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The Influence Of The Project Based Learning (PJBL) Learning Model On Student Learning OutComes In PPKN Subject

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ABSTRACT

This research is motivated by the learning process which is still conventional. This research aims to determine student learning outcomes by implementing the Project Based Learning (PjBL) learning model in PPKn subjects in class V. This research approach uses a quantitative research type, Pre-experimental research design with a One Group Pre test-Post test design. Design. This research uses documentation study instruments, learning outcomes tests. Hypothesis testing using paired sample t-Test. The results of the hypothesis test on learning outcomes obtained a value of sig = 0.000. This means, the results of hypothesis testing on learning outcomes, pretest data, posttest data have a significant value <0.05, so Ho is rejected or Ha is accepted. So, it can be concluded that there is an influence of the application of the Project Based Learning (PjBL) learning model on student learning outcomes in PPKn subjects. The test results of the average normalized gain (n-gain) of learning outcomes, the average score for increasing student learning outcomes calculated based on the normalized gain was obtained at 0.7761 with high criteria. Meanwhile, the test results for the average normalized gain (n-gain) percent of learning outcomes were obtained at 77.6067%, which shows the effective interpretation category. So, it can be concluded that the application of the Project Based Learning (PjBL) learning model to student learning outcomes in Civics subjects is effective.

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1. INTRODUCTION

In the current independent curriculum, a learning model that prioritizes students' autonomous abilities is an important learning model for honing students' thinking abilities. The Project Based Learning (PjBL) learning model is an innovative student-centered learning model that places teachers as motivators and facilitators, where students are given the opportunity to work autonomously to construct their learning (Al-Tabany, 2014: 42 in Widyastuti , et al., 2016). According to Thomas (Devi, et al., 2019), the PjBL learning model is learning that requires complex tasks, based on challenging questions/problems, which involves students in designing, solving problems, making decisions, or investigative activities, giving participants students the opportunity to work independently over a period of time and culminate in a realistic product or presentation. From these various opinions, it can be concluded that the PjBL learning model is an innovative learning model which aims to produce projects or activities that can be proven in the form of reports, essays, or completion of written assignments.

In reality, the project based learning model is still not implemented well. Based on the results of observations made in class V UPTD SD Negeri 3 Dukuhjati, Krangkeng District, Indramayu Regency, it shows that student learning outcomes are still low. This is because the learning process is still conventional. This conventional learning model can provide limitations in providing learning experiences. So, students are less able to detail (C4), students are less able to conclude (C5), and students are less able to produce work (C6). Therefore, it is necessary to prove whether PjBL has an influence on student learning outcomes.

Research with similar variables has been carried out by previous researchers. Khairina (2020) entitled The Influence of the Project Based Learning Model on Student Learning Outcomes in Class V Civics Learning at the Adnan Modern Islamic Boarding School Private Elementary School, Medan Sunggal District. In this research, it was proven that the Civics learning outcomes of students taught using the Project Based Learning learning model (experimental class) were higher than the learning outcomes using conventional methods (Control class). Furthermore, research by Sari et.al (2022) entitled The Influence of the Project Based Learning (PjBL) Learning Model on Geography Learning Results for Class X SMA PGRI 1 Palembang. The research results showed that the results of data analysis, the average test results of the experimental class students' learning outcomes were 82.3 and the control class average was 72.5. Based on the results of the t-test, tcount = 5.077, then compared to ttable = 1.671, tcount > ttable, namely 5.077 > 1.671. These results prove that there is a significant influence between the Project Based Learning learning model on the geography learning outcomes of class X. This shows that Project based learning has a good impact on learning outcomes.

Based on the basis of this research, there is a need to prove how the Project based learning learning model is implemented well. For this reason, the aim of this research is to carry out the process of proving the hypothesis in this research, namely that with the PjBL model students can influence the ability of students' learning outcomes in PKN subjects in class V UPTD SD Negeri 3 Dukuhjati, Indramayu Regency.

2. LITERATURE REVIEW

2.1. Project Based Learning (PjBL) Model

The Project Based Learning (PjBL) learning model is a learning model that involves students in problem solving activities and gives students the opportunity to work autonomously to

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construct their own learning and ultimately produce students' products/works that have realistic value (Trianto, 2011 in Dianawati, 2022).

