

The Effectiveness of Social Sciences Learning with Problem Based Learning (PBL) Assisted as Prezi Media on Critical Thinking Ability and Conceptual Understanding of Fifth Grade Elementary School Students

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Abstract

The purpose of this study was to improve critical thinking skills and conceptual understanding of fifth grade elementary school students in learning Social Sciences using the prezi media-assisted Problem Based Learning (PBL) model. The method used is quantitative research with experimental research types. The data collection instruments used were observation sheets, tests, and documentation. The subjects of this study were the fifth grade students of *SDN Karangwuni 01* as the experimental class and the fifth grade students of *SDN Karangwuni 03* as the control class. The results of the study show that the PBL model assisted by Prezi media is valid for use in social studies learning in fifth grade of elementary school. Effective in improving students' critical thinking skills, as evidenced by the acquisition of N-Gain is 0.69 in the medium category. The PBL model assisted by Prezi media is effective in increasing students' understanding of concepts. Evidenced by the acquisition of N-Gain is 0.72 in the high category. Based on these results, it can be concluded that social studies learning with the PBL model assisted by Prezi media is effective in improving critical thinking skills and conceptual understanding of elementary school students.

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INTRODUCTION

Education aims to enable every human develops their potential through the learning process. The national education system is currently dealing with complex challenges, namely preparing competent human resources (HR). The preparation of the quality of human resources must be done through a quality education process. However, the current learning process has not developed students' thinking skills to the fullest. The current learning is still teacher-centered, so students become passive, saturated, and bored (Rawung, 2019). This is because learning in the classroom tends to be directed at memorizing material, students' brains are forced to remember and hoard various information without being directed to connect it in daily life (Sanjaya, 2016). This also has an impact on students' concept understanding which is still low. Furthermore, Lapase (2021) also stated that the teacher explained the material less clearly because it was too fast in delivery and did not attract students' attention. The process of existing learning activities is contrary to the learning principles of the 2013 curriculum, that in the 2013 curriculum learning is centered on students not on teachers.

Social studies is a subject that is given starting from SD / MI / SDLB to SMP / MTs / SMPLB. The concept of social studies learning at the basic level is to provide students with knowledge about life in society and the environment and the problems that occur in it. Social science learning in elementary schools is carried out so that students are active, critical, civilized, and aware as citizens who can play a role in the life of a multicultural society in local,

national and global environments. (Kemendikbud, 2018). However, social science learning that occurs in the field has not been able to involve student activeness so that students' critical thinking skills are still relatively low. Social science learning is carried out using the lecture method so teachers play a more active role in the classroom than the students. Learning takes place in one direction thus students only play a role in receiving material and are less active when asking questions. The role of students who have not been active during the learning process results in students feeling bored and tend not to be interested in participating in learning. This has an impact on the low critical thinking skills of students.

Critical thinking ability is a high-level thinking process (HOTS) which means a thinking process that requires students to manipulate information and ideas in certain ways that give them new understanding and implications, in schools the questions used to train high-level thinking skills are questions at stages C4 to C6, which are analyzing, evaluating, and creating (Dinni, 2018). The low critical thinking skills and understanding of student concepts have an impact on low learning outcomes. This is evidenced by the acquisition of the results of the social studies test of fifth grade of state elementary schools in the Gugus Venus, Weru, Sukoharjo in 1st semester that from a total of 100 students, 48 students reached the predetermined KKM, while the remaining 52 students had not reached classical completeness. The following are the results of the social studies test of fifth grade elementary schools in the Gugus Venus.

Table 1. PTS Score of Social Science of the fifth grade, Semester 1

No	School	Number of Student Passed	Number of students Failed
1.	SD Negeri Karangwuni 01	15	12
2.	SD Negeri Karangwuni 03	12	14
3.	SD Negeri Karakan 01	10	13
4.	SD Negeri Karakan 02	11	13
Amount		48	52

The effective learning of social studies requires learning innovation through several efforts, which are varied learning strategies, teachers deliver learning materials easily understood, and create a pleasant learning situation. In line with the opinion of Dewi & Hilman (2018) that increasing the effectiveness of learning can be done by updating the learning approach and utilizing technology. Based on this, the solution offered by researchers to create effective learning is to use the Problem Based Learning (PBL) model assisted by prezi media.

