Influence of The Problem-Based Learning Assessment of Audiovisual Media Towards The Results of Students Learning in The Economic Lessons of The Xi Class of High School

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Abstract :*This study aims to determine the significant differences in student learning outcomes between students who are learned through the model of Problem Based Learning Assisted Audio Visual Media with students who learned through Conventional Learning in Class XI SMA Negeri 10 Surabaya Lesson Year 2017/2018. This type of research is classified as quasi-experimental research with the design of Nonequivalent control group design. By using experimental class (application of learning model of Problem Based Learning Assisted Audio Visual Media) and control class (conventional learning). The subjects were XI MIA 1 students as an experimental class and XI MIA 2 as control class in SMA Negeri 10 Surabaya. Methods of data collection are tests, observation sheets, and documentation. The analysis technique used is t-test. The result of data analysis shows that there is a significant difference of learning result XI between students who are learned through the model of Problem Based Learning (PBL) learning with audiovisual media with students who learned through conventional learning. Hypothesis test results obtained t-test results 0.000 <0.05 then it can be said ha accepted ho rejected Based on these differences can be concluded that there is a significant effect of learning outcomes XI between students who were learned through the model of Problem Based Learning (PBL) Assisted Audio Visual Media with students are taught through Conventional Learning in Class XI SMA Negeri 10 Surabaya Lesson Year 2017/2018.*
Keywords:*learning Problem Based Learning. AudioVisual. Learning Outcomes*

I.   Introduction

"Education is the maturation of students in order to develop their talents, potential, and skills" (Daryanto, 2011: 1). Through education, someone is able to build attitudes, behaviors and knowledge and skills possessed, which later can be developed in the learning process. "Learning is a process of interaction between students and teachers and learning resources in a learning environment", (Rusman, 2014: 3).

According to Soyomukti (2008: 30) that true education is in charge of transmitting ideas, knowledge, ways of thinking, insight and technical abilities in children and the younger generation. Useful education is education that spreads ideas and true knowledge, insight and technical abilities that are useful for that generation and society. So it is very important for us to fully understand what the true meaning of education is and how a teacher educates his students to become someone who has a character that is full of equality, democracy, and justice.

Therefore the government seeks to improve the education system in Indonesia, for example by changing curriculum from KTSP to K13 curriculum, and K13 being revised to become Kurnas (National Curriculum) or what can be known as K13 revision, which is now being applied in all schools. Curriculum changes make schools such as principals and teachers confused in applying the methods, models, techniques and learning media used in the curriculum which are required by students to be more active than teachers.

Components that work in the education system include the context of input, process, and output (Purwanto, 2014: 21). So to improve advanced education and quality factors that influence one of them is the learning process. The learning process is a process that intentionally changes student behavior with learning objectives and planning. Learning in the broadest sense is all that a person does in interaction with the environment that causes behavior change (Purwanto, 2014: 23).

Where is the learning process and assisted with audiovisual media to support success in the learning process. Based on these statements, we need an innovation in learning that can help students in mastering the material. The facts in the field mention the results of research conducted by Ahmad Irfan (2016) entitled

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Perbedan Audio Visual Media and Not Audio Visual on Social Sciences Motivation and Learning Outcomes of Grade IV students with the result that audio-visual media influence student learning outcomes.

The selection of methods and learning models that are suitable with the objectives of the revised 2013 curriculum used and the potential of students in the basic skills and skills that must be possessed by a teacher. To create interesting learning, a good effort and must be done by the teacher is to choose a learning model that is in accordance with the learning material to be taught. A teacher must be careful and careful in choosing the learning model that will be used, this effort is carried out only to achieve the desired goal, namely to improve optimal learning outcomes.