The PjBL learning model is a learning approach that requires comprehensive learning where the student learning environment (class) is designed so that students can carry out investigations into authentic problems, including deepening the material of a learning material, and carrying out other meaningful tasks (Ministry of National Education, 2003 in Apriliani and Panggayuh , 2018). The PjBL learning model is an innovative learning model that emphasizes contextual learning through complex activities such as giving students freedom to explore, plan learning activities, carry out projects collaboratively, and ultimately produce a product (Cord, et al., in Faizah , 2015).

These various opinions can be concluded that the PjBL learning model is a learning model that is student-centered and provides opportunities for students to work autonomously to construct their own learning and ultimately produce a product/work.

2.2. Understanding Learning Outcomes

Learning outcomes are the level of mastery achieved by students in participating in teaching and learning programs in accordance with the stated educational objectives which include cognitive, affective and psycho-motor aspects (Bundu, 2016: 17 in Riyana, 2019: 12). The result of learning is that if someone has learned there will be a change in that person's behavior, for example from not knowing to knowing, and from not understanding to understanding (Hamalik, 2006: 30 in Rahmawati, 2019: 8).

Learning outcomes are a benchmark used to determine the level of success of students in knowing and understanding a subject, usually expressed in grades in the form of letters or numbers (Rizqi, 2019: 12). From these various opinions, it can be concluded that learning outcomes are the results given to students after following the learning process to determine the level of mastery achieved by participants covering cognitive, affective and psychomotor aspects.

3. METHOD

This type of research is quantitative research, in this approach the data will be analyzed quantitatively or statistically with the aim of testing the hypothesis that has been proposed. The method used in this research is experimental research methods. According to Sudargo (2008), experimental research is research that is closest to the scientific method. Researchers give different treatments to two groups and study the consequences of the treatment given. The results of the research have a straightforward and clear interpretation (KTI Guidelines, 2022–2023: 33).

The design of this research is Pre-experimental design with a One Group Pre test-Post test design. One experimental class group was given a pre-test before treatment and a post-test after treatment, then the results were measured by comparing the results of the pre-test and post-test (KTI Guidelines, 2022–2023: 35-36). For more details, the One Group Pre test-Post test Design can be seen in Table 1 below (Sugiyono, 2014: 75 in Widyastuti, 2016):

Table 1 One Group Pretest-Posttest Research Design

Pre-test	Perlakuan	*Post-test*
O_1	X	O_2

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Information:
O1 = pre-test value (before treatment)
O2 = post-test value (after treatment)
X = treatment given (by applying the Project Based Learning learning model)

This research was conducted at UPTD SD Negeri 3 Dukuhjati, Krangkeng District, Indramayu Regency. The population in this study were students in class V UPTD SD Negeri 3 Dukuhjati, Krangkeng District, Indramayu Regency with a total of 30 students. The sample in this study was the entire population, namely 30 students in class V UPTD SD Negeri 3 Dukuhjati, Krangkeng District, Indramayu Regency. The sampling technique in this research uses a total sampling technique, namely if all members of the population are sampled (Sugiyono, 2010: 65 in Fitriani, 2018). Thus, the sample in this study was 30 students in class V UPTD SD Negeri 3 Dukuhjati, Krangkeng District, Indramayu Regency.

In accordance with the objective of the hypothesis, the application of the Project Based Learning (PjBL) learning model has a significant effect on student learning outcomes in PPKn subjects. So the validity of the hypothesis test will be tested using the paired sample t-test. Before testing the hypothesis, several steps are carried out first, namely as follows:

1) Normality Test

The normality test was carried out using the Shapiro-Wilk test because the Shapiro-Wilk test is usually used for small samples. This normality test uses the SPSS version 26 application. The normality test is used to determine whether the data is normally distributed or not, provided that the data is normally distributed if it meets the criteria for a sig value > 0.05, conversely if the sig value < 0.05 then the data is said to be not distributed normal.

