# The Effect of Problem-Based Learning Model with Learning Videos on Learning Motivation, Critical Thinking Ability, and Social Studies Learning Outcomes

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#### **Abstract**

The purpose of this research is to ascertain how Problem-Based Learning (PBL), with the use of instructional videos, affects students' learning achievement in Social Studies (IPS) classes at Gugus I Panakkukang District Elementary School in Makassar City, as well as their learning motivation and critical thinking abilities. This research employed a non-equivalent control group design in a quasiexperimental setup. There were 27 students in the experimental group and 29 in the control group out of the total 56 students in the sample. Tests of academic accomplishment and critical thinking skills, learning motivation surveys, observation, and recordkeeping were some techniques used to gather data. Descriptive statistical methods, inferential analysis, and MANOVA hypothesis testing were used to investigate the data. The results demonstrated that: 1) PBL with learning videos substantially impacted students' learning motivation (p = 0.000 < 0.05); It is anticipated that the consequences of this research will assist educators in selecting appropriate learning model applications to enhance student learning outcomes.

**Keywords:** Problem-Based Learning Model; Tutorial Video; Learning Motivation; Critical Thinking Skills; Learning Outcomes.

#### Introduction

Education plays a vital role in national development and is crucial to nation and state formation. According to the Regulation of the Minister of Education and Culture (Permendikbud) No. 22 of 2016, the learning process must be student-centred, involving fun, challenging, motivating, interactive, and inspiring activities. The learning process must provide space for initiative, creativity, and independence following students' talents, interests, and physical and psychological development. <sup>2</sup>

Jia Lv noted that learning success is measured by positive behavioural changes in students by the planned learning objectives.<sup>3</sup> However, Amol R Dongre's research shows that teachers' understanding of educational theories needs to be revised to meet the needs of diverse students.<sup>4</sup> This is a challenge in creating an effective and meaningful learning process. For this reason, Siegel and M Daumiller recommend systematic theoretical clarification of educational theory and consider the attitudes and teachers related to the theory to produce practical implications in learning.<sup>5</sup> Alois Matorevhu's findings corroborate what several researchers have said about teachers understanding the application of learning theory. Institutions established for teacher training should focus more on learning theory, which impacts teachers' ability to apply it in learning.<sup>6</sup>

Some literature on learning models shows the importance of learning models in achieving educational goals. Nurasyah Dewi's<sup>7</sup> research examines the combination of IBL, PBL, and PJBL models in learning. The critical finding of this research is that the three learning models can improve students' creative thinking skills. Gunarti

<sup>&</sup>lt;sup>1</sup> I Kadek Yogi Mayudana and I Komang Sukendra, "Analisis Kebijakan Penyederhanaan RPP: Surat Edaran Menteri Pendidikan Dan Kebudayaan Nomor 14 Tahun 2019," *Indonesian Journal of Educational Development (IJED)* 1, no. 1 (2020): 61–68.

<sup>&</sup>lt;sup>2</sup> Sufiani Sufiani and Marzuki Marzuki, "Joyful Learning: Strategi Alternatif Menuju Pembelajaran Menyenangkan," *Zawiyah: Jurnal Pemikiran Islam* 7, no. 1 (2021): 121–141.

<sup>&</sup>lt;sup>3</sup> Jia Lv and Junping Yang, "Prediction of College Students' Classroom Learning Effect Considering Positive Learning Emotion," *International Journal of Emerging Technologies in Learning (Online)* 18, no. 5 (2023): 161.

<sup>&</sup>lt;sup>4</sup> Amol R Dongre, "Relevance of Educational Theories in Medical Education," *Online Journal of Health and Allied Sciences* 18, no. 4 (2020).

<sup>&</sup>lt;sup>5</sup> S T Siegel and M Daumiller, "Students' and Instructors' Understandings, Attitudes and Beliefs about Educational Theories: Results of a Mixed-Methods Study. Educ. Sci. 2021, 11, 0" (s Note: MDPI stays neutral with regard to jurisdictional claims in published …, 2021).

<sup>&</sup>lt;sup>6</sup> Alois Matorevhu, "Teacher Educators' Nature of Understanding of Adult Learning Theories Application in Pre-Service Teachers' Classes," *Electronic Journal of Education, Social Economics and Technology* 3, no. 1 (2022): 15–23.

