The Effectiveness of Blog Aided Problem Based Learning Model on Learning Outcomes of Class IV Social Studies Content

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Abstract

Based on the result of research in the form of observation, interviews, and data on learning outcomes conducted in the fourth grade students at Nyi Ageng Serang Cluster Elementary school in Semarang, it was known that the social studies learning outcomes were not optimal because the learning model and media used were also not optimal. Although the teacher had used problem-based learning model, the students still had difficulties to identify problems and the media in the form of A4 print out pictures were not enough to help them. This study aimed to test the effectiveness of problem-based learning model assisted by blog media on the social studies learning outcomes in fourth grade students at Nyi Ageng Serang Cluster Elementary School in Semarang. This research used quantitative approach with the experimental type and nonequivalent control group design. The sample technique used cluster random sampling, with population of 172 students. The data collection used tests, observations and documentation. The hypothesis test result showed that the value of tcount = 4.007, and ttable = 2.009, because tcount > ttable (4.007 > 2.009) which means that the problem based learning model assisted by blog media was effective to increase the social studies learning outcomes of the fourth grade students. The n-gain test result of the experimental group was 0.40 categorized in medium criteria, whereas the n-gain test result of control group was 0.15, categorized in low criteria. The observation of students' activities using observation sheets showed the average score of the activity of experimental class students was 82%, which is better than the control class that only got 64%. The conclusion of this research is that the problem-based learning model assisted by blog media was effectively used in social studies learning in fourth grade students at Nyi Ageng Serang Cluster Elementary School in Semarang.

Keywords: Problem-based learning; Blog; Learning outcomes; effectiveness; Social studies

1. INTRODUCTION

Susanto (2016: 145) argues that the main goal in social studies learning is to develop students' potential so that they are sensitive to social problems that occur in the surrounding environment, have a positive mental attitude towards improvements in all imbalances that are occurring, and are skilled in solving problems found in real life both that happens to oneself and in society. The implementation of social studies learning in elementary schools has been running according to the objectives of social studies, but in its implementation there are still various problems. In line with Septaryanto (2015: 130) in his research, he revealed that social studies learning that takes place in general at the elementary school level is a lack of student interest and activeness, the assumption that IPS is a less important subject,

Based on data through observation, interviews and document data in the form of learning outcomes at SDN Gugus Nyi Ageng Serang Semarang in grade IV, students are more interested when the teacher applies a learning model that has elements of play. In the learning model with game elements, students are indeed enthusiastic in learning, but it makes the classroom atmosphere noisy and less conducive. The teacher also applies a model without game

elements such as problem based learning and project based learning which makes the class more conducive but students get bored quickly so they cannot focus on following the lesson until the end. Application of problem based learning models too Lukmi Maulana / Joyful Learning Journal 8 (1) (2020) has obstacles, namely students in identifying problems are not optimal or experiencing difficulties in identify and damage damage problems raised by the teacher. The use of media in the form of print out images with A4 paper size, the child sitting at the back cannot see the picture clearly and the media has not been able to make it easier for students to identify problems so that instructions given by the teacher through pictures are not conveyed properly.

According to the results of observations and interviews, the lack of interest in student learning is caused by several factors, including the lack of learning facilities for students such as learning resources that are still limited to student books, students' lack of enthusiasm in social studies learning because social studies have too much material to read and memorize. saturated students. This problem is supported by data on the learning outcomes of social studies content for fourth grade students of SDN Gugus Nyi Ageng Serang Semarang for the 2018/2019 academic year from

172 students, 95 students (55.2%) social studies learning outcomes have not reached KKM and 77 students (44 8%) have reached the KKM.

Based on the problems regarding social studies content learning, the researcher wants to test the effectiveness of the learning model and media, namely the problem-based learning model assisted by blog media. The problem based learning model assisted by blog media is expected to increase the effectiveness of students while maintaining good classroom conditions.

According to fathurrohman (2017: 112) *Problem Based Learning* is a learning model to grow problem solving skills and acquire new knowledge and think critical by using the problem authentic which is open and not

While Argaw (2017: 858) argued that Problem Based Learning is the method of learning by real problems are introduced at the beginning of learning and are used as learning materials and increase learning motivation.