The reality is in economic learning in class XI, where the K13 curriculum of students is required to be more active. the learning model applied by some teachers with the lecture model, but the teacher also inserts other learning models so that students are not passive and practice questions in providing economic learning, during the learning process students focus on the teacher. based on observations in class XI IPS at SMAN 10 Surabaya, the teacher uses the lecture learning model, but the teacher also uses models of group learning so students are not passive. In the learning process takes place when the teacher applies a group learning model, there are some group members who do not participate. Of the 38 students of class XI MIA 1 and 37 students of XI MIA 2 only 13-18 students were actively contributing to learning activities. In the efforts made by the teacher with the selection of appropriate learning models, only in order to improve optimal learning outcomes. According to Purwanto (2014: 48), Learning outcomes are the result of behavioral changes after experiencing the learning process.

Based on the description above, according to researchers of economic subjects, there needs to be a suitable learning model with the help of the right learning model. The learning model that is estimated to be able to overcome these problems is by using the Problem Based Learning (PBL) learning model. "Problem Based Learning (PBL) learning model is a learning model that uses real problems in the delivery of learning materials that involve students working together in groups to solve problems that have been given by the teacher", (Eggen and Don, 2012: 301).

Problem Based Learning (PBL) learning models also have characteristics in learning, namely: (a) Problems become the starting point in learning; b) Problems raised are problems that exist in the real world that are unstructured; (c) Problems require multiple perspectives (multiple perspectives); (d) Problems challenge the knowledge possessed by students, attitudes, and competencies which then require identification of learning needs and new fields of learning; (e) Learning self-direction is the main thing; (f) The use of diverse sources of knowledge, their use, and evaluation of information sources is an essential process in learning; (g) Learning is collaborative, communication and cooperative; (h) Development of skills in problem-solving is as important as mastering the content of knowledge to find solutions to a problem; (i) Openness of processes in learning including synthesis and integration of a learning process; and (j) Learning involves evaluating and reviewing student experiences and learning processes (Rusman, 2014: 232).

Trianto (2009: 96) mentions the Problem Based Learning (PBL) learning model can have a positive impact on the learning process in the classroom because the Problem Based Learning (PBL) learning model has advantages namely (1) Realistic with student life; (2) Concepts according to student needs; (3) Cultivating the inquiry of students; (4) Retention of the concept becomes strong; and (5) Foster problem-solving abilities.

Trianto (2009: 98) Mentioning there are several stages that must be done by the teacher in the application of the Problem Based Learning (PBL) learning model, among others: (1) Student orientation to the problem. The teacher explains the learning objectives, explains the logistics needed, submits phenomena or demonstrations or stories to raise problems, motivates students to be involved in solving selected problems; (2) Organizing students for learning. The teacher helps students to define and organize learning tasks related to the problem; (3) Guiding individual and group investigations. The teacher encourages students to gather appropriate information, carry out experiments, to get explanations and problem solving; (4) Develop and present the work. The teacher assists students in planning and preparing suitable works such as reports, videos and models and helps them to share assignments with their friends; (5) Analyze and evaluate the problem-solving process. The teacher helps students to reflect or evaluate their investigations and the processes they use.

Problem Based Learning (PBL) learning models will be achieved optimally, if in this study combined with learning media. According to Sadiman, et al (2007: 7) "mentions learning media is everything that can be used to channel messages from the sender to the recipient so that it shares thoughts, feelings, attention, and interests". One of the learning media used is using audiovisual media. In addition, the video also does not make users get bored quickly so it will make users curious and follow it. The application of multimedia enables one to develop an interactive learning media that is audiovisual in the hope that it can improve understanding of the material studied by students (Muhammad Munir, 2014). Learning using visual media is an easy-to-use educational media and relatively easy to get. For example, now videos can be searched using computer devices with internet connections on free video provider sites like youtube.com. "According to Bloom (In Mudjono and Dimyati, 2015: 28), learning outcomes include cognitive, affective, and psychomotor abilities. Cognitive

domains are knowledge (knowledge, memory), comprehension (understanding, explaining, summarizing, example), application (applying), analysis (describing, determining relationships), synthesis (organizing, planning, forming new buildings), and evaluation (judging). Affective domain is receiving (accepting attitude), responding (responding), valuing (value), organization (organization), characterization (characterization). Indicators on student learning outcomes include cognitive abilities in the form of student test sheets (Pre-test and Post-test) ".