<sup>&</sup>lt;sup>7</sup> Nurasyah Dewi Napitupulu, *The Urgency of the Multi-Model Approach in Learning Environmental Physics to Achieve Learning Goals* (Asadel Publisher, 2023).

Sukriyatun's research findings indicate that the PBL model is declared effective in increasing the innovation of junior high school students in Bogor City. Dewi Ayu Wisnu's<sup>8</sup> writing examines the benefits of PBL; in her findings, Dewi explains that PBL can provide meaningful, relevant experiences in preparing students in a complex world.

Although the study of the PBL learning model has been widely done theoretically and practically, teachers still need help applying it effectively, especially in Social Studies subjects. This research will explore the effectiveness of PBL with the help of Learning Videos on Learning Motivation, Critical Thinking Ability, and Social Studies Learning Outcomes. This study aims to evaluate the effectiveness of the video-assisted Problem-Based Learning model in improving learning motivation, critical thinking skills, and learning outcomes of grade V elementary school students in social studies subjects. The target of this study was fifth-grade students of SD Inpres Tamamaung I Makassar City.

Problem-Based Learning (PBL) is a learning model that prioritizes student independence in the learning process so that students can explore their knowledge independently. As stated by Panen, this model requires students to identify problems, collect data, and use the data to solve problems. PBL aligns with constructivism learning theory, which emphasizes student activity rather than teacher activity and trains students in problem-solving skills. To increase its effectiveness, PBL can be combined with engaging learning videos.

Student learning motivation is often a determining factor in the success of the learning process. At SD Inpres Tamamaung I Makassar City, students often face challenges in understanding social studies lessons due to a lack of motivation and reluctance to ask questions caused by low curiosity about the subject matter. By adopting a video-assisted Problem-Based Learning model, it is expected that students' learning motivation can be improved.

This research is expected to significantly contribute to improving elementary school learning quality. Applying video-assisted PBL is expected to increase students' motivation, critical thinking skills, and learning outcomes. In addition, this research can also provide practical guidance for teachers in applying effective learning models that follow students' needs.

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<sup>&</sup>lt;sup>8</sup> Dewi Ayu Wisnu Wardani, "Problem Based Learning: Membuka Peluang Kolaborasi Dan Pengembangan Skill Siswa," *Jawa Dwipa* 4, no. 1 (2023): 1–17.

#### **Research Methodology**

This research uses a quasi-experimental design, which is the design of a non-equivalent control group. The quasi-experimental design provides two different treatments in two groups, 9 while the non-equivalent control group is that this study consists of two groups, namely the experimental class group and the control class group; the first group is given the Problem-Based Learning (PBL) model assisted by Learning Video and is referred to as the experimental class, while the second group without getting the Problem-Based Learning (PBL) model assisted by learning video media and is referred to as the control class. This research design is described in the following table:

The data collection techniques used in this study were observation, questionnaire, critical thinking skills test, learning outcomes test, and documentation. The sample selection in this study was done using a random sampling technique to determine the experimental and control classes by drawing lots. Thus, an experimental class of 27 students of SD Inpres Tamamaung I and a control class of 29 students of SD Inpres Tamamaung III were obtained.

The data obtained were then analyzed with the help of SPSS v 26. The data were analyzed based on the needs of this study, namely descriptive analysis and inferential statistical analysis. The descriptive statistical analysis for the control class analyzed the data to see its effect on learning motivation, critical thinking skills, and learning outcomes despite using a conventional learning model. In addition, the experimental class analyzed the data through descriptive statistics to determine the effect on motivation, critical thinking skills, and learning outcomes using the Problem-Based Learning model assisted by learning videos. In the inferential statistical analysis, researchers used the prerequisite analysis test, including normality, homogeneity, and hypothesis testing in this study.<sup>10</sup>

#### Comparison of Learning Motivation between Control and Experimental Classes

Data on student learning motivation was obtained from the results of a learning

<sup>&</sup>lt;sup>9</sup> Donald T Campbell and Julian C Stanley, *Experimental and Quasi-Experimental Designs for Research* (Ravenio books, 2015).