2) Homogeneity Test

The homogeneity test is carried out to determine whether the sample group has the same variance or not. If they are the same, then the group is homogeneous. In this study, homogeneity was tested, namely pretest and posttest data. Testing was carried out using a significance level of 0.05. The probability of significance is <0.05, so the variance of the two data groups is not homogeneous. The probability of significance is > 0.05, so the variance of the two data groups is homogeneous. The homogeneity test in this study used the Levene test. The homogeneity test of learning outcomes in this study used the Statistical Product and Service Solutions (SPSS) version 26 application.

3) Normalized gain (n-gain) test

Normalized gain (n-gain) test obtained from the pretest and posttest results. The average n-gain test was carried out to determine the increase in student learning outcomes. From the n-gain value, we can see the effectiveness of implementing the Project Based Learning (PjBL) learning model on student learning outcomes in PPKn subjects. The n-gain test is carried out using a normalized gain score, with the following formula (Hake, 1999 in Susanto, 2012):

$$< g >= \frac{(\boldsymbol{post\ test\ score - pre\ test\ score}}{\boldsymbol{max\ score - pre\ test\ score}}$$

Information:
<g> = normalized score gain
Post test score = Post test result score
Pre test score = Pre test result score
Maximum score = Highest score

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normalized gain (n-gain) can be classified as follows:

Table 2 Interpretation of Normalized Gain (N-Gain)

Magnitude of N-Gain	Interpretation
g > 0,7	High
0,3 ≤ g ≤ 0,7	Medium
g < 0,3	Low

Gain Index Effectiveness Interpretation Categories can be seen in the table below Sugiyono (2019):

Table 3. Category Interpretation of the Effectiveness of the Normalized Gain Index (N-Gain)

Gain Index	Interpreted
g < 40	Ineffective
40 < g ≤ 55	Less Effective
55 < g ≤ 75	Moderately Effective
g > 75	Effective

1) Hypothesis testing

Hypothesis testing is used to see significant differences between student test results from pretest results without treatment and posttest results after treatment. In the hypothesis testing section used by researchers, namely the paired sample t-Test. Paired sample t-Test is a test of the difference between two paired samples. Paired samples are the same subjects, but experience different treatments. Hypothesis testing for learning outcomes in this study used the Statistical Product and Service Solutions (SPSS) application version 26. Testing was carried out using a significant 0.05 (α=5%) between the independent variable and the dependent variable.

The basis for making a decision to accept or reject Ho in this test is as follows.

a) If the significant value is > 0.05 then Ho is accepted or Ha is rejected.
b) If the significant value is <0.05 then Ho is rejected or Ha is accepted.

The Paired Sample t-test formula is as follows:

$$T_{hit} = \frac{\overline{D}}{\frac{SD}{\sqrt{n}}}$$

$$SD = \sqrt{var}$$

$$var\ (s^2) = \frac{1}{n-1}\sum_{i=1}^{n}(x_i - \bar{x})^2$$

t = calculated t value
$\overline{D}$ = average difference between measurements 1 and 2
SD = standard deviation of the difference between measurements 1 and 2
n = number of samples.
Interpretation

a) To interpret the t-test, you must first determine: The significance value α. Df (degree of freedom) = N – k, especially for paired sample t-test df = N – 1

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b) Compare the value of t_{hit} with t_{tab}=$_{\alpha;n-1}$
If: $thit > ttab$ → is significantly different ($H0$ is rejected)
$thit < ttab$ → not significantly different ($H0$ is accepted)

4. RESULTS AND DISCUSSION

Before conducting the research, the research instrument was tested by conducting a validity test, reliability test, difficulty index test, and discrimination test on student learning outcomes tests using the Statistical Product and Service Solutions (SPSS) version 26 application. The research instrument test was carried out in class. VI UPTD SD Negeri 3 Dukuhjati, Krangkeng District, Indramayu Regency on Saturday 20 May 2023. Test The research instrument test results are as follows:

a) Validity test

The validity test is carried out to determine the validity of the question items using the product moment correlation formula. The validity test is used to determine the validity of the research instrument. The results of the validity test of the learning outcomes test can be seen in the table below:

Table 4 of Validity Test Results of Learning Results Tests

Question	$r_{calculation}$	r_{table}	Information
1	0,819	0,361	Valid
2	0,921	0,361	Valid
3	0,746	0,361	Valid
4	0,814	0,361	Valid
5	0,953	0,361	Valid