Based on the description above, the purpose of this study is 1. to describe the differences in learning outcomes of students who use the Group Investigation learning model with students who use conventional learning models on economic subjects of class XI SMA.

II.   Research Methods

This research is quantitative research with an experimental approach. Experimental research is research in which researchers intentionally generate a situation, in other words, experimental research is a way to find a causal relationship between two factors that have intentionally arisen by researchers by reducing or eliminating other factors that can interfere. In this study, researchers compared two different classes, namely the experimental class, and the control class. The experimental class is treated using a learning model of Audio Visual Media-Based Problem Based Learning in learning national income material, while the control class is not treated by using an Audio Visual Media-Based Problem Based Learning model in learning national income material, in terms of control classes using methods conventional.

In this study using Control Group Design "
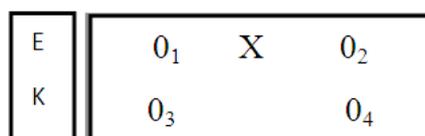
Figure 3.1 Nonequivalent Control Group Design (Sugiyono, 2014: 79)

1.   Research Subjects The subjects in this study were class XI MIA 1 students of SMAN 10 Surabaya in the academic year 2017-2018. Students in class XI MIA 1 as an experimental class and XI MIA class 2 students as a control class.
2.   Data Collection Techniques Data collection techniques in this study include assessment sheets (pre-test and post-test), and documentation).
3.   Data Analysis Techniques
Data analysis in this study was used to determine differences in student learning outcomes in the experimental class using the investigation group learning model and the control class that used learning as usual without action:
1)   Test Instrument
a.   Test the validity of the question
Test the validity of the question that is used in measuring the validity of the item. a question is said to be valid if it has great support for the total score (Arikunto, 2012: 90). The formula for measuring item validity is:

$$r_x \frac{N\sum XY - (\sum X)(\sum Y)}{\sqrt{N\sum X^2 - (\sum X)^2 (\sum Y)^2 - (\sum Y)^2}}$$

Information
r_{xy} = Coefficient of correlation between variables X and variable Y
N = Number of students
X = Score item number question that will be tested for validity.
Y = Total score
a.   Reliability
Reliability test can be used to test the reliability of items. The formula to be used is as follows:

$$r_{11} \frac{2r_{1/2 1/2}}{(1 + r_{1/2 1/2})}$$
$$(Arikunto, 2012: 111)$$

In this study the calculation of question validity, reliability using the SPSS16 application
1)   Analysis of research data on student pre-test results
In quantitative research, the data analysis technique used is clear, which is directed at answering the problem statement or testing the hypothesis formulated in the proposal (Sugiyono, 2015: 333).
a.   Normality test
Normality test used is Chi Square () because to know that the sample comes from a population that is normally distributed. (Sugiono 2013: 107) Populations that are normally distributed are a prerequisite for hypothesis testing. Steps - Steps using the Chi Square test, namely:

1.   Arrange hypotheses
H0: Samples are normally distributed.
Ha: Samples are not normally distributed.
2.   Arrange the pretest value in the frequency distribution table.
3.   Calculate the mean value.

$$\bar{x}\frac{\sum fixi}{\sum fi}$$

(Sudjana, 2005: 67)
Information:
fi = Amount of frequency.
xi = Number of interval classes.
4.   Calculate X^2 with the Chi Squared formula.

$$X^2 = \sum_{i=0}^{k} \frac{(f_{o-f_h})}{f_h}$$

(Sugiono,2013:107)
Information :
X^2 = Chi Squared.
f_o = Frequency observed.
f_h = Frequency that will be expected.
5.   Determining the significance level (α) = 0.05.
6.   Determine dk = (k-1) with k = number of an interval class.
7.   Test criteria are rejected if if $\geq$ (1- α) (k-1).