<sup>&</sup>lt;sup>10</sup> Mortaza Jamshidian and Siavash Jalal, "Tests of Homoscedasticity, Normality, and Missing Completely at Random for Incomplete Multivariate Data," *Psychometrika* 75, no. 4 (2010): 649–674.

motivation questionnaire answered by each student, using four answer options. Students' learning motivation was measured in the control class (without using the Problem-Based Learning model assisted by the learning video) and experimental class (using the Problem-Based Learning model assisted by the learning video). The following is the statistical data on learning motivation in the control and experimental classes.

Based on the table above, it can be seen that the respondents consisted of 29 students. The mean value of initial motivation is 63.79, and the mean value of final motivation is 68.86. The minimum value of initial motivation is 40, and the final motivation is 45. The maximum value of initial motivation is 78, and the final motivation is 79. Standard deviation as a measure of data dispersion showed a value of 10.297 at initial motivation and 8.634 at final motivation. The total learning motivation score of the control class was 1,850 for initial motivation and 1,997 for final motivation.

Based on the table above, in the initial motivation, there were eight students with sufficient learning motivation (28%), 13 students with less learning motivation (44%), and eight students with significantly less learning motivation (28%). In the final motivation, there were 11 students with sufficient learning motivation (38%), 16 students with less learning motivation (55%), and two students with significantly less learning motivation (7%). From these data, most students have sufficient to less learning motivation in the control class.

Thus, this research method shows a difference in student learning motivation between the control and experimental classes using the Problem-Based Learning model assisted by learning videos.

Based on the table above, the experimental class with a total of 27 students, namely in the initial motivation, with a minimum value of 50 and a maximum value of 85, a median value of 68.00 with a total value of 1,871 and a mean value of 69.30. after being given treatment using the Problem-Based Learning learning model assisted by learning videos, students are given final motivation to determine student learning motivation, namely with a minimum value of 80 and a maximum value of 96, with a median value of 95.00. The learning motivation value is 2,495, with a mean of 92.41. Student learning motivation data is presented in the following table.

The data on the percentage of student learning motivation in the table above

shows that in the implementation of initial motivation, four students got good scores with a percentage of 22%; for moderate motivation scores, there were six people with a percentage of 22%, fewer motivation scores were 14 students with a percentage of 52% and for significantly less motivation scores were three people with a presentation of 11%. After treatment using the learning model and given the final motivation, 23 people got excellent motivation scores with a percentage of 85%. As many as four got good motivation scores with a percentage of 15%. Based on the data above, it can be concluded that using the problem-based learning model, assisted by learning videos, can increase student learning motivation.

### a. Inferential statistic analysis

# 1) Analysis prerequisite test

#### a) Normality Test

The normality test in this study was used to test student learning motivation data using the Kolmogorov-Smirnov method. Data normality test provisions are if the significance value (Sig.) > 0.05, and then the research data is usually distributed.

Based on the normality test using SPSS 26 with the One-Sample Kolmogorov-Smirnov Test based on the Unstandardized Residual of the dependent variable affecting the independent variable, the results of the Asymp. Sig. (2-tailed) of 0.200 is more significant than 0.05, so this study can be concluded to be normally distributed. Thus, the assumptions or data requirements are distributed normality.

#### b) Homogenitas Test

The homogeneity test is carried out to test whether the samples have the same variance. To determine whether the two samples are homogeneous, it is necessary to test the homogeneity of the variance first with a significant level of  $\alpha = 5\%$ .

Based on the results of data analysis on learning motivation, the significance value based on the mean is 0.10, more significant than 0.05, with a relevance statistic of 7.264. The homogeneity test of the dependent variable has a significant value greater than 0.05, so it can be concluded that the variable is homogeneous.

The Test of Between-Subjects Effects test above was conducted with the help of SPSS v 26 with the decision that the significant value of the Problem-Based Learning learning model assisted by the Learning video on student learning motivation is 0.000 <0.05, which means that Ho is rejected H1 is accepted. Namely, there is an effect of the Problem-Based Learning model assisted by learning videos on the motivation of social studies learning of grade V students in Gugus I Panakkukang District Makassar City.

### **Critical Thinking Ability**

# 1. Descriptive Analysis

Critical thinking skills are measured using tests in the form of descriptions, namely by giving pretests and post-tests in control and experimental classes. The following are the pretest and post-test critical thinking skills in the control and experimental classes using the Problem-Based Learning learning model assisted by learning videos.