Based on the table above, the results of the validity test of the learning outcomes test, question number one obtained an rcalculation value of 0.819, question number two obtained an rcalculation value of 0.921, question number three obtained an rcalculation value of 0.746, question number four obtained an rcalculation value of 0.814, and question number five obtained an rcount value of 0.953 which was then compared with an rtable value of 0.361. This means that the results of the validity test of the learning outcomes test are declared valid, because the value of rcount > rtable.

b) Reliability Test

Reliability testing to prove the degree of validity of the data is carried out using the Alpha formula. Reliability testing is used to determine the reliability of research instruments. The results of the reliability test of the learning outcomes test can be seen in the table below:

Table 5 of Reliability Test Results for Learning Outcome Tests

r_{count}	r_{table}	Description
0,821	0,361	Reliabel

Based on Table above, the results of the reliability test of the learning outcomes test obtained an rcount value of 0.821 which was compared with the rtable value = 0.361. This means that the results of the reliability test of the learning outcomes test are reliable because rcount > rtable.

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c) Difficulty Index Test

The difficulty index test is a method used in measurement and assessment to evaluate how difficult or easy a particular test or question is. Researchers use the equation formula from (Daryanto, 2012). The difficulty index test is used to test test questions in terms of difficulty so that it can be obtained which questions fall into the difficult, medium and easy categories. The results of the learning outcomes test difficulty index test can be seen in the table below:

Tabel 6 Test Results Learning Outcomes Test Difficulty Index

Question	Difficulty Index	Category
1	0,88	Easy
2	0,78	Easy
3	0,68	Medium
4	0,29	Difficult
5	0,69	Medium

Based on the table above, the results of the learning outcomes test difficulty index test, question number one got a score of 0.88, question number two got a score of 0.78, question number three got a score of 0.68, question number four got a score of 0 .29, and question number five received a value of 0.69. This means that the results of the difficulty index test for learning results for questions number one and two have an easy level of difficulty because they meet the criteria for questions with p 0.71 to 1.00, questions number three and five have a medium level of difficulty because they meet the criteria for questions with p 0, 31 to 0.70, and question number four has a difficult level of difficulty because it meets the question criteria with p 0.00 to 0.30.

d) Discriminating Power Test

The differentiating power test was carried out using the formula from Sudijono (2006). The discriminating power test is used to determine which items have a classification of discriminating power as very bad, poor, fair, good, or very good. The results of the differentiating power test for learning outcomes can be seen in the table below:

Table 7 Differentiating Power Test Results for Learning Outcome Test

Questions	differentiating power	Categories
1	0,774	Very Good
2	0,896	Very Good
3	0,665	Good
4	0,683	Good
5	0,852	Very Good

Based on the table above, the results of the differentiating power test of the learning outcomes test, question number one got a score of 0.774, question number two got a score of 0.896, question number three got a score of 0.665, question number four got a score of 0.683, and question number five got a value of 0.852. This means that the results of the differentiating power test results from studying questions number one, two and five have very good differentiating power because they meet the criteria for questions with d: 0.71 – 1.00, questions

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number three and four have good differentiating power because they meet question criteria with d: 0.41 – 0.70.

After testing the research instruments, research was then carried out using pretest and posttest learning outcomes tests using the Statistical Product and Service Solutions (SPSS) version 26 application. The research was conducted in class V UPTD SD Negeri 3 Dukuhjati, Krangkeng District, Indramayu Regency on Tuesday, May 23 2023. The results of research on student pretest and posttest learning outcomes can be seen in the table below:

