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THE IMPLEMENTATION OF ONLINE PROJECT-BASED LEARNING MODEL WITH A COMBINATION OF COLLABORATIVE LEARNING TO IMPROVE THE LEARNING RESULT OF DIGITAL PHOTO COMPOSITION

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ABSTRACT

The purpose of this research was to improve the learning results of Digital Photo Composition through the implementation of the Online Project-Based Learning model with a combination of Collaborative Learning on Multimedia students of vocational high-school at Takeran. This research was Classroom Action Research (CAR) with the cycle model of collaboration between researcher dan teacher. This survey was conducted in two cycles with each cycle consisting of planning, acting, observing, and reflecting. These subjects were students of Multimedia eleventh grade of vocational high-school at Takeran, which consisted of 22 students. The data collection technique was a test, observation, interview, and documentation. The data validity tests of the research were a triangulation of source and triangulation of method. The data analyzed technique was quantitative-descriptive analysis technique. Based on the result of this survey, it could conclude that implementation of the Online Project-Based Learning model with a combination of Collaborative Learning can improve learning result at Multimedia eleventh grade of vocational high-school at Takeran. It proved by the increase of average scores in the cognitive test for each cycle. The average value of pra-cycle was 69,82 with the completeness of 22,73% or 5 of 22 students. While on the cycle, I was 77,5 with the completeness of 63,64% or 14 of 22 students. The average score of cycle II was 83,95 with the integrity of 81,82% or 18 of 22 students.

Keywords: learning result, Online Project-Based Learning model, Collaborative Learning, digital photo composition.

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1. INTRODUCTION

Education is a conscious and systematic effort, undertaken by people who are responsible for influencing students to have nature and character according to the ideals of scholarship [1]. Therefore knowledge is expected directed to make students able to reach the process of maturity and independence. The quality of education cannot separate from the role of teachers in implementing the learning process in the classroom. Teachers should be able to create a fun, creative and dynamic learning environment. But in fact, the process of learning more using an expository strategy that emphasizes the delivery of material by teachers. It leads to teacher-centred learning. The success of the teaching and learning process in the classroom can see from the result of the students' achievement in accordance with the school standard, if the value obtained by students is appropriate or more than the rule of the school, it can be said that the teaching and learning process is successful and vice versa, if the value obtained by students is not appropriate or less from the school standard it can be said the teaching and learning process has not been successful.

Based on pre-test results conducted by researchers in August 2017 showed that there were only five students (22.73%) who scored above the Minimum Completion Criteria subjects Digital Photo Composition in class XI Multimedia 2 of vocational high-school at Takeran, which is 80. While 17 students (77.27%) scored less than KKM. The average grade is also below the KKM, which is 69.82. The data shows that the

results of learning in the class XI Multimedia 2 of vocational high-school at Takeran are still low. Therefore, there needs to be action to overcome the problem.

To realize the learning that can lead the students to achieve the goals that have set, it takes a fun learning and attracts the attention of students. Of the many existing learning models, researchers suggest an alternative model of learning to improve student learning outcomes is through the implementation of Online Project-Based Learning model with a combination of Collaborative Learning.

Widespread use of the internet can be massive potential for the development of learning with online systems. Learning with an online system allows students to access information flexibly without time and space.

On the other hand, project-based learning (Project Based Learning) has tremendous potential to create a more engaging and rewarding learning experience for students [2] Project Based Learning is a learning model that uses schemes/activities as a medium. In project-based learning, students will be encouraged more actively in education. To involve the active participation of students requires an approach that provides opportunities to lead to the success of learning practices. Through Collaborative Learning blend can provide a conducive environment for students to learn.

Based on the above problems, the researcher is interested in conducting a class action research entitled "The Implementation of Online Project-Based Learning Model with a Combination of Collaborative Learning to Improve Learning Results of Digital Photo Composition on Multimedia Student of vocational high-school at Takeran".

2. RESEARCH METHOD

The research conducted at vocational high-school at Takeran located in Kuwonharjo village, Takeran district, Magetan district, East Java. The subjects of this study were students of class XI Multimedia 2, which amounted to 22 students.

This research is a Classroom Action Research (CAR). Sources of data in this study were teachers, students, observers, and documents. The data collection technique used is interview, observation, test, and documentation. The data variance test uses triangulation of data or source and method triangulation. Triangulation of this source to test the credibility of data done by checking the data that was obtained from several sources [3]. Triangulation method directs a researcher to collect similar data but by using different data collection methods.

Data analysis techniques used to analyze data that has been successfully collected using quantitative descriptive methods.

The indicator of the success of this study is the increase of learning outcomes 80% of the number of students obtaining the value of ≥ KKM is 80.

3. RESULT AND DISCUSSION

3.1. RESULT

The researcher performs a pretest before acting. Pra-cycle test conducted on August 26, 2017. Based on pre-cycle test results obtained data showing that the result cognitive value is low. Pra-action test results held on August 26, 2017, showed that there were only five students (about 22.73%) of the 22 students who scored above the KKM, which was ≥80.

The results of cognitive values can see in table 1 below.