The table above shows that the respondents consisted of 29 students. The mean value of the pretest was 51.21, and the mean value of the post-test was 69.48. For the minimum value of the pretest 25 and post-test 50. As for the maximum value of the pretest 65 and post-test 85. The standard deviation of the data's spread is shown in the pretest at 13.736 and the post-test at 8.616. The overall control class critical thinking ability score on the pretest was 1,485, and the post-test 2,015.

The data in the table above shows that the critical thinking skills of class V students in the pretest control class of 29 people, namely 11 people in the excellent category with a percentage of 38%, 8 people in the sufficient category with a percentage of 28%, and 10 people in the insufficient category with a percentage of 34% while in the post-test control class of 29 people, 23 people in the excellent category with a percentage of 79%, and 6 people in the sufficient category with a percentage of 21%.

The table above shows that the respondents consisted of 27 students. The mean value of the pretest was 56.11, and the mean value of the post-test was 88.89. For the minimum value of the pretest 25 and post-test 50. The maximum value of the pretest is 75, and the post-test is 100. The standard deviation of the data's spread

is shown in the pretest at 13.960 and the post-test at 6.405. The overall control class critical thinking ability score on the pretest was 1,515, and the post-test 2,400.

The data in the table above shows that the critical thinking skills of class V students in the pretest experimental class of 27 people, namely nine people in the excellent category with a presentation of 34%, 12 people in the sufficient category with a percentage of 44%, and 6 people in the poor category with a percentage of 22%, then 21 students get perfect grades with a percentage of 78%. Get scores above the KKM on the implementation of the post-test.

#### 2. Inferential Statistic Analysis

### a. Analysis prerequisite test

#### 1) Normality Test

The normality test in this study was used to test student learning outcomes data using the Kolmogorov-Smirnov method. Data normality test provisions are if the Significance value (Sig.) > 0.05, and then the research data is usually distributed.

Based on the normality test using SPSS 26 with the One-Sample Kolmogorov-Smirnov Test based on the Unstandardized Residual of the dependent variable affecting the independent variable, the results of the Asymp. Sig. (2-tailed) of 0.43 is more significant than 0.05, so this study can be concluded to be normally distributed. Thus, the assumptions or data requirements are distributed normality.

#### 2) Homogenitas Test

The homogeneity test tests whether the samples have the same variance. To determine whether the two samples are homogeneous, it is necessary to test the homogeneity of the variance first with a significant level of  $\alpha = 5\%$ .

Based on the results of data analysis on learning outcomes with a significance value based on a mean of 0.11 greater than 0.05 with a relevance statistic of 6.786. The Homogeneity test of the dependent variable has a significant value greater than 0.05, so it can be concluded that the variable is homogeneous.

The Test of Between-Subjects Effects test above was conducted with the help of SPSS v.26 with the decision making that the significant value of the Problem-Based Learning learning model assisted by Learning Video on students' critical thinking skills is 0.000 <0.05, which means that Ho is rejected H1 is accepted, that is, there is an effect of the Problem-Based Learning model assisted by learning videos on the critical thinking skills of social studies class V students of Gugus I Panakkukang District Makassar City.

#### **Study Result**

### 1. Descriptive Analysis

The Learning outcomes are measured using multiple-choice tests, namely by giving pretests and post-tests in the control and experimental classes. Here are the pretest and post-test student learning outcomes in the control class.

The table above shows that the respondents consisted of 29 students. For the minimum value of the pretest 30 and post-test 50. As for the maximum value of the pretest 70 and post-test 80. The standard deviation as a measure of the spread of the data obtained is shown in the pretest 10.816 and post-test 7.752. The overall control class critical thinking ability score on the pretest was 1,510, and the post-test was 1,920.

The percentage of student learning outcomes in the control class after being given a pretest at the beginning before learning started was 29 students who still got scores below the KKM or still needed guidance with a percentage of 100%. After being given treatment using a conventional learning model and given a post-test, 26 students still needed guidance, and 3 students had obtained sufficient scores or passed the KKM limit. Based on these data, it can be concluded that using conventional learning models cannot optimally improve student learning outcomes.

The table above shows that the respondents consisted of 27 students. The mean value of the pretest was 53.70, and the mean value of the post-test was 88.15. For the minimum value of pretest 30 and post-test 80. As for the maximum value of pretest 80 and post-test 100. The standard deviation of the data's spread is shown in the pretest at 13.344 and the post-test at 7.357. The overall experimental learning outcome value was pretest 1,450 and post-test 2,380.