Table 8 Test Results for Pretest and Posttest Learning Results of Students

No	Students	*Pretest*	*Posttest*
1	Alipahtun Mar'Ah	3,33	8,00
2	Armansyah	2,67	7,33
3	Asihatul Azkiyah	5,33	10,00
4	Asyrof Choirul. A	4,67	8,67
5	Ayatul Khusna	6,00	9,33
6	Azka Aulia	5,33	8,00
7	Azzahra Syaira. R	4,67	8,67
8	Chuaida Izzatul. K	7,33	10,00
9	Daelah	3,33	8,67
10	Dimas Prayoda	5,33	8,67
11	Ghust Iksandar. B	3,33	8,67
12	Hin Khanudah	4,00	9,33
13	Ikbal Alamsyah	3,33	8,67
14	Irna Aulia	5,33	10,00
15	Khaerul Anam	3,33	8,67
16	Khoiru Fikri. F. A	3,33	8,00
17	Khoirul Mikail	3,33	8,67
18	M. Labib Ehsan	4,67	8,00
19	M. Saefurrahman	2,00	6,67
20	Marisa Rahma	4,67	8,67
21	Najmatul Layali	6,00	10,00
22	Nazilah Syafitri	5,33	9,33
23	Nur Aisyah	4,67	9,33
24	Nurul Syuhada. A	4,67	9,33
25	Nuruzzaman	3,33	8,00
26	Rehan Nahdi Al. F	4,00	8,00
27	Rizky Nur Fadil	4,00	7,33
28	Shalwa Anin Dita	6,67	9,33
29	Stefen Gunawan	3,33	8,00
30	Zydna Marsya. A	7,33	9,33
Number of Students (N)		30	30
Average value		4,49	8,69
Maximum Value		7,33	10,00
Median Value		4,67	8,67

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Minimum Value	2,00	6,67

Based on Table above, the results of the pretest and posttest learning outcomes with a total of 30 students, obtained an average score for the pretest learning outcomes of 4.49 and the posttest learning outcomes of 8.69. The maximum score for the pretest learning outcomes test was 7.33 and the posttest learning outcomes test score was 10.00. The median score for the pretest learning outcomes test was 4.67 and the posttest learning outcomes test score was 8.67. The minimum score for the pretest learning results is 2.00 and the posttest learning results is 6.67. This means that the posttest learning outcomes test results are higher than the pretest learning outcomes test results, because the average score for the posttest learning outcomes test is 8.69, which is higher than the average score for the pretest learning outcomes test, which is 4.49. So, it can be concluded that by implementing the Project Based Learning (PjBL) learning model, students' learning outcomes in the posttest learning results have increased significantly compared to the pretest test results before being given treatment.

After knowing the results of the pretest and posttest learning outcomes, students were then subjected to a normality test, homogeneity test, and hypothesis test to test student learning outcomes using the Statistical Product and Service Solutions (SPSS) version 26 application. The research results are as follows:

a. Normality test

The normality test was carried out using the Shapiro-Wilk test because the Shapiro-Wilk test is usually used for small samples. The normality test is used to determine whether the data is normally distributed or not, provided that the data is normally distributed if it meets the criteria for a sig value > 0.05, while the data is abnormally distributed if it meets the criteria for a sig value < 0.05. The results of the normality test of the learning outcomes test can be seen in Table 4.6 below:

Table 9 Normality Test Results of Learning Outcome Tests

Tests of Normality						
	Kolmogorov-Smirnov[a]			***Shapiro-Wilk***		
	Statistic	***Df***	**Sig.**	***Statistic***	***Df***	**Sig.**
Pretest	,174	30	,021	,939	30	,085
Posttest	,156	30	,060	,935	30	,067
Lilliefors Significance Correction						

Based on Table above, the normality test results of the pretest learning outcomes test obtained a significant value of 0.085 and the normality test results of the posttest learning outcomes test obtained a significant value of 0.067. This means that the normality test results of the learning outcomes test meet the normal distribution of data because they meet the criteria for a sig value > 0.05.

b. Homogeneity Test

The homogeneity test was carried out using the Levene test. The homogeneity test is carried out to determine whether the sample groups have the same variance or not, provided that the variance of the two groups of data is homogeneous if the probability of significance is > 0.05, while the variance of the two groups of data is not homogeneous if the probability of significance is < 0.05.