Table 1. Frequency Distribution of Pra-Cycle

Number	Value Interval	Frequency (f_i)	Middle value (x_i)	$f_i \cdot x_i$	Percentage Relatively
1	50-57	2	53.5	107	9,09%
2	58-65	7	61.5	430.5	31,82%
3	66-73	4	69.5	278	18,18%
4	74-81	6	77.5	465	27,27%
5	82-89	3	85.5	256.5	13,64%
Amount		22	347.5	1537	100%
Average Score		1536 : 22 = 69,82			
The highest score		88			

The lowest score	50	
Students complete	5	22,73%
Students haven't completed	17	77,27%

Based on table 1 students who scored under the KKM as many as 17 students or 77.27% and students who get the value of ≥80 is as many as five students or 22.73% of 22 students. It can conclude that the results of cognitive learning subjects Digital Photo Composition on students of class XI Multimedia of vocational high-school at Takeran are still low. Therefore, the need for action to overcome the small learning result of Digital Photo Composition is by applying Online Project-Based Learning model with a combination of Collaborative Learning. Through the implementation of this learning, the model is expected to improve the learning results of Digital Photo Composition in the students of class XI Multimedia of vocational high-school at Takeran.

After the implementation of the action on cycle I by applying Online Project-Based Learning model with a combination of Collaborative Learning, students' cognitive value has increased.
It can be seen in Table 2 as follows.

Table 2. Frequency Distribution of Cycle 1

Number	Value Interval	Frequency (f_i)	Middle value (x_i)	$f_i \cdot x_i$	Percentage Relatively
1	65-70	5	67.5	337.5	22,73%
2	71-76	3	73.5	220.5	13,64%
3	77-82	10	79.5	795	45,45%
4	83-88	2	85.5	171	9,09%
5	89-94	2	91.5	183	9,09%
Amount		22	397.5	1707	100%
Average Score		1705 : 22 = 77,5			
The highest score		94			
The lowest score		65			
Students complete		14			63,64%
Students haven't completed		8			36,36%

Based on the data in table 2 above, it can see that there is an increase in cognitive value in cycle I. In cycle I of 22 students there are 14 students or 63.64% students who get the value ≥80 while eight students or 36.36% of students still get the value under KKM. This study continued on cycle II because of the achievement indicator in this research that 80% of students have the amount of ≥80 has not achieved.
After the action on cycle II by applying Online Project-Based Learning model with a combination of Collaborative Learning, students' cognitive value has increased.
It can see in table 3 below.

Table 3. Frequency Distribution of Cycle 2

Number	Value Interval	Frequency (f_i)	Middle value (x_i)	$f_i \cdot x_i$	Percentage Relatively
1	70-75	4	72.5	290	18,18%
2	76-81	7	78.5	549.5	31,82%
3	82-87	3	84.5	253.5	13,64%
4	88-93	2	90.5	181	9,09%
5	94-99	6	96.5	579	27,27%
Amount		22	422.5	1707	100%
Average Score		1847 : 22 = 83,95			
The highest score		99			
The lowest score		70			
Students complete		18			81,82%

Students haven't completed	4	18,18%

Based on the data in table 3 above, be aware that there is an increase in students cognitive value in cycle II. In period II of 22 students, there are 18 students or 81.82% students who get the value of ≥80 while four students or 18.18% still get the value under the KKM. The completeness in the second cycle reached 81.82% so it can say the indicator of achievement that has targeted at this research has concluded.

3.2. DISCUSSION

Based on the data table from the research results can be seen that the students' learning outcomes have increased from pre-cycle, a cycle I, a cycle II, and cycle III. Then it can be concluded that through the implementation of the Online Project-Based Learning model with a combination, Collaborative Learning can improve student learning outcomes. This evidenced by the development of students' cognitive value from pre-cycle, a cycle I, cycle II, and III as listed in table 4 below.

Table 4. The Development of Cognitive Value

Information	Pra-Cycles	Cycle I	Cycle II
The lowest score	50	65	70
The highest score	88	94	99
Average Score	69,82	77,5	83,95
Percentage of completeness	22,73%	63,64%	81,82%

From the table 4 data above, it can conclude that at the lowest pra-cycle value is 50 while the highest value is 88 with an average grade of 69.82 and learning mastery of 22.73%, is as many as five students complete or get a value of ≥80.

In action cycle-I, by applying the learning model, Online Project-Based Learning with a combination Collaborative Learning the lowest score is 65 while the highest score is 94 with an average of 77.5 and learning completeness increased to 63,64% or 14 students complete.

In action cycle II by applying the learning model, Online Project-Based Learning with a combination Collaborative Learning the lowest score is 70 while the highest value is 99 with an average of 83.95 and learning completeness increased to 81.82% or 18 students complete.

Based on observation data and the results of interviews conducted with teachers and students of class XI Multimedia 2 after the implementation of the learning model can be concluded that the application of Online Project-Based Learning model with a combination Collaborative Learning can improve the learning result of Digital Photo Composition in the students of class XI Multimedia of vocational high-school at Takeran.

4. CONCLUSION

Based on the results of classroom action research that has been implemented in two cycles by applying Online Project-Based Learning model with a combination Collaborative Learning, it can be concluded that the implementation of Online Project-Based Learning model with a combination Collaborative Learning can improve the learning result of Digital Photo Composition in students of XI Multimedia 2 of vocational high-school at Takeran. This evidenced by the increase the value of student learning outcomes is on pre-cycle, students cognitive average score of 69.82, in cycle I the average grade of students increased to 77.5, and in period II it rises again to 83.95. Students learn mastery level on pra-cycle only 22.73% or as many as five students complete while 17 students or 77.27% students have not completed with KKM that is ≥80.

In cycle, I percentage of mastery increased to 63.64% or 14 students completed and 8 or 36.36% of students have not completed. On the second period Increased again to 81.82% or as many as 18 students complete while four students or 18.18% of students have not finished.

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