The Effectiveness of Problem-Based Learning Models on Critical Thinking Ability and Social Sensitivity in Social Studies Subjects at SDN 105 Baraka Kab, Enrekang

Rasdianah Muri[1], Nursalam[2], Muhammad Nawir[3]

Program Pascasarjana, Univesitas Muhammadiyah Makassar[1,2,3]

Abstract

This study aimed at determining the effectiveness of the problem-based learning model on critical thingking skills and social sensitivity in social studies subjects at SDN 105 Baraka Kab. Enrekang. This research was a quantitative research using quasi experimental methods. The desigh used in this study was a nonequivalent group pretest-posttest design. The population in this study were all students of SDN 105 Baraka,Enrekang Regency while the samples were students of class VA and VB at SDN 105 Baraka,Enrekang Regency . The research instrumens used were question sheets, questionnaires and observation sheets. The date analysis technique used was an analytical test which consisted of a normality and homogeneity test followed by hypothesis test. The results of this study indicate the effectiveness of the problem-based learning model on thinking skills and social sensitivity in social studies subjects was effectively used, judging by the results of the hypothesis testing using the independent sample t-test using SPSS version 21 seen in the sig column. (2-tailed) was the value of 0.007 < 0.05. In this study, a sample of 36 students was taken, so the value of degrees of freedom (dk) was = n-2 = 36-2 = 34 and the error rate was 5%. Because for the 2-sided test (0.05: 2 = 2.5%) it can be seen that the value of T-table = 2.032. T-count = 2.875 can be seen from the column Equal variances assusmed (homogeneous), it can be seen that the value of Tcount = 2.875. So it can be seen that Tcount > Ttable was 2.875 > 2.032 with a significance was 0.007 < 0.05. So it can be concluded that Ho is rejected and Ha is accepted (the use of problem-based learning models is effectively used for social studies learning in fifth grade students of SDN 105 Baraka.

Keywords: *Problem-Based Learning Model, Critical Thingking Ability, Social Sensitivity.*

Abstrak

Penelitian ini bertujuan untuk mengetahui efektivitas model pembelajaran berbasis masalah terhadap kemampuan berpikir kritis dan kepekaan sosial pada mata pelajaran IPS murid SDN 105 Baraka Kab. Enrekang. Penelitian ini merupakan penelitian kuantitatif dengan menggunakan metode *eksperimen kuasi*. Rancangan yang digunakan dalam penelitian ini adalah dengan *nonequivalent group pretest-posstes design*. Populasi dalam penelitian ini adalah seluruh murid SDN 105 Baraka Keb. Enrekang, sedangkan sampel yang diambil adalah murid kelas VA dan VB SDN 105 Baraka Kab. Enrekang. . Instrumen penelitian yang digunakan yaitu lembar soal, angket dan lembar observasi. Teknik analisis data yang digunakan adalah uji analisis yang terdiri dari uji normalitas dan homogenitas selanjutnya dengan uji hipotesis. Hasil penelitian ini menunjukkan efektivitas model pembelajaran berbasis masalah terhadap kemampuan berpikir dan kepekaan sosial pada mata pelajaran IPS efetif digunakan, dilihat hari hasil pengujian hipitesis menggunakan *independent sample t-test* dengan menggunakan SPSS versi 21 dilihat pada kolom *sig.(2-tailed)* deperoleh nilai sebesar 0,007 < 0,05. Pada penelitian ini diambil sampel 36 murid maka nilai derajat kebebasan (dk) = n-2 = 36-2 = 34 dan taraf kesalahan 5%. Karena untuk uji 2 sisi (0,05 : 2 = 2,5%) maka dapat diketahui nilai T_{tabel} = 2,032. T_{hitung} = 2,875 dapat dilihat dari kolom *Equal variances assusmed* (homogen), dapat diketahui bahwa nilai T_{hitung} = 2,875. Jadi sudah dapat dilihat bahwa T_{hitung} > T_{tabel} yaitu 2,875 > 2,032 dengan signifikansi 0,007 < 0,05. Jadi diperoleh kesimpulan H_o ditolak dan H_a diterima (penggunaan model pembelajaran berbasis masalah efektif digunakan terhadap pembelajaran IPS pada murid kelas V SDN 105 Baraka.

Kata Kunci: *Model Pembelajaran Berbasis Masalah, Kemampuan Berpikir Kritis, Kepekaan Sosial*

PRELIMINARY

Social Science learning in schools is influenced by the need to obtain satisfactory final evaluation results. This does not have an impact on the behavior of students who study social studies by rote alone, but also on the teaching model of teachers, school leadership policies, and parents' expectations of the final results that are assessed quantitatively. Learning Social Sciences basically functions to develop knowledge, values, critical thinking, social sensitivity and attitudes and social skills of students to be able to examine the social life faced daily and to foster a sense of pride and love for the development of Indonesian society from the past to the present. The goal is that students are able to develop knowledge of values, critical thinking, social sensitivity and attitudes and social skills that are useful for themselves, develop an understanding of the growth of Indonesian society from the past to the present so that students are proud as Indonesians (Isjoni, 2007: 8).