Based on the table of percentage achievement of learning outcomes above, in the pretest with 27 students who still need guidance with a percentage of 97%, one student who is categorized as sufficient with a presentation of 3% and after being given a post-test, there are still ten students who are classified as enough, there are 12 students who get good grades with a percentage of 44%, there are five students who get excellent grades with a rate of 19%, on the implementation of the post-test. The following is a histogram of the achievement of learning outcomes in the experimental class on the implementation of the pretest and post-test.

#### 2. Inferential Statistic Analysis

#### a. Analysis Prerequisite Test

### 1) Normality Test

This research used the normality test to test student learning outcome data using the Kolmogorov-Smirnov method. The data provisions for the normality test are as follows: if the significance value (Sig.) is > 0.05, then the research data is usually distributed.

Based on the normality test using SPSS 26 with the One-Sample Kolmogorov-Smirnov Test based on the Unstandardized Residual of the dependent variable influencing the independent variable, the Asymp value was obtained. Sig. (2-tailed) of 0.078 is more significant than 0.05, so this research can be concluded to have a normal distribution. Thus, the assumption or requirement is that the data is usually distributed.

#### 2) Homogenitas Test

The homogeneity test is carried out to test whether the samples have the same variance. To determine whether the two samples are homogeneous, it is necessary to test the homogeneity of variance first with a significance level of  $\alpha = 5\%$ .

The results of data analysis on learning outcomes with a significance value are based on a mean of 0.926 greater than 0.05 with a relevance statistic of 0.17. The homogeneity test of the dependent variable has a significant value greater than 0.05, and it can be concluded that the variable is homogeneous.

The Test of Between-Subjects Effects test above was carried out with the help of SPSS v.26 with the decision-making that the significant value of the Problem-Based Learning learning model assisted by Learning Media on student learning outcomes is 0.000 < 0.05, which means that Ho is rejected H1 is accepted; namely, there is an effect of the Problem-Based Learning model assisted by learning videos on the learning outcomes of social students in grade V Gugus I Panakkukang District Makassar City.

#### **Discussion**

# Implementation of Problem-Based Learning to Increase Student Motivation and Engagement in Learning.

Students look very active in implementing the teaching and learning process by applying the problem-based learning model that the teacher has implemented. The condition of the teaching and learning process is so pleasant that it makes students not leave and do not feel bored when doing the tasks given by the teacher. The learning that was carried out created activities that stimulated students' curiosity by providing problems related to students' daily lives, group work, doing work, and presenting.

During the learning process, students were also very interested in discussing the problems given by the teacher, which challenged them to solve them. Students and their groups tried their best to do the tasks because they wanted to succeed and get the best score. When the teacher allowed presenting, the group representatives came forward. They presented the results of the group's work in front of the class and responded to the work of other groups.

To increase student motivation to the maximum, it is hoped that teachers can read the syntax of applying the Problem-Based Learning model again and continually apply it in the learning process at school so that it can form students who have an independent attitude toward learning. An independent attitude here can be understood as one in which when a student learns, he can choose and determine the strategy he feels is based on his ability or learning style. That way, students will also be more skilled in using these strategies to learn, control their learning process, and be motivated to solve problems encountered in the learning process.

In Problem-Based Learning, students understand the concept of a material studied by being faced with a problem, so all components of learning motivation can be done to support Problem-Based Learning. The components of motivation in question are the ability to prove the truth when conducting discussions, defending opinions, completing tasks, and gaining new knowledge. This aligns with the theory of

constructivism, which shows that learning is more effective and meaningful when students can interact with problems or concepts Latifah Abdiyah. In this case, the teacher's approach can motivate students to learn.