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The results of the homogeneity test of the learning outcomes test can be seen in the table below:

Table 10 of Homogeneity Test Results for Learning Outcome Tests

Test of Homogeneity of Variances					
		Levene Statistic	***df1***	***df2***	**Sig.**
Variabel	*Based on Mean*	,363	1	58	,549
	Based on Median	,293	1	58	,591
	Based on Median and with adjusted df	,293	1	58,000	,591
	Based on trimmed mean	,369	1	58	,546

Based on the table above, the results of the homogeneity test of the pretest and posttest learning outcomes obtained a significant value of 0.549. This means that the homogeneity test results of the pretest and posttest learning outcomes data have a homogeneous variance because they meet the criteria for probability significance > 0.05.

c. Hypothesis testing

Hypothesis testing was carried out using the paired sample t-Test. Paired sample t-Test is a test of the difference between two paired samples. Hypothesis testing is used to test temporary assumptions in research, with the stipulation that if the significant value is > 0.05 then Ho is accepted or Ha is rejected, and if the significant value is < 0.05 then Ho is rejected or Ha is accepted. The results of the learning outcomes test hypothesis can be seen in Table below:

Table 11 of Hypothesis Test Results Learning Outcome Tests

Paired Samples Test									
		Paired Differences					**T**	**Df**	**Sig. (2tailed)**
		Mean	***Std. Deviation***	***Std. Error Mean***	***95% Confidence Interval of the Difference***				
					Lower	***Upper***			
Pair 1	***Pretest – Posttest***	-4,20000	,92889	,16959	-4,54685	-3,85315	-24,765	29	,000

Based on the table above, the results of the hypothesis test for the pretest and posttest learning outcomes were -24.765 < 2.045 or $thit < ttab$, and the sig value = 0.000. This means, the results of the hypothesis test on the learning outcomes of the pretest and posttest data have a significant value <0.05, so Ho is rejected or Ha is accepted. So, it can be concluded that there is an influence of the application of the Project Based Learning (PjBL) learning model on student learning outcomes in PPKn subjects.

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To determine the effectiveness of implementing the Project Based Learning (PjBL) learning model on student learning outcomes in PPKn subjects, a normalized gain (n-gain) test can be carried out. The average normalized gain (n-gain) value test was carried out using the normalized gain score. This n-gain test uses the Statistical Product and Service Solutions (SPSS) version 26 application. The n-gain average value test is used to determine the increase in student learning outcomes with the n-gain criteria if g > 0.7 (high), if 0.3 ≤ g ≤ 0.7 (medium), and if g < 0.3 (low). The average normalized gain (n-gain) results of the learning outcomes test can be seen in Table below:

Table 12 Average Normalized Gain (N-Gain) Test Results Learning Results Test

Descriptive Statistics					
	N	***Minimum***	***Maximum***	***Mean***	***Std. Deviation***
NGain_Score	30	,56	1,00	,7761	,12564
Valid N (*listwise*)	30				

Based on the table above, the average normalized gain (n-gain) test results of the pretest and posttest learning outcomes were 0.7761. This means that the average n-gain test results of the pretest and posttest learning outcomes data have high criteria because g > 0.7.

The test results of the average normalized gain (n-gain) percent of learning outcomes tests can be seen in the table below:

Table 13 Test Results for Average Normalized Gain (N-Gain) Percent Learning Results Test

Descriptives				
			Statistic	***Std. Error***
NGain_Persen	*Mean*		77,6067	2,29395
	95% Confidence Interval for Mean	*Lower Bound*	72,9150	
		Upper Bound	82,2983	
	5% Trimmed Mean		77,5583	
	Median		77,5000	
	Variance		157,866	
	Std. Deviation		12,56449	
	Minimum		55,56	
	Maximum		100,00	
	Range		44,44	
	Interquartile Range		16,16	
	Skewness		,244	,427
	Kurtosis		-,416	,833

Based on the table above, the test results of the average normalized gain (n-gain) percent of pretest and posttest learning outcomes obtained a percentage of 77.6067%. This means that the average test results of the n-gain percent of the pretest and posttest data learning outcomes test have effective criteria because g > 75. So, it can be concluded that the application of the Project Based Learning

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(PjBL) learning model on student learning outcomes in PPKn subjects done effectively.