The problem-based learning model is one of the learning strategies that is suitable for elementary social studies learning, where the strategy helps students to think critically, creatively, and increase social sensitivity in accordance with the objectives of social studies learning. Problem-based learning is a problem-solving process through systematic and logical steps, while problem-based learning is a learning strategy that emphasizes student experience to solve social problems through problem-solving steps and procedures (Isjoni, 2007:101).

Problem-based learning is used to stimulate critical thinking in problem-oriented situations, including learning how to learn to increase social sensitivity. Ibrahim and Nur (in Nurhadi and Senduk, 2003) state that problem-based learning is known by other names such as: Problem Based Learning, Experience-Based Education, Authentic Learning, or Anchored Instruction (Learning rooted in the real world). The author understands in this study that the application of problem-based learning models in improving critical thinking skills, and social sensitivity of elementary school students, for elementary social studies learning in small study groups can essentially overcome learning barriers in social studies subjects. The application of problem-based learning models can help students to gain ease in understanding social studies teaching materials and be able to use their knowledge in their daily lives. In addition, the application of problem-based learning models can reduce teacher dominance in the learning process, foster students' courage to ask questions, and foster students to think critically, and find concepts.

Based on the results of observations, the researchers proposed a research title about "The Effectiveness of Problem-Based Learning Models on Critical Thinking Ability and Social Sensitivity in Social Studies Subjects for SDN 105 Baraka Kab. Enrekang".

RESEARCH METHODS

This type of research is a quantitative research that is quasi-experimental. Where in quasi-experimental research has two forms, namely times series design and nonequivalent control group design. Where this is almost the same as the pre-test, pot-test control group design, only in this design the experimental group and control group are not chosen randomly (Sugiyono 2016:77).

The research design in which the experimental and control groups are compared with two groups that are given a pretest, then given treatment, finally given a posttest after that, the learning outcomes are known, so in this study it

can be described in the table of research design pretest posttest Control Group Design.

Table 1
Research Design Nonequivalent Control Grup Desain

Group	Pretest	Treatment	Postest
Eksperimen	O1	X	O2
Kontrol	O3	-	O4

(Source: Sugiono, 2018: 79)

O1 : *Pretes* class Eksperimen
O2 : *Postes* class Eksperimen
O3 : Pretest class Kontrol
O4 : Postes class Kontrol
X : Treatment in the experimental class using a problem-based learning model.

The definition of population according to Sugiyono (2017: 80) that population is a generalization area consisting of: objects/subjects that have certain qualities and characteristics determined by researchers to be studied and then drawn conclusions. The population used as a source in this study were all students of SDN 105 Baraka for the 2021/2022 academic year, with a total of 236 students.

Table 2
Population Total Number of Students at SDN 105 Baraka Academic Year 2020/2021

No.	School name	class	Gender		Amount
			Man	Woman	
		I A	8	12	20
		I B	10	14	24
		II A	10	10	20
		II B	8	10	18
1.	SDN 105 Baraka	III A	6	12	18
		III B	7	13	20
		IV A	9	11	20
		IV B	8	9	17
		V A	13	7	20
		V B	14	8	22
		VI A	10	7	17
		VI B	5	15	20
		TOTAL NUMBER OF STUDENTS			236

Source of data: The condition of the number of students at SDN 105 Baraka Academic Year 2021/2022

The definition of the sample according to Sugiyono (2017:81) says that the sample is part of the number and characteristics possessed by the population. The sampling technique used is nonprobability sampling type *purpose sampling*.

The sample in this study was class VA and VB with a total of 42 students, consisting of 22 students as the experimental class and 20 students as the control class.

RESULTS AND DISCUSSION

1. Description of Research Site

The research is located at SDN 105 Baraka Kab. Enrekang with state school status. SDN 105 Baraka holds school time in the morning. There are 14 teachers at SDN 105 Baraka, 2 staff and 1 single schoolgirl. The school has an A accreditation. The facilities available in this school are classrooms, library, garden, canteen, student sanitation, WC/Toilet.

2. Description of Problem Based Learning Model Data

Meeting	Score	%	Criteria
1	17	89,47%	S.T
2	18	94,73%	S.T

Based on the results of the recapitulation in observations for teachers using this model, the score at the first meeting was 17 with a percentage of 89.47%, which is a very high criterion. And for the second meeting, the final score of 18 was obtained, namely the percentage of 94.73%.

3. The Effectiveness of the Application of Problem-Based Learning Models on Students' Critical Thinking Ability

From the results of observations in the experimental class on students' critical thinking skills, the average obtained by students is in the very high category. In the first meeting students' critical thinking skills obtained an average of 89.28% including the very high category. Meanwhile, at the second meeting, an average of 92.85% was obtained which was also included in the very high category.