The learning process can be influenced by the effectiveness of the application of the PBL learning model, where, in this case, students are invited to think about solving a problem given by the teacher, and they are given the freedom to solve it so that students become more enthusiastic in learning. The problems provided by the teacher to students are problems that are close to everyday life, so students find it easier to find solutions to these problems. During the discussion, students needed help to ask their group members. Likewise, with capable students, students can become increasingly motivated to improve their abilities by contributing many opinions on existing problems. In line with the findings above, Ralph Katz's conclusions state that student participation in discussions will motivate learning.<sup>11</sup>

The attitude of helping each other in the learning process is also by humanistic theory, which is a theory that states that humans have the right to recognize themselves as a step to learning so that it is hoped that humans will be able to actualize themselves and humanize other humans. As an application of this humanistic theory, it is expected that the teacher's role, namely collaboration with the group, makes peers significantly influence students' cognitive development. Therefore, learning in class should be better, and students should cooperate with friends who are more skilled or superior to complete the task well. 13

The explanation above shows that motivation by applying the Problem-Based Learning model in the experimental class is better than student learning motivation in the control class without applying the Problem-Based Learning model learning. Applying the Problem-Based Learning model descriptively affects student learning motivation in social studies class V Elementary School Gugus I Panakkukang District Makassar City.

Based on the above conclusions, in line with the results of research by Ni Putu

Achievement Motivation.," International Journal of Instruction 14, no. 1 (2021): 325–344.

<sup>&</sup>lt;sup>11</sup> Ralph Katz, "Motivating Technical Professionals Today," *Research-Technology Management* 48, no. 6 (2005): 19–27.

<sup>&</sup>lt;sup>12</sup> Yaghoob Javadi and Mozhdeh Tahmasbi, "Application of Humanism Teaching Theory and Humanistic Approach to Education in Course," *Theory and Practice in Language Studies* 10, no. 1 (2020): 40–48.

<sup>13</sup> Khoirul Anwar et al., "Students' Perceptions of Collaborative Team Teaching and Student

Suari, which showed that learning motivation can effectively increase learning motivation, the discussion showed an effect of the Problem-Based Learning (PBL) learning model on student learning motivation. <sup>14</sup> Furthermore, research by Mardani et al. shows that selecting a suitable learning model will affect motivation and learning outcomes for students in social studies. Students with a solid motivation to learn will strive to obtain higher learning outcomes. Uno argues that motivation is an internal and external drive of students learning to change their behaviour. Then, Anisaunnafi'ah's research shows that the problem-based learning model influences social studies learning motivation. This is evidenced by the results of the calculation of the average motivation scale score in the experimental class, which is more significant than the control group. <sup>15</sup>

# The Effect of Video Assisted Problem Based Learning Model on Students' Motivation and Critical Thinking Ability Improvement.

The problem-based learning model assisted by learning videos positively affects students. Students are motivated to carry out the teaching and learning process by applying the problem-based learning model, which is assisted by learning videos. Sun-Yi's research revealed the same thing. The teaching and learning process is fun, and the learning video displayed through the projector does not make students feel bored. The learning creates activities that stimulate students' curiosity by providing problems related to students' daily lives.<sup>16</sup>

Learning with the Problem-Based learning model can improve students' critical thinking skills. The Problem-Based Learning (PBL) learning model is a problem-based teaching model that directs students to think critically and provides skills for solving problems and acquiring knowledge.<sup>17</sup> The results of this study indicate an increase in students' critical thinking skills when using the PBL model.

<sup>&</sup>lt;sup>14</sup> Ni Putu Suari, "Penerapan Model Pembelajaran Problem Based Learning Untuk Meningkatkan Motivasi Belajar IPA," *Jurnal Ilmiah Sekolah Dasar* 2, no. 3 (2018): 241–247.

<sup>&</sup>lt;sup>15</sup> Rifka Anisaunnafi'ah, "Pengaruh Model Problem Based Learning Terhadap Motivasi Belajar IPS Pada Siswa Kelas IV Sd Negeri Grojogan," *BASIC EDUCATION* 4, no. 14 (2015).

<sup>&</sup>lt;sup>16</sup> YANG Sun-Yi and O H Yun-Hee, "Video-Assisted versus Traditional Problem-Based Learning: A Quasi-Experimental Study among Pediatric Nursing Students," *Journal of Nursing Research* 31, no. 3 (2023): e277.

<sup>&</sup>lt;sup>17</sup> Dinda Ayunda, Awang Kustiawan, and Euis Erlin, "Pengaruh Model Problem Based Learning Berbasis TPACK Terhadap Peningkatan Kemampuan Berpikir Tingkat Tinggi Siswa," *J-KIP (Jurnal Keguruan dan Ilmu Pendidikan)* 3, no. 3 (2022): 584–591.

# The Effect of Problem-Based Learning Model was assisted by learning videos on students' social studies learning outcomes.

