

## Improving Student Learning Outcomes Through Project-Based Learning in Islamic Religion Lessons

Muhammad Aditya Firdaus<sup>1</sup>, Moh Yusup Saepuloh Jamal<sup>2</sup>, Bambang Samsul Arifin<sup>3</sup>,

<sup>1</sup> Universitas Islam Nusantara, Bandung, Indonesia: [adityafirdaus83@uninus.ac.id](mailto:adityafirdaus83@uninus.ac.id)

<sup>2</sup> Institut Agama Islam Latifah Mubarakiyah Suryalaya, Tasikmalaya, Indonesia; [mohyusupsj@gmail.com](mailto:mohyusupsj@gmail.com)

<sup>3</sup> Universitas Islam Negeri Sunan Gunung Djati Bandung, Indonesia; [bambangamsularifin@uinsgd.ac.id](mailto:bambangamsularifin@uinsgd.ac.id)

---

### Keywords:

Learning Model,  
Project Based  
Learning,  
Cognitive Learning  
Outcomes.

---

### Abstract

The purpose of this study is to improve students' cognitive learning outcomes through the use of Project Based Learning. The study was conducted using Quasy Experimental research. The technique or data collection used in this study is a pretest, and posttest, In sampling using purposive sampling. The data analysis techniques used in this study are the normality test using the Shapiro-Wilk test, the t-test hypothesis testing using the Mann-Whitney test, and the N-gain test. The results in this study show that the application of the Project Based Learning learning model can improve the cognitive learning outcomes of students with an average post-test value of the experimental class of 0.76 greater than the control class with an average post-test value of 0.39. The hypothesis test results obtained a Significance value < a probability value of  $0.00 < 0.05$ . The conclusion in this study is that the application of the Project Based Learning learning model can improve the cognitive learning outcomes of students.

---

---

### Kata kunci:

Model Pembelajaran,  
Project Based Learning,  
Hasil Belajar Kognitif.

---

### Article history:

Received: 08-03-2023

Revised 12-04-2023

Accepted 03-06-2023

---

### Abstrak

Tujuan penelitian ini untuk meningkatkan hasil belajar kognitif siswa melalui penggunaan Project Based Learning. Penelitian dilakukan menggunakan penelitian Quasy Eksperiment. Teknik atau pengambilan data yang digunakan dalam penelitian ini adalah pretest, posttest, Dalam pengambilan sampelnya menggunakan purposive sampling. Teknik analisis data yang digunakan dalam penelitian ini adalah uji normalitas menggunakan uji Shapiro Wilk, pengujian hipotesis uji t dengan menggunakan uji mann-whitney dan uji N-gain. Hasil dalam penelitian ini menunjukkan bahwa penerapan model pembelajaran Project Based Learning dapat meningkatkan hasil belajar kognitif peserta didik dengan rata-rata nilai posttest kelas eksperimen sebesar 0,76 lebih besar daripada kelas kontrol dengan rata-rata nilai posttest sebesar 0,39. Hasil uji hipotesis diperoleh nilai Signifikansi < nilai probabilitas yaitu  $0,00 < 0,05$ . Kesimpulan dalam penelitian ini adalah penerapan model pembelajaran Project Based Learning dapat meningkatkan hasil belajar kognitif peserta didik.

---

Corresponding Author:

Rosijanah Arbie

Universitas Sam Ratulangi, Manado, Indonesia: [rosijaniharbie@unsrat.ac.id](mailto:rosijaniharbie@unsrat.ac.id)

---

## INTRODUCTION

The implication of the national education goal is the existence of Islamic Education subjects in public schools.<sup>1</sup> Problems regarding Islamic Religious Education Subjects (PAI) learning are very complex; the head of the sub-directorate of PAI in elementary schools of the Directorate of Islamic Education of the Ministry of Religious Affairs, Halfian Lubis, conveyed at least five problems faced by PAI teachers in schools.<sup>2</sup> Among these problems include the mastery of science that is still low. This is not very visible at the elementary/junior high/high school/vocational level because the depth of the material is not like in Madrasah.<sup>3</sup> Another problem is the classic reason that PAI subjects in public schools are only presented for three hours. This makes one of the obstacles or barriers in achieving optimal learning coupled with many students so that the evaluation is not optimal.<sup>4</sup> Furthermore, the phenomenon of PAI teachers' difficulties in managing learning in the classroom is due to the problem of teachers in determining a suitable learning model.<sup>5</sup> This difficulty is not entirely justified; teachers should ideally have mastered the types of models and methods used in PAI learning. The following fact is that lectures still dominate PAI learning in junior high schools; learning media is still conventional, makeshift, and does not involve technological developments.