This research was conducted in class V UPTD SD Negeri 3 Dukuhjati, Krangkeng District, Indramayu Regency. The sample in this research was 30 class V students. The instrument of this research is a learning outcomes test in the form of a pretest and posttest. Based on the results of the pretest and posttest learning outcomes with a total of 30 students, the average score for the pretest learning outcomes was 4.49 and the posttest learning outcomes was 8.69. The maximum score for the pretest learning outcomes test was 7.33 and the posttest learning outcomes test score was 10.00. The median score for the pretest learning outcomes test was 4.67 and the posttest learning outcomes test score was 8.67. The minimum score for the pretest learning results is 2.00 and the posttest learning results is 6.67. This means that the posttest learning outcomes test results are higher than the pretest learning outcomes test results, because the average score for the posttest learning outcomes test is 8.69, which is higher than the average score for the pretest learning outcomes test, which is 4.49. So, it can be concluded that by implementing the Project Based Learning (PjBL) learning model, students' learning outcomes in the posttest learning results have increased significantly compared to the pretest test results before being given treatment.

This is in line with research conducted by Laila Okta Fitriyani (2016, Khairina, 2020), with the title the influence of the project-based learning model (Project Based Learning) on the science process skills of class VII MTs students. Private Matla'ul Anwar Gisting, Tanggamus Regency. The research results showed a significant difference in the average score of the science skills posttest, namely the control class got an average score of 54.46 and the experimental class got 70.31. This research is in line with research conducted by Attalina (2020, Irfana, et al., 2022), the PjBL learning model improves student learning outcomes in both cognitive, affective and psychomotor aspects in elementary citizenship education courses at tertiary level.

To improve student learning outcomes, teachers must be able to apply the Project Based Learning (PjBL) learning model. The Project Based Learning (PjBL) learning model is a learning model that involves students in problem solving activities and gives students the opportunity to work autonomously to construct their own learning and ultimately produce students' products/works that have realistic value (Trianto, 2011 in Dianawati, 2022: Sukackė, V., et al., 2022; Asmi, A. W., Rahmat, F., & Adnan, M. 2022). The PjBL learning model is a learning approach that requires comprehensive learning where the student learning environment (class) is designed so that students can carry out investigations into authentic problems, including deepening the material of a learning material, and carrying out other meaningful tasks (Apriliani & Panggayuh , 2018).

The normality test results of the pretest learning outcomes test obtained a significant value of 0.085 and the normality test results of the posttest learning outcomes test obtained a significant value of 0.067. This means that the normality test results of the learning outcomes test meet the normal distribution of data because they meet the criteria for a sig value > 0.05. So, we can continue with the homogeneity test. The results of the homogeneity test of the pretest and posttest learning outcomes obtained a significant value of 0.549. This means that the homogeneity test results of the pretest and posttest learning outcomes data have

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a homogeneous variance because they meet the criteria for probability significance > 0.05. After carrying out the normality test and homogeneity test, the hypothesis test is then carried out. The results of the hypothesis test of the pretest and posttest learning outcomes were -24.765 < 2.045 or $thit < ttab$, and the sig value = 0.000. This means, the results of the hypothesis test on the learning outcomes of the pretest and posttest data have a significant value <0.05, so Ho is rejected or Ha is accepted. So, it can be concluded that there is an influence of the application of the Project Based Learning (PjBL) learning model on student learning outcomes in PPKn subjects. This is in line with research conducted by (Khairina, 2020), with the title The Influence of the Project Based Learning Learning Model on Student Learning Outcomes in Class V Civics Learning at Adnan Modern Islamic Boarding School Private Elementary School, Medan Sunggal District. The results of the research show that there is an influence of the model. Project Based Learning on PKN learning outcomes for fifth grade students at Adnan Modern Islamic Boarding School Private Elementary School.

This research is also in line with research conducted by (Widyastuti et.al 2016), with the title The Influence of the Project Based Learning Model on Citizenship Education Learning Outcomes in Class IV Elementary School. The results of the research show that the Project Based Learning model has a high influence on learning outcomes. students in Citizenship Education learning in class IV of Rasau Jaya 3 State Elementary School. Lastly, this research is in line with research conducted by (Mayuni et.al 2019), with the title The Influence of the Project Based Learning (PjBL) Learning Model on Science Learning Outcomes. The results of the research show that the Project Based Learning (PjBL) learning model has an effect positive impact on the science learning outcomes of class IV students in Cluster I, Seririt District, Buleleng Regency, 2017/2018 Academic Year.