Hamruni (2012) states that PBL has advantages in developing students' critical thinking skills and can encourage students to construct their knowledge to understand problems in the real world. This is in line with Ejin's research (2016) showing that through the PBL model can significantly improve students' critical thinking skills and concept understanding abilities. The results of research by Nugraha, et.al (2017) showed that there was an increase in critical thinking skills and student learning motivation through the PBL model with outdoor learning in fifth grade elementary school learning. The PBL model assisted by prezi media used by researchers in order to motivate students, provide learning experiences, and help students construct their knowledge. The PBL approach with the help of prezi media is expected to provide an increase in students' cognitive learning outcomes, improve students' critical thinking skills, and students' concept understanding. Therefore, this study aims to improve the effectiveness of social studies learning with PBL model with prezi media on critical thinking skills and comprehension of the concept of fifth grade students.

METHOD

The research conducted by researcher is a quantitative research with experimental research.

Sugiyono (2016) explains that experimental research is carried out to identify whether or not there is an effect on certain actions under controlled conditions. The population in this study were all fifth grade students of public elementary schools in the Gugus Venus, Weru, Sukoharjo. In this study, the sampling technique used was purposive sampling. This technique is a way of selecting samples by paying attention to certain considerations, which is the sampling of experimental classes and control classes based on certain considerations. On this basis, the experimental class was obtained, which is fifth grade of SD Negeri Karangwuni 01 and the control class, which is fifth grade of SD Negeri Karangwuni 03.

The data collection techniques used include tests and non-tests. The data collection instruments used were observation sheets, tests, and documentation. Media validity is obtained from expert validity. The effectiveness of learning with the help of prezi media is obtained from t-test and N-gain test.

RESULTS AND DISCUSSION

Prezi media used in problem-based learning social science learning was validated by five validators to assess its validity and feasibility. The five validators consisted of three expert validators, UNNES lecturers and two education practitioners in elementary schools. The score of each validator was averaged to obtain the final score. The average score for media validity is 4.61 in the excellent category and declared valid. The content aspect scored 4.58, the language aspect scored 4.47, the presentation aspect scored 4.5 and the graphic aspect scored 4.4. The following is a recapitulation of media validity from the five validators presented in Table 2.

Table 2. Recapitulation of media validity assessment

No	Code	Media Assessment Score (Aspect)				Average
		Media	Language	Presentation	Graphics	
1	V-1	4.44	4.25	4.33	4.22	4.43
2	V-2	4.61	4.58	4.67	4.56	4.70
3	V-3	4.67	4.75	4.5	4.78	4.79
4	V-4	4.72	4.5	4.83	4.33	4.70
5	V-5	4.5	4.42	4	4.11	4.43
Average		4.58	4.47	4.5	4.4	4.61
Category		Valid	Valid	Valid	Valid	Valid

Based on the results of the recapitulation of observations of students' critical thinking skills, the results show that the average of the experimental group is 3.25 with the MK category (*Menjadi Karakter/Becoming Character*) while the control group is 3.07 with the MB category (*Mulai Berkembang/Starting to Develop*). The average acquisition of the two groups received different scores, where the average score of the experimental class was higher than the control class. In addition, the experimental group obtained the MK category (*Menjadi Karakter/Becoming Character*) while the control group obtained the MB category (*Mulai Berkembang/Starting to Develop*).

Based on the results of the t-test, the sig value is $0.204 > 0.05$ which means that H_0 is

accepted and it can be said that there are differences in the learning outcomes of students' critical thinking skills between the experimental group and the control group. These results indicate that social science teaching with Problem Based Learning model assisted by prezi media is effective in improving students' critical thinking skills. Furthermore, the results of the N-Gain calculation obtained a value is 0.69 with a moderate category. Thus, it can be concluded that the use of Problem Based Learning model assisted by prezi media can improve students' critical thinking learning outcomes. The results of the t-test recapitulation using the SPSS 22.0 application can be seen in Table 3.