Some research results mention that the difficulty for teachers in teaching PAI based on the 2013 curriculum is finding or determining a model that matches the Sanctify approach.<sup>6</sup> A scientific approach is an approach that emphasizes student activity independently in terms of finding problems, processing information, and communicating it; in other words, students are no longer listeners or no longer just listening to the teacher's explanation but must be able to learn independently.<sup>7</sup> The

---

<sup>1</sup> R Hayah, 'Character Education in Islamic Boarding School and the Implication to Students' Attitude and Critical Thinking Skills on Biodiversity Learning', *Journal of Physics: Conference Series*, 2017, <https://doi.org/10.1088/1742-6596/812/1/012101>.

<sup>2</sup> Hayah.

<sup>3</sup> Drajat Udin, 'Collaboration of Islamic Religious Education Teachers With Guidance And Counseling Teachers In Efforts to Internalize The Values of Islamic Religious Education In Madrasah Aliyah Sungai Gelam District Muaro Jambi', *Journal of Pancasila and Citizenship Education* 1, no. 2 (2021); Sutarman, 'The Religiosity and Character Values Education of Multilingual Program of Madrasah Mu'Allimaat Muhammadiyah Yogyakarta Indonesia of Industrial Revolution Era 4.0', *Journal of Critical Reviews*, 2020, <https://doi.org/10.31838/jcr.07.01.96>.

<sup>4</sup> Eric Hilgendorf, 'Islamic Education: History and Tendency', *Peabody Journal of Education* 78, no. 2 (2003): 63-75.

<sup>5</sup> Edi Prihadi et al., 'Islamic Religious Education Learning to Develop 4cs Through Blended Learning Method E-Poster Comment: Research at SMAN 27 Bandung City', *Journal of Sosial Science* 2, no. 5 (2021): 586-97; S Assa'idi, 'Religious Education Curriculum in Indonesian Islamic University in the Digital Age: Incepting Thematic Alquran of Fadlur Rahman', *Journal of Social Studies Education Research* 12, no. 3 (2021): 294-311.

<sup>6</sup> Widyatmike Gede Mulawarman, 'Overcoming Obstacles in Implementing 2013 Curriculum Policy.', *Cypriot Journal of Educational Sciences* 16, no. 3 (2021): 967-80; Lyn Parker, 'Religious Environmental Education? The New School Curriculum in Indonesia', *Environmental Education Research* 23, no. 9 (2017): 1249-72.

<sup>7</sup> Isti Gandana and Graham Parr, 'Professional Identity, Curriculum and Teaching Intercultural Communication: An Indonesian Case Study', *Language, Culture and Curriculum* 26, no. 3 (2013): 229-46.

results of research conducted by Mela Kardela<sup>8</sup> in 2018 concluded that among the difficulties of PAI teachers in implementing the 2013 curriculum were the difficulty of conducting assessments for attitudinal aspects and assessing assessments for oral tests, so assessment activities were not optimal. Another problem PAI teachers face is in preparing students who are ready to learn; there are still students who are indifferent to PAI learning. For this reason, teachers need to motivate students to pay more attention to learning PAI.<sup>9</sup>

Referring to the difficulties and problems of PAI teachers described above; it can be concluded that there is a phenomenon that PAI teachers still have difficulty in managing PAI learning, especially in choosing the appropriate model and test in evaluating PAI learning so that learning outcomes are not measurable.<sup>10</sup> With no intention of demeaning the role of PAI teachers in schools, this needs to be a common concern so that PAI learning improves from time to time. The impact is that students' cognitive learning outcomes have not met the Minimum Completeness Criteria (KKM). Based on that, the researcher needs to provide research described in this paper regarding improving students' cognitive learning outcomes in PAI subjects using the Project Based Learning learning model. That project-based learning has the potential to train to improve student activity and learning outcomes, mainly student cognitive learning outcomes.

Project Based Learning (PjBL) is a project-based learning model.<sup>11</sup> Through the PjBL learning model, a project will be designed from which a product will be produced.<sup>12</sup> So that students have the space to pour out creative and innovative ideas by trying new things through the project work they do. For this reason, students must be more active, and the teacher acts as a facilitator. Project-based learning is active learning by involving students independently with the criteria that the knowledge will also increase students' thinking towards metacognitive such as critical thinking about the project to be done through problems found by students.<sup>13</sup> This project-based

---

<sup>8</sup> Mela Kardela, 'Kesulitan Guru Pendidikan Agama Islam Dalam Menerapkan Kurikulum 2013 Di SMA Mujahidin Pontianak Tahun 2018/2019', *Tarbawi Khatulistiwa* 6, no. 1 (2019): 15-24.

<sup>9</sup> Ronald Silalahi and Untung Yuwono, 'The Sustainability of Pancasila in Indonesian Education System', *Research in Social Sciences and Technology* 3, no. 2 (2018): 58-78.

<sup>10</sup> Dian Dian et al., 'Optimizing Islamic Religious Colleges In Facing The Era of Globalization', *Tafkir: Interdisciplinary Journal of Islamic Education* 4, no. 1 (2023): 58-77.