Implementation of learning by applying the Project Based Learning (PjBL) learning model, students study in groups which at the end of the learning produces Pancasila board works. The PjBL learning model is an innovative learning model that emphasizes contextual learning through complex activities such as giving students freedom to explore, plan learning activities, carry out projects collaboratively, and ultimately produce a product (Faizah , 2015; Zhang, L., & Ma, Y., 2023; Đerić, I., Malinić, D., & Đević, R. 2021).

Learning activities by implementing the PjBL learning model can provide stimulus for students in participating in learning, can increase students' learning motivation, can increase students' activeness, can increase students' cooperation. Learning activities using the PjBL learning model, students can learn and complete projects with their peers. This makes learning more interesting and meaningful for students. So that students will focus and pay attention to the material being studied, students will understand more about the material being presented. This is in line with the opinion of (Mayuni, et al., 2019) The advantages of the Project Based Learning (PjBL) learning model are as follows: 1) Increase students' motivation to learn, encourage their ability to do important work, and they need to be appreciated. 2) Improve problem solving abilities. 3) Make students more active and successful in solving complex problems. 4) Increase collaboration. 5) Encourage students to develop and practice communication skills. 6) Improve students' abilities in managing resources. 7) Provide students with learning and practice experience in organizing projects, and making allocations of time and other

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resources such as equipment to complete tasks. 8) Providing learning experiences that involve students in a complex manner and are designed to develop according to the real world. 9) Involve students in learning to retrieve information and demonstrate the knowledge they have, then implement it in the real world. 10) Create a fun learning atmosphere, so that students and educators enjoy the learning process.

In the test results, the average normalized gain (n-gain) of the pretest and posttest learning outcomes was 0.7761. This means that the average n-gain test results of the pretest and posttest learning outcomes data have high criteria because g > 0.7. Meanwhile, the average normalized gain (n-gain) test results of the pretest and posttest learning outcomes obtained a percentage of 77.6067%. This means that the average test results of the n-gain percent of the pretest and posttest data learning outcomes test have effective criteria because g > 75. So, it can be concluded that the application of the Project Based Learning (PjBL) learning model on student learning outcomes in PPKn subjects done effectively.

Effectiveness of the Project Based Learning (PJBL) Learning Model in Increasing Student Interest and Learning Outcomes in Elementary Schools. The results of the research show that the use of the PjBL learning model is effective improve the learning outcomes of grade 4 students at SDN 3 Pecangaan Wetan Jepara. Then this research is in line with research conducted by Mudjiran (2020, Irfana, et al., 2022), there is an influence of using the PjBL learning model on student learning outcomes. Lastly, this research is in line with research conducted by Attalina, 2020 (Irfana, et al., 2022), the PjBL learning model improves student learning outcomes in both cognitive, affective and psychomotor aspects in elementary citizenship education courses at tertiary level. In order to reach the stage of effectiveness in the Project Based Learning (PjBL) learning model, the teacher's role is only as a facilitator, tutor, companion. The Project Based Learning (PjBL) learning model is an innovative learning model that is student centered and places the teacher as a motivator and facilitator, where students are given the opportunity to work autonomously to construct their learning (Widyastuti , et al., 2016). Implementing learning using the PjBL model helps students discover new concepts, new experiences, and can increase interest and learning outcomes (Irfana, et al., 2022; Cahyani, N. K. C., 2021; Patil, K. R., et al., 2020).

5. CONCLUSION

Based on the research results and discussion above, the research conclusions are as follows; 1) student learning outcomes with the application of the Project Based Learning (PjBL) learning model in PPKn subjects in class V UPTD SD Negeri 3 Dukuhjati. It can be concluded that with the application of the Project Based Learning (PjBL) learning model, student learning outcomes in the posttest learning outcomes test experienced a significant improvement compared to the pretest test results before being given treatment; 2) there is an influence of the application of the Project Based Learning (PjBL) learning model on student learning outcomes in Civics subjects. This is supported by the results of the effectiveness of implementing the Project Based Learning (PjBL) learning model on effective criteria.

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