Ahmadi (2017: 73) explains that learning media is a tool to facilitate learning activities, clarify the material presented, so that achieved educational goals and the effectiveness of learning activities. One of the learning media that can support the problem based learning model is blog media. Blogs are one of the most effective media used in the learning process in schools because with blogs, teachers are able to send or distribute material in the form of text, presentations, discussions, animations, exams, videos and online learning in one place (Weni, 2017: 41).

Research that supports this research is the research of Laila Kodariyati, Budi Astuti (2016) with the title The Effect of the PBL Model on Communication and Problem Solving Abilities. Math Class V Elementary Students. This study was tested using the independent sample ttest with a significance value <0.05.

Based on these results, the Probem Based Learning model has a positive and significant effect on communication skills and careful mathematical problem solving.

Research carried out by Suci Yulianti Lestari, Husnul Hadi and Qoriati Mushafanah (2019) with the title The Effect of Problem Based Learning Model Assisted with Educational Games on Thematic Learning Outcomes. By calculating the t-test, it is found that t count> t table, namely (10.910)> (1.714). Thus, the learning model of Problem Based Learning assisted by educational games has an influence on the learning outcomes of fourth grade students in thematic learning.

The formulation of the problems in this study are: (1) How are the student learning outcomes in the social studies learning process using the Blog-assisted Problem Based Learning (PBL) model in class IV SDN Gugus Nyi Ageng Serang Semarang ?; (2) How do students' activities in the social studies learning process use the Problem Based Learning (PBL) model assisted by Blog in class IV SDN Gugus Nyi Ageng Serang Semarang ?; (3) Is the Problem Based Learning (PBL) learning model assisted by blogs effective on social studies learning outcomes for fourth grade students at SDN Gugus Nyi Ageng Serang Semarang?

Based on the formulation of the problem, the purpose of this study is to describe student learning outcomes in the social studies learning process using the Problem Based Learning (PBL) model assisted by the Nyi Ageng Serang Blog, to describe student activities in the social studies learning process using the Problem Based Learning (PBL) model assisted by Blog Nyi Ageng Cluster Serang Semarang and Testing the effectiveness of the Blog-assisted Problem Based Learning (PBL) learning model on the social studies learning outcomes of the fourth grade students of SDN Gugus Nyi Ageng Serang Semarang.

2. RESEARCH METHODS

This research uses quantitative methods. This type of research is experimental research with the research subjects of fourth grade students of SDN Gugus Nyi Ageng Serang Semarang City. The design of this research is Quasi Experimental Design in the form of Nonequivalent Control Group Design which is described by the following formula (Sugiyono, 2015: 116).
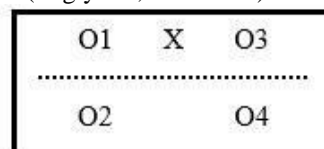
The population of this study were all fourth grade students of SDN Gugus Nyi Ageng Serang Semarang with a total of 172 students. The research sample was taken by using a sampling technique, namely Cluster Random Sampling, consisting of 27 students of SDN Mangkang Kulon 02 with 27 students (experimental class), 25 Mangunharjo SDN students (control class), and 25 Mangkang Wetan 01 SDN students (test class). try). The independent variable in this experimental research is the Problem Based Learning model assisted by blogs and the dependent variable is the learning outcomes of social studies content. Data collection techniques using tests, observation, and documentation. Analyzing the test instruments in the form of validity, reliability, difficulty level of questions and different power of questions before the instrument is used in data collection.

The analysis technique consists of preliminary data analysis and final data analysis. Initial data analysis is normality test and homogeneity test, while final data analysis is normality test, homogeneity test, hypothesis test and n-gain test. The calculation of the hypothesis

test using the t-test with the help of SPSS21.

Hypothesis testing is used to determine the effectiveness of the Problem Based Learning learning model assisted by blog media in the classroom Experiment with learning outcomes IPS.