Table 3. Results of t-tests

Criteria	t-tes		Significance	
	Sig	Sig Criteria	Sig (2 tailed)	Sig Criteria (2 tailed)
Results	0.204	0.05	0.000	0.005

The results of this study are relevant to research from national researchers and international researchers. National researchers from Cahyo, Wasitohadi & Rahayu (2018) stated that PBL model learning using audiovisual media assistance was able to improve student learning outcomes because with this model students became interested in participating in learning. This PBL learning model can make students think critically. Similar to the results of Susilowati's research (2018) that the use of PBL models with audiovisual aids can improve students' critical thinking skills. The results of this study are relevant to research from

Widiani (2018) that learning with problem-based learning can improve the critical thinking skills of elementary school students. Supported by international researchers from Dakabesi & Louise (2019) on the effectiveness of problem-based learning models to improve students' critical thinking skills, the results show that PBL-based learning is proven effective in improving students' critical thinking skills, as evidenced by students who learn using PBL models in experimental classes having better critical thinking skills than students who learn using conventional models in control classes. The results of research from Nurkhin &

Pramusinto (2020) state that the PBL learning model can improve students' critical thinking skills.

Based on the recapitulation of observations of students' concept understanding, the average results of the experimental group are 3.22 with the MB category (*Mulai Berkembang/Starting to Develop*) while the control group is 3.07 with the MB category (*Mulai Berkembang/Starting to Develop*). The results of the t-test recapitulation obtained a sig value of $0.199 > 0.05$ which means H_0 is accepted and it can be said that there is a

difference in concept understanding between the experimental group and the control group. Furthermore, if you look at the Sig (2-tailed) column which is worth $0.001 < 0.005$, it shows that H_a is accepted so that there is a significant difference in critical thinking ability between the experimental group and the control group, and shows that the use of PBL models assisted by prezi media can improve students' understanding of concepts and the media is better than existing media. The results of the t-test recapitulation using the SPSS 22.0 application can be seen in Table 4.

Table 4. Results of t-tests

Criteris	t-tes		t- tes Significance	
	Sig	Sig Criteria	Sig (2 tailed)	Sig Criteria (2 tailed)
Result	0.199	0.05	0.001	0.005

The improvement of learning outcomes of concept understanding is obtained from the analysis of the average pre-test and post-test scores as the basis for the calculation of N-Gain. Social science learning with Problem Based Learning model assisted by prezi media obtained an average pre-test is 40.33. After the learning process using the Problem Based Learning (PBL) model assisted by prezi media, the average post-test increased to 83.50. After the calculation, it is known that there is an increase in N-gain of 0.72 with a high category. The results of these calculations indicate the level of improvement obtained. So it can be concluded that learning social studies with Problem Based Learning model assisted by prezi media can improve the learning outcomes of students' concept understanding.

The results of this study are relevant to the research of Yulianti & Gunawan (2019) that the Problem Based Learning-based learning model is effectively used in improving students' concept understanding. Supported by research results from Rahmadani & Aroffa (2017) that the application of the Problem Based Learning model can create meaningful learning, so that students have high conceptual understanding skills because they can solve problems correctly. Research from Sari & Fauzi (2018) obtained the

result that the application of the learning model using Prezi media can improve students' understanding of concepts. Not much different from the results of research from Zejnilagic (2018) that by implementing problem-based learning students' understanding of subject matter has increased.

CONCLUSION

Based on the results of research conducted on the use of prezi media in social studies learning based on Problem Based Learning proved to be able to improve learning outcomes, as well as improve critical thinking skills and understanding of student concepts. Therefore, it can be concluded that social studies learning with Problem Based Learning (PBL) model assisted by prezi media is proven to be valid and effective in improving critical thinking skills and understanding of the concept of fifth grade students.

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