Civics

scores to be used in hypothesis testing. Data distribution normality test were analyzed using Chi-square test (2χ) at the 5% significance level and degrees of freedom db = k-3. For Chi-Square test steps (2χ) for the group followed a scientific approach learning based on portfolio assessment in terms of concrete objects and the group that followed a scientific approach learning based on portfolio assessment in terms of abstract objects.

From the results of calculation on concrete objects, it was seen that for 2χ with a significance level of 5% was obtained 2χ Tabel = 11.07 and 2χ hitung = 4.76. Because 2χ hitung <2χ table the data of the Civics learning outcomes in the group that followed a scientific approach learning based on portfolio assessment in terms of concrete objects was said to be normally distributed and counting on abstract objects seen for two χ with significance level of 5% obtained 2χ Tabel = 11.07 and 2χ hitung = 8.94. Because 2χ hitung <2χ Tabel the data of learning outcomes of Civics in the group that followed a scientific approach learning based on portfolio assessment in terms of abstract objects was said to be normally distributed.

The variants homogeneity test was based on learning outcomes data that included data of Civics from a group that followed a scientific approach learning based on portfolio assessment in terms of concrete objects and that followed a scientific approach learning based on portfolio assessment in terms of abstract objects. The amount of each unit of analysis was 30. Variants homogeneity test was using F test with the test criteria Fhitung <Ftabel sample was homogenous. The tests conducted at a significant level of 5% with a degree of freedom for the numerator n1 - 1 (30-1 = 29) and the degree of freedom for the denominator n2 - 1 (30- 1 = 29). The homogeneity of variance test results showed that Fhitung <Ftabel. This meant that the variance between classes learning model was homogeneous. The study hypothesis being tested did not have any difference between the Civics learning outcomes of students who took a scientific approach learning based on portfolio assessment in terms of concrete objects with a group of students that followed a scientific approach learning based on portfolio assessment in terms of abstract objects. The statistical test used in this study was the mean difference test (t-test). With the testing, criteria were H0 if $(1-\alpha)$ t $\geq$ t hit, where $(1-\alpha)$ t obtained from t distribution table at a significant level (α) 5% with degrees of freedom df = (n1 + n2 - 2). To test the hypothesis t-test was used.

Table 1. Hypothesis Testing

Class	Variance	N	db	T table	T hitung	Conclusion
Scientific learning viewed from concrete objects	113,71	30				
			58	2,00	2,29	H0= Rejected
Scientific learning viewed from abstract objects	184,38	30				

Based on table 01, it appeared that thitung was greater than ttable ie 2.29> 2.00 on the degree of freedom of 58. With these results it could be concluded that H0 which stated "there was no significant difference between the group that followed a scientific approach learning based on portfolio assessment in terms of concrete objects with the group that followed a scientific approach learning based on portfolio assessment in terms of abstract objects ", was rejected and the one stating "there was a significant difference between the group that followed a scientific approach learning based on portfolio assessment in terms of concrete objects with the group that followed a scientific approach learning based on portfolio assessment in terms of abstract objects ", was accepted. The discussion of the results of research and hypotheses testing regarding the learning outcomes of Civics of grade V in the 2nd semester on theme 7 (the history of civilization in Indonesia) among students that followed a scientific approach learning based on portfolio assessment in terms of concrete objects and students that followed a scientific approach learning based on portfolio assessment in terms of abstract objects.

The effect of scientific approach based on portfolio assessment towards the learning outcomes of civic education of the students of grade V viewed from the tendency of observing concrete objects, according to Daryanto (2014: 51) Scientific approach learning is a learning process that is designed so that learners can actively construct the concept, law or principle "discover". The application of scientific approaches in the learning process involves skills such as observing, classifying, measuring, predicting, explaining, and concluding. Scientific approach must be supported by the assessment of relevant, portfolio assessment is one of the assessments that provides opportunities for students to know the progress obtained during the learning process and helps students in acquiring learning resources that are relevant, while for teachers, assessment of the portfolio can be used as a decision-making for results which is based

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on the students' learning process and the learning outcomes that have been done. From these activities, students gain firsthand experience of communicating what has been learned. Studied from theories, learning with a scientific approach, which is based on portfolio assessment in terms of concrete objects is a learning approach in which its implementation provides opportunities for students to build knowledge through activities to observe, to question, to reason, to try and communicate as a portfolio to determine the learning progress of students through the work, viewed from concrete objects which is a concrete concept showing a trait of objects or object attributes, everything that is real can be used to deliver a message from the sender to the receiver so that it can stimulate the mind, feelings, concerns and interests of students, concrete objects are tools which can provide direct experience to the users. Concrete objects are capable of giving real meaning to the students in the form of visualization. Students that learned with this approach were easier to understand the material contained in the theme 7 of Civics because the learning that took place provides an opportunity for students to use the tools in a concrete form that can visualize media. Thus, learning with a scientific approach which is portfolio-based assessment in terms of concrete objects theoretically affected the results of learning Civics.