Student learning outcomes in the control and experimental classes are determined using a pretest to determine student learning outcomes before the learning model is applied and a post-test to determine student learning outcomes after treatment using a learning model. The instrument used is a multiple-choice test consisting of ten questions.

The results of the tests that have been carried out show a difference in learning outcomes; this can be seen from the post-test scores of the experimental and control classes. The acquisition of these values shows that the post-test learning outcomes in the experimental class are higher than those in the control class. This is due to the treatment with the Problem-Based Learning model in the experimental class. If it is associated with indicators of student learning outcomes completeness, then student learning outcomes in the experimental group by applying the Problem-Based Learning learning model are classically complete. These results are corroborated by Bekti Ariyani's research, which concluded that the Problem-based learning model improved student learning outcomes.<sup>18</sup>

Based on the description above, it can be concluded that the learning outcomes of social studies class V Elementary School Gugus I Panakkukang District Makassar City in the experimental group using the Problem-Based Learning Model are better than those of the control group without using the Problem-Based Learning Model. So, applying the Problem-based Learning model affects students' learning outcomes in the social studies class at V Elementary School Gugus I Panakkukang District Makassar City.

In line with the research results of Idris, I., Sida, S.C., & Idawati, I., <sup>19</sup> applying the Problem-Based Learning model in learning activities can affect student learning outcomes. This is evidenced by the experimental class, which, especially after being given treatment, obtained a higher post-test score than the control. The Problem-Based

<sup>&</sup>lt;sup>18</sup> Bekti Ariyani and Firosalia Kristin, "Model Pembelajaran Problem Based Learning Untuk Meningkatkan Hasil Belajar IPS Siswa SD," *Jurnal Ilmiah Pendidikan Dan Pembelajaran* 5, no. 3 (2021): 353–361.

<sup>&</sup>lt;sup>19</sup> Irfandi Idris, Syarifuddin Cn Sida, and Idawati Idawati, "Pengaruh Model Problem Based Learning Terhadap Keterampilan Proses Dan Hasil Belajar IPS Siswa SD," *Indonesian Journal Of Primary Education* 3, no. 2 (2019): 58–63.

Learning model makes the learning process more student-centered, contextual, engaging, and practical so that students are more active in asking and answering questions about the material being studied. At the same time, Ariyani's research, Rahmawati,<sup>20</sup> shows that the Problem-Based Learning learning model can improve learning outcomes. This shows that the problem-based learning model is efficacious in improving the learning outcomes of elementary school students in social studies.

#### Conclusion

From the research and discussion results, it can be concluded as follows: *First*, Normality and Homogeneity Test: (1) Student learning motivation data in control and experimental classes are generally distributed with Asymp. Sig. (2-tailed) of 0.200. (2) The variance of learning motivation between the two classes is not homogeneous (significance value 0.009), but the variance of learning outcomes is homogeneous (significance value 0.926). Second, Hypothesis Test: Problem-Based Learning (PBL) model assisted by learning videos has a significant effect on student learning motivation (significance value 0.000) and critical thinking skills (significance value 0.000) in fifthgrade social studies students in Gugus I Panakkukang District, Makassar City.

Second, Descriptive Analysis: Critical Thinking Ability: (a) Control class: The average pretest value was 51.21, and the post-test was 69.48, with an increase in the excellent category from 38% to 79%. (b) Experimental class: Average pretest score 56.11, post-test 88.89, with an increase in the superb category from 34% to 78%. Third, Learning Outcomes: (a) Control class: Average pretest score 52.07, post-test 66.21, with 90% of students needing guidance. (b) Experimental class: Average pretest score 53.70, post-test 88.15, with 19% of students excellent, 44% good, and 37% fair. Applying the PBL model, assisted by learning videos, improved learning motivation, critical thinking skills, and learning outcomes of fifth-grade social studies students in Gugus I Panakkukang District, Makassar City.

<sup>&</sup>lt;sup>20</sup> Ery Rahmawati, "Penerapan Model Problem Based Learning Terhadap Hasil Belajar IPS Materi Pemanfaatan Sumber Daya Alam Pada Siswa Kelas IV Sekolah Dasar," *Jurnal Primary (Kajian Ilmu Pendidikan Dasar dan Humaniora)* 1, no. 1 (2020): 21–30.

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