The t-test calculation uses the independent sample t-test with the help of SPSS21. The testing criteria according to Priyatno (2017: 201), namely if tcount> ttable or a significance value> 0.05, then H0 is rejected. While the n-gain test is used to test the average increase between the pretest and posttest scores in the control class and the experimental class.

3. RESEARCH RESULTS AND DISCUSSION

There is a difference in the average posttest score of students in the experimental class and the control class between learning using the Problem Based Learning model and learning using the Problem Based Learning model assisted by image media. Evidenced by the average posttest results for the experimental class of 79.0 and for the control class of 65.7.

Data from student learning outcomes were tested for data analysis prerequisites to determine the formula used to test the hypothesis. The prerequisite analysis test was the normality test and the homogeneity test. The significance value of the normality test results in the experimental class is 0.723 and in the control class is 0.851. Both classes have a value of Sig> α = 0.05, so it can be concluded that H0 is accepted and Ha is rejected, namely the posttest data analysis for the experimental class and the control class with a normal distribution. While the significance value of the homogeneity test results is 0.417, where the results> α = 0.05, which indicates that the experimental class and the control class have homogeneous or the same variance. Calculation of normality and homogeneity tests is assisted using SPSS21using the Kolmogrorov Smirnov and ANNOVA test which shows that the social studies learning outcomes from the posttest results in the experimental class and control class are normally distributed and have homogeneous variances.

After the normality test and homogeneity test were carried out, then to find out the average difference between the control class and the experimental class, the hypothesis was tested. Hypothesis testing in this study shows that the Problem Based Learning model assisted by blog media is more effective than the Problem Based Learning model assisted by image media on social studies learning outcomes of grade IV students at SDN Gugus Nyi Ageng Serang, Semarang City as shown by the test results of the Independent Sample T-Test. Test, namely the value of t count is 4.007,

and the value of t table is 2.009, so that obtained tcount = 4.007> t table = 2.009 then H0 is rejected and Ha is accepted based on the test criteria according to Priyatno (2017: 201) that is if tcount> ttable then H0 is rejected. The results of the hypothesis test can be seen in the following table:

Table 1. Independent Sample T-Test Test Results

Levene's Test for Equality of Variances	t-test for Equality of Means	
F Sig.	T df	
Equal variances. 670,417 assumed Posttest	4,007	50
Equal variances not assumed	3,976	46,470

The acquisition is supported with research conducted by Latif Agung Nugroho, Baskoro Adi Prayitno, Puguh Karyanto (2018) entitled Effectiveness of Problem Based Learning Learning Model on Ecological Literacy Ability of Class X Senior High School Students. Obtained tcount = 7,204> ttable = 4,367 and a significance value of 0,000 <0,05. So H0 is rejected, therefore the problem based learning model is more effective than conventional model learning in terms of students' ecological literacy abilities.

The results of research conducted by Edy Hermawan, I Putu Eka Indrawan, Ni Luh Lianjayani (2018: 170-177) with the title The Effect of E-Learning Assisted Problem Based Learning Learning Model on Creativity and Mathematics Learning Outcomes. The results of the study show the results of the t-test analysis, where the sig value <0.05 (0.001 <0.05) means that students who follow the e-learning-assisted Problem Based Learning model have an increase in mathematics learning outcomes that is better than students following the model. conventional learning.

Then, the difference in the increase in social studies learning outcomes can be calculated using the ngain test. The control class obtained a posttest score of 65.7, and the experimental class obtained an average posttest score of 79.0. The n-gain value of the experimental class is higher than the n-gain value in the control class. The n-gain value for the control class, namely 0.15, is included in the low criteria, and the n-gain value for the experimental class is 0.40, which is included in the moderate criteria. Based on the results of the pretest and posttest with these calculations, it shows that students in the experimental class using the problem-based learning model assisted by blog media have a

higher learning outcome than students in the control class who use the image-assisted problem-based learning model.
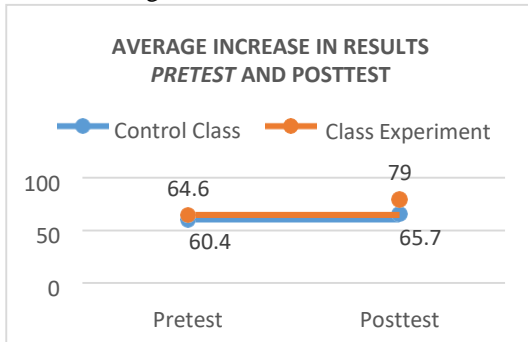
Figure 4.1 Upgrading diagram
Score Average Class IV Student Pretest and Posttest SDN Gugus Nyi Ageng Serang Semarang City in Social Studies Learning.