The effect of scientific approach based on portfolio assessment towards the learning outcomes of civic education of the students of grade V viewed from the tendency of observing abstract objects, in the previous sub, it has been explained by the notion of a scientific approach, when seen from the definition of scientific approach, it can be collaborated with various learning media. The scientific approach based on a portfolio assessment in terms of the abstract objects theoretically can influence students' learning outcomes. From these activities, students gained firsthand experience of communicating what has been learned. Learning with a scientific approach, which is based on portfolio assessment in terms of abstract objects is a learning approach in which its implementation provides opportunities for students to build knowledge through activities to observe, to question, to reason, to try and communicate as a portfolio to determine the learning progress of students through the work viewed from the abstract object which is a medium that puts more emphasis on moral values, aesthetic, and intangible objects that appear and tend to be difficult to determine the examples and the non-examples of the objects observed so that the models or illustrations that represent examples and non-example are needed. Thus, students were required to be able to think to a higher cognitive level.

Learning with a scientific approach with portfolio-based assessment in terms of concrete objects and learning with a scientific approach with portfolio-based assessment in terms of abstract objects, which were applied in this study showed the effect on learning outcomes of Civics on the theme 7. The influence could be seen from the post-test learning outcomes of Civics from the students. Descriptively, the group of students who followed a scientific approach learning based on portfolio assessment in terms of concrete objects had a higher learning outcome than the group of students who followed a scientific approach learning based on portfolio assessment in terms of abstract objects. Based on the hypothesis testing indicated by Table 4.5 it indicated that tobserved 2.29> 2.00 ttabel. Statistically, the results of this study indicated that students who took a scientific approach learning based on portfolio assessment in terms of concrete objects and a scientific approach learning based on portfolio assessment in terms of abstract objects on the theme 7 had significant differences in learning outcomes of civics with the significance level 5%. The scientific approach learning gave students the chance to develop and find their own knowledge so that the learning that happened had a high significance.

In this study, two different treatments between the two classes were used as research subjects. The classes included a class that that followed a scientific approach learning based on portfolio assessment in terms of concrete objects and a class that followed a scientific approach learning based on portfolio assessment in terms of abstract objects. Concrete objects are anything real that can be used to deliver a message from the sender to the receiver so that it can stimulate the mind, feelings, concerns and interests of students so that the learning process can be run more effectively and efficiently towards the achievement of the desired objectives (Yoyon, 2014). The examples of concrete properties are round, square, blue, red, straight, and others. Herron (1977) defined abstract concept as the concept of the critical attributes and attribute variables that are difficult to understand and difficult to analyze, so it is difficult to find examples and the non-examples. The concepts such as these are relatively difficult to be taught/ learned because it is impossible to communicate critical information about the attributes of this concept through direct observation. Therefore, models or illustrations that represent the examples and the non-examples are necessary.

Based on the above discussion, it could be concluded that the learning with scientific approach which was based on portfolio assessment in terms of concrete objects had the advantage that during the learning process the students were encouraged to understand the material with the concept, which was relevant to the use of concrete media on learning, so that learning became active, creative, effective, and contextual compared to the learning with scientific approach which was based on portfolio assessment in

terms of abstract objects which only emphasized learning to use imagination or abstract media that could not be visualized by students, so that students were more difficult to understand the material being studied. It stated that the learning with scientific approach which was based on portfolio assessment in terms of concrete objects had a significant difference from the learning with scientific approach which was based on portfolio assessment in terms of abstract objects that were applied to the second semester of the fifth-grade students to the learning outcomes of Civics on theme 7.

Conclusions

The result showed that students that learned with scientific approach which was based on portfolio assessment in terms of concrete objects had an average of 84.54 of civics learning outcomes. The result showed that students that learned with scientific approach which was based on portfolio assessment in terms of concrete objects had an average of 77.36 of civics learning outcomes.

There was a significant difference between the Civics learning outcomes of the students that learned with scientific approach which was based on portfolio assessment in terms of concrete objects and the students that learned with scientific approach which was based on portfolio assessment in terms of concrete objects in Class V in the 2nd semester of 2014/2015 academic year. The results showed tobserved> ttable ie 2.29> 2.00 at the 5% significance level with 58 degrees of freedom so that h0 was rejected and ha was accepted, supported by the difference in the average score obtained between the group that received scientific approach treatment which was based on portfolio assessment viewed from concrete objects, namely 84.54 and the following group that received scientific approach treatment which was based on portfolio assessment viewed from abstract objects that was 77.36. Thus it could be concluded that there was an effect of scientific approach which was based on portfolio assessment towards the learning outcomes of Civics in class V in terms of the inclination of the object observed on the theme 7 in SDN 4 Ubung.

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