        Calculation of the normality test in this study used the Kolmogorov-Smirnova test on SPSS16.
b.   Homogeneity Test
The homogeneity test is used to find out that the variances in the population are the same or homogeneous.

2)   Test the Hypothesis
Analysis of research data on student post-test results
a.   T test
$$t = \frac{M_{1-M_2}}{SE_{M1-M2}}$$

(Thoifah, 2015: 97)

Information:
M = Mean (Average in the first and second groups).
SE_{M1-M2} = Combined Error Standard.

III.   Results And Discussion
a.   Question Validity
        Based on the validity test of the question using the SPSS16 application, the results obtained from 26 valid questions were only 20 questions.

b. Question Reliability

Based on the reliability test of the question using the SPSS16 application, the results obtained:

Reliability Statistics

Cronbach's Alpha	N of Items
.743	26

(Source: SPSS16 data processing output)

In the table above, the value of Cronbach's Alpha for the pre test and post-test questions is 0.743> 0.444. So the problem is stated to be reliable

namely the extent to which a test can be trusted to produce steady scores, relatively unchanged even if tested in different situations

Normality and Homogeneity

a. Normality test

Normality test functions to find out whether the data is normally distributed. The normality test is done to see the control class pre-test score and experimental class score. Below, the results of the normality test use the Kolmogorov-Smirnova test which is processed using SPSS16.

		Kolmogorov-Smirnov[a]		
	Kelas	Statistic	df	Sig.
hb	eksperimen	.128	38	.121
	kontrol	.119	37	.200[*]

(Source: SPSS16 data processing output)

Hypothesis:

Ha: The results of the pre-test value are not normally distributed

Ho: The results of the pre-test values are normally distributed

It can be decided if:

1. If $\alpha = 0.05$> significant value, then Ha can be accepted and Ho is rejected, meaning that it is not normally distributed.

2. If $\alpha = 0.05$ <significant value, then Ho can be accepted and Ha is rejected, meaning normal distribution.

Based on the normality test above shows that each sig value of the experimental class post-test is 0.121, while the sig value of the experimental class post-test is 0.200. The sig value of the post-test experimental class and the control class exceeds the predetermined sig value of 0.05 (95%). It can be concluded that the data taken comes from populations that are normally distributed, because the significance value exceeds 0.05.

b. Homogeneity Test

Homogeneity test can be used as one of the requirements to influence whether the sample used has a homogeneous ability. The homogeneity test can be known from the significance value, based on the homogeneity test the researchers performed calculations with SPSS16. can be known as follows:

Test of Homogeneity of Variances

hb

Levene Statistic	df1	df2	Sig.
1.264	1	73	.265

(Source: SPSS16 data processing output)

The Test of Homogenety of Variance table shows the homogeneity test results from the control class and the experimental class. To be able to test whether the variance is homogeneous it can be analyzed as follows:

Ha: The results of the post-test values are not homogeneous

Ho: Results of homogeneous post-test values

It can be decided if:

1. If $\alpha = 0.05$> significant value, then Ha can be accepted and Ho is rejected, meaning not homogeneous.

2. If $\alpha = 0.05$ <significant value, then Ho can be accepted and Ha is rejected, meaning homogeneous.

Data on Student Learning Outcomes

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
hb	Equal variances assumed	1.264	.265	3.703	73	.000	7.169	1.936	3.311	11.027
	Equal variances not assumed			3.695	70.125	.000	7.169	1.940	3.299	11.039

(Source: SPSS16 data processing output)

If the value is sig. > 0.05, then the data variance is assumed to be the same.
If the value is sig. <0.05, then the data variance is assumed to be not the same.
It can be decided if:
Ho is accepted if: sig value. > 0.05.
Ho is rejected if: sig value. <0.05.