The results of this study are on the way with research conducted by Bekti Sulistya Rini, Hamdan Tri Atmaja and Dewi Liesnoor Setyowati (2019). Based on the calculation of the average gain score in the two classes, the average gain score in the control class is 0.26, this means that the effectiveness of the direct learning method in improving student learning outcomes is low, it is different.with the effectiveness of the PBL method, results the calculation of the average gain score for the experimental class is 0.47 which indicates that the effectiveness of PBL in improving student learning outcomes is in the low category. This shows that the PBL learning method is more effective in improving student learning outcomes than the direct learning method.

Evinna Cinda Hendriana's research (2018) entitled The Influence of Learning Models *ProblemBased Learning* and Auditorial Learning Styles on Social Studies Learning Outcomes in Elementary Schools. This study aims to determine the effect of the Problem Based Learning learning model and the auditory learning styles of students on learning outcomes of Class IV Social Sciences at Bina Anak Muslim Singkawang Private Elementary School. These findings show that learning with the application of the PBL learning model to students with a visual learning style has a great influence on the high learning outcomes of students in Social Sciences with an effect size of 3.55 with the criteria for the effect size being in the high category, namely in the range ES> 3.55so that the model PBL learning affects the improvement of student learning outcomes in social studies learning.

Observation of data on the results of the control class students' activities using the problem-based learning model assisted by image media and the experimental class by applying the treatment of the problem-based learning model assisted by blog media showed a difference. the control class got an average score of student activity with good criteria

that is, 64% for four learning activities, while the average score of the experimental class student activity is 82% in four learning activities in very good criteria. So it can be seen that the average score of the experimental class students' activity with treatment in the form of a problem based learning model assisted by blog media is better than the average score of the activity of the control class students who apply the problem based learning model assisted by image media.

With these results, it can be concluded that the problem based learning model assisted by blog media is effectively applied to learning in increasing student activity.

The gain is strengthened by research conducted by Siti Yumrotun (2018) entitled The Effect of the Problem Based Learning Model on Mathematics Learning Activeness and Outcomes Student Breaking Materials Class IV SD Negeri 01 Sidomulyo Kendal. Research showsthat analysis Finally with the t test, it is obtained tcount = 3.109 and for α = 5% with db = 23 seen from t table = 2.075. Because tcount> ttable, H0 is rejected, so that the activeness of students at the second meeting is greater than the activeness of students in the first meeting. Then the hypothesis in this study is accepted.

Research conducted by Irfandi Idris (2019) entitled The Effect of the Problem Based Learning Model on Process Skills and Social Studies Learning Outcomes of Bontojai Elementary School Students in Makassar City. This study aims to determine the effect of using the Problem Based Learning model on process skills and student social studies learning outcomes on the hero theme. From the results of hypothesis testing also shows that the Problem Based Learning learning model has an influence with the acceptance of Ha> Ho which shows a number of 2.995> 2.060, so it can be said that Ho is rejected and Ha is accepted. These findings indicate that the use of the Problem Based learning model *Learning* able to improve process skills and student social studies learning outcomes.

Based on these results, it can be concluded that the learning outcomes and student activities in the experimental class are better than those in the control class which indicates that the learning process using the problem-based learning model is effective in improving student learning outcomes and activities.