From the results of observations in the experimental class on student learning activities, the average obtained by students is in the high category. Student learning activities at the first meeting obtained an average of 75% including the high category. Meanwhile, at the second meeting, an average of 78.57% was also included in the high category.

4. The Effectiveness of Problem-Based Learning Models on Students' Social Sensitivity

a. Control class data description

Based on the data obtained, there were 20 students in the control class, but only 17 students attended the learning process, so that only 17 students were used. The overall score obtained by students is 1200, the average score obtained or the mean is 70.5882, the standard deviation is 10.88037, the variance is 118.382, the minimum score is 60 and the maximum score is 100.

The final results or posttest obtained by students are then processed with a view to testing hypotheses in the control class after treatment using a problem-based learning model. The detailed control class posttest results are contained in the following table.

b. Description of experimental class data

Based on the data obtained, the experimental class consisted of 22 students but only 19 students attended the learning process so that only 19 students were used. The overall score obtained by students is 1370, the average score obtained or the mean is 72.1053 standard deviation is 9.76328, the variance is 95.332, the minimum score is 60 and the maximum score is 90.

The final results or posttest obtained by students are then processed with the intention of testing hypotheses in the experimental class after being treated using a problem-based learning model. The experimental class posttest data in detail can be found in the following table.

The data was obtained by processing data using the SPSS Version 21 program. Based on the data obtained, the control class consisted of 20 students but only 17 students attended the learning process, so that only 17 students were used. The overall score obtained by students is 1310, the average score obtained or the mean is 77.0588, the standard deviation is 11.59995, the variance is 134,559, the minimum score is 60 and the maximum score is 100. And in the experimental class, there are 22 However, only 19 students attended the learning process, so only 19 students were used. The overall score obtained by students is 1660, the average score obtained or the mean is 87.3684, the standard deviation is 9.91189, the variance is 98.246, the minimum score is 70 and the maximum score is 100.

5. Research Data Analysis

a. Analysis Prerequisite Test
   1. Test the normality of student learning outcomes

Tests of Normality

	Kolmogorov-Smirnov^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
CLASS KONTROL	,188	17	,111	,925	17	,183

Tests of Normality

	Kolmogorov-Smirnov^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
CLASS EKSPERIMEN	,192	19	,062	,880	19	,022

Based on the table, the significance value obtained in the control class is 0.111 while 0.062 the significance value is obtained in the experimental class. The significance value of student learning outcomes in the control class was more than 0.05 (0.111 > 0.05) and the experimental class was more than 0.05 (0.062 > 0.05). The data is said to be normally distributed if the significance value of the two data is > 0.05. The significance value of the normality test was obtained more than 0.05. So the control and experimental class samples are normally distributed.

   2. Homogeneity Test Results of Student Learning Outcomes

Test of Homogeneity of Variances

RESULTS

Levene Statistic	df1	df2	Sig.
,289	1	34	,594

From the table above shows that the significance in the table is 0.594. The significance value is greater than 0.05 (0.594), it can be concluded that the data on the learning outcomes of the control and experimental class students are declared homogeneous.

b. Hypothesis testing

In this study, a sample of 36 students was taken, so the value of degrees of freedom (dk) = n – 2 = 36 – 2 = 34 and an error rate of 5%. Because for the 2-sided test (0.05: 2 = 2.5%) it can be seen that the value of ttable = 2.032. Tcount = 2.875 can be seen from the column Equal variances assumed (homogeneous), it can be seen that the value of tcount = 2.875. So it can be seen that tcount > ttable (2.875 > 2.032 with a significance of 0.007 <0.05, so it can be concluded that Ho is rejected and Ha is accepted.

Conclusion

This research has been carried out on social studies learning with material about social problems around us by using a problem-based learning model for fifth grade students at SDN 105 Baraka Kab. Enrekang. Based on the data from the research and discussion, the conclusions in this study are as follows.

Based on research with the application of problem-based learning models on critical thinking skills that have been carried out both in the control class and in the experimental class, the data obtained shows that there are differences in student activities using problem-based learning models with those using conventional models. Judging from the scores obtained in the experimental class or those using the problem-based learning model, they were higher than those using the conventional model in the control class. Based on the data obtained, it can be concluded that the application of the problem-based learning model on students' critical thinking skills is very effective.

Based on research with the application of problem-based learning models on students' social sensitivity that has been carried out both in the control class and in the experimental class, the data obtained by being given a pretest and posttest first shows that there are differences in student scores using problem-based learning models with those using conventional models. Judging from the scores obtained in the experimental class or those using the problem-based learning model, they were higher than those using the conventional model in the control class. Based on the data obtained, it can be concluded that the application of the problem-based learning model to the social sensitivity of students is effectively used in the learning.

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