In the Levene Test column, it can be seen that the significance value (Sig.) Is 0.265> 0.05 so that it can be interpreted that the two

population (conventional learning models and Problem Based Learning (PBL) learning models assisted by audiovisual media) have a homogeneous variance (same). Based on the results of the above tests using SPSS16, it is known that the significance value of t count is 0,000. So from that, it can be concluded that 0,000 <0,05 so that Ho is rejected, can be interpreted the average student learning outcomes using conventional media and Problem Based Learning (PBL) assisted by audiovisual media is not the same. And when compared to the average value of both, Problem Based Learning (PBL) assisted by audiovisual media is better than conventional learning models.

Based on the analysis of learning outcomes data using Problem Based Learning (PBL) assisted by audiovisual media has a significant effect rather than using conventional methods. At the initial meeting, pre-test questions were given to determine the students' initial abilities before being given treatment. Based on the data obtained from the pre-test value of the control class and the experimental class, the average pre-test control class value was 60.27 lower than the average pre-test value of the experimental class 63.02.

After that, the researcher conducted an analysis of the items using the SPSS application. The SPSS application in this study was to find out the validity of the question, the level of difficulty of the question, the distinguishing power, and the reliability of the question. Then after that, the researcher conducted a normality test on the post-test results of the two sample classes. Based on the results of the Kolmogorov-Smirnov normality test using the SPSS16 application shows that the given instrument is normally distributed, each sig value of the control class post-test is 0.200, while the sig value of the experimental class post-test is 0.121. In this case, the value of the sig post-test control class and the experimental class exceeds the predetermined significance level of 0.05 (95%).

The results of the homogeneity of variances using the SPSS16 application indicate that the question instrument has homogeneous variants (the same), this is evidenced by the significance value of the control class post-test and the experimental class is 0.265. The sig value of the post-test control class and the experimental class exceeds the predetermined significance level of 0.05 (95%).

The results of the independent t-test were used to see the results of the post-test of the two sample classes. The independent t-test in this study used the SPSS16 application which showed that the significance value of t count was 0,000. So from that, it can be concluded that 0,000 <0,05 so that Ho is rejected, can be interpreted the average student learning outcomes using Problem Based Learning (PBL) assisted by audiovisual media) with conventional media is not the same. And when compared to the average value of both, Problem Based Learning (PBL) assisted by audiovisual media) is better than using conventional methods.

"INFLUENCE OF THE PROBLEM-BASED LEARNING ASSESSMENT OF AUDIOVISUAL MEDIA TOWARDS THE RESULTS OF STUDENTS LEARNING IN THE ECONOMIC LESSONS OF THE XI CLASS OF HIGH SCHOOL"

According to student researchers who have not been completed due to the unpreparedness of students when given a pre-test. the post-test results of the experimental class students showed student learning outcomes with an average score of 84.7. The increase in post-test scores was caused by students interested in Problem Based Learning (PBL) learning models assisted by audiovisual media), they were very enthusiastic in the

learning process, whereas in the control class the post-test results showed students' learning outcomes on average score of 77.6 The completeness of the post-test results of students in the control class is due to the learning process at the meeting that starts actively with the students asking the teacher.

IV.   Conclusion

From the results of research and discussion it can be concluded that: There is a significant difference between learning using the Problem Based Learning (PBL) learning model assisted by audiovisual media) in the experimental class with learning using national income material economic learning in Surabaya 10 SMA, meaning learning using Problem Based Learning (PBL) learning models assisted by audiovisual media) have a positive influence on student learning outcomes.

V.   Suggestion

Based on the conclusions of the results of the above research, it is suggested that the use of Problem Based Learning (PBL) learning models assisted by audiovisual media) as a learning model is expected to be applicable in economic learning as a learning variation in the eleventh grade of 10 SMA Negeri Surabaya.

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