4. CONCLUSION

The results of the analysis using the Independent Sample T-Test show that the t valuecount is 4.007, while the value of ttable that is 2,009. Because tcount = 4.007> t table = 2.009 then Ha is accepted. From these data, it can be

concluded that the blog-assisted problem-based learning model is more effective than the picture-assisted problem-based learning model on the learning outcomes of social studies content for grade IV SDN students in Nyi Ageng Serang Cluster, Semarang City. Student activities were carried out by observations in the control class and the experimental content of social studies subject matter characteristics of space and the use of natural resources for the welfare of the community from the city / district level to the provincial level showing a difference in the percentage of student activity in the two classes in learning activities. The average score of the control class student activity is 64% with good criteria and the average score of the experimental class student activity is 82% with very good criteria.

5. REFERENCES

Nugroho, LA, Prayitno, BA & Karyanto, P. Effectiveness of Problem Based Learning Model on Ecological Literacy Ability of Class X Senior High School Students. Journal of Counseling and Education. 6 (1): 1-7.

Argaw, A., Haile, BB, Ayalew, BT, & Kuma, SG 2017. The Effect of Problem Based Learning (PBL) Instruction on Students' Motivation and Problem Solving Skills of Physics. EURASIA Journal of Mathematics Science and Technology

Education.13 (3): 857-871 E-ISSN 1305-8223.

Fathurrohman, M. 2017. Innovative Learning Models. Jogjakarta: ArRuzz Media.

Hendriana, EC 2018. The Effect of Problem Based Learning Learning Model and Auditorial Learning Style on Social Studies Learning Outcomes in Elementary Schools. Indonesian Journal of Basic Education. 3 (1): 18.

Hermawan, E., Indrawan, IPE, & Lianjayani, NL 2018. Effect of Problem Based Learning Model Assisted by E-Learning on Creativity and Mathematics Learning Outcomes. Emasains. 7 (2): 170- 177.

Idris, I., Sida, SC, & Idawati. 2019. The Influence of the Problem Based Learning Model on Process Skills and Social Studies Learning Outcomes of Bontojai Elementary School Students in Makassar City. National Seminar Proceedings. 1: 54-58.

Kodariyati, L., & Astuti, B. 2016. The Influence of Pbl Model on Communication and Problem Solving Skills for Class V Sd. Prima Educasia Journal. 4 (1): 93-106

Lestari, SY, Hadi, H., & Mushafanah, Q. 2019. The Influence of Problem Based Learning Model Assisted by Educational Games on Thematic Learning Outcomes. Synectic Journal. 2 (1).

Melina, V., & Ahmadi, F. 2017. The Development of Domino Nusantara Conservation Media for Students IV Grade Elementary School of Purwoyoso 01 Semarang. The Journal of Elementary School Teacher Training and Pedagogy. 1 (1): 44-48.

Nugroho, LA, Prayitno, BA & Karyanto, P. 2018. The Effectiveness of Problem Based Learning Model on Ecological Literacy Ability of Class X Senior High School Students. Journal of Counseling and Education. 6 (1): 1-7.

Priyatno. 2017. Practical Guide for Processing Data Using SPSS. Yogyakarta: Andi. Rini, BS, Atmaja, HT, & Setyowati,
DL 2019. The Effectiveness of The Thematic Instructional Materials in Improving Social Sciences Basic Competence by Using Problem-Based Learning Model in Elementary School. Journal of Primary Education. 8 (1): 10-15. Santosa, MH 2017. The use of blogs (online journals) in learning writing.Ganesha Journal of Education.

Septaryanto, J. 2015. Problems of Social Studies Learning in Elementary Schools. National Proceedings of Seminars and Scientific Paper Writing Workshops.

Sudarmin. 2015. Creative innovative learning model. Semarang: Fmipa Unnes.

Sugiyono. 2015. Educational Research Methods. Bandung: Alfabeta.

Weni, DM, Isnani, G., & Churiyah, M. 2017. Improving Student Learning Outcomes by Developing Blog-Based E-Learning Media. JIAP (Journal of Office Administration), 2 (1): 39-50
ISSN 25285513.

Yumrotun, S. 2018. The Influence of the Problem Based Learning Model on Mathematics Learning Activeness and Results of Class IV Students at SD Negeri 01 Sidomulyo Kendal. Journal of Our Teachers 2 (4): 49-56.