<sup>11</sup> W Emagri, 'Design of Edupark Physics Book with Project Based Learning Based on Ngarai Sianok National Geopark, Indonesia', *Journal of Physics: Conference Series*, 2020, <https://doi.org/10.1088/1742-6596/1481/1/012100>.

<sup>12</sup> Intan Safiah et al., 'Design and Development of Seamless Learning to Improving Learning Outcome of Islamic Economic Course: A Case Study in Indonesia', *Journal of E-Learning and Knowledge Society* 16, no. 3 (2020): 60-67; Sa'dullah Assa'idi, 'Religious Education Curriculum in Indonesian Islamic University in the Digital Age: Incepting Thematic Alquran of Fadlur Rahman.', *Journal of Social Studies Education Research* 12, no. 3 (2021): 294-311.

<sup>13</sup> Dayna Laur, *Authentic Learning Experiences: A Real-World Approach to Project-Based Learning* (Routledge, 2013).

learning is authentic, so indirectly, this learning will involve learners in constructive investigation.<sup>14</sup>

In connection with the application of the Project-based learning model, studies on the use of Project-based learning models as an effort to improve learning outcomes, including research conducted by Novitasari and Suhartono<sup>15</sup> which states that the Project-based learning model has a significant effect on the learning outcomes of fourth-grade students at SDN Tandes Kidul Surabaya. Furthermore, in their research entitled, "The Effect of Project-based Learning Integrated with Stem on Science Literacy, Creativity and Student Learning Outcomes". Lutfi and Aziz<sup>16</sup> study stated that there was a more significant effect on learning outcomes in the experimental class than the control class. Research conducted by Insyasiska and friends<sup>17</sup> entitled "The effect of project-based learning on learning motivation, creativity, critical thinking skills, and cognitive abilities of students in biology learning". This study shows that based on LSD further test, project-based learning can affect student learning motivation higher by 14%, student creativity increases by 31.1%, critical thinking skills increase by 34% and through contextual project learning, students' cognitive abilities also increase by 28.9% than learning given without a project. Referring to the results of previous research that has been stated above and about the research to be carried out by researchers, it can be concluded that previous researchers have never done the focus or theme of research to be carried out by researchers.

The novelty of this research can be seen from the fundamental difference from the previous analysis. Namely, the variables used in this study are more focused on the cognitive learning outcomes of seventh-grade students in PAIBP material *Al-Khulafa Ar-Rasyidin* as the successor of the prophet; later, it will be tested whether the application of the Project-based learning model can improve the cognitive learning outcomes of students.

This study aims to improve students' cognitive learning outcomes in PAIBP subjects by using the Project Based Learning learning model and the specific purpose of determining students' initial ability and final ability with Project Based Learning treatment and comparing it with conventional models. This research is significant to provide insight and renewal for PAI teachers in applying active and fun learning models through project-based learning models to students. This study's results

---

<sup>14</sup> Andewi Suhartini, Hasan Basri, and Asep Nursobah, 'The Use of Web 2.0 in Islamic Religious Education Learning in Higher Education', in *5th Asian Education Symposium 2020 (AES 2020)* (Atlantis Press, 2021), 286-90.

<sup>15</sup> Indah Novitasari and Suhartono Suhartono, 'Pengaruh Model Pembelajaran Project Based Learning (Pbl), Model Konvensional Dan Perhatian Orang Tua Terhadap Hasil Belajar Peserta Didik Kelas Iv Sdn Tandes Kidul I/110 Surabaya', *Jurnal Pendidikan Dasar* 12, no. 01 (2021): 103-9.

<sup>16</sup> Ismail Lutfi and A Asmawati Azis, 'Pengaruh Project Based Learning Terintegrasi Stem Pengaruh Project Based Learning Terintegrasi Stem Terhadap Literasi Sains, Kreativitas Dan Hasil Belajar Peserta Didik', in *Seminar Nasional Biologi Dan Pembelajarannya*, 2018, 189-94.

<sup>17</sup> Dewi Insyasiska, Siti Zubaidah, and Herawati Susilo, 'Pengaruh Project Based Learning Terhadap Motivasi Belajar, Kreativitas, Kemampuan Berpikir Kritis, Dan Kemampuan Kognitif Siswa Pada Pembelajaran Biologi', *Jurnal Pendidikan Biologi* 7, no. 1 (2017): 9-21.

reinforce PAI teachers' use of the PJBL model as a solution to the problems of PAI teachers' difficulties described in the problem paragraph above.

## METHOD

The research used in this study is Experimental Research with a Quasy Experiment design with the design form Nonequivalent Control Group Design. According to Sugiyono,<sup>18</sup> Quasy Experiment is a development of a true experiment, which is difficult to implement. The Quasy Experiment method does not have groups taken randomly, so the sampling in this study used purposive sampling with certain sample considerations. the sampling in this study was chosen directly by the PAIBP teacher at SMPN 1 Katapang. In this research plan, there are two groups, namely the experimental group and the control group. Furthermore, to obtain data on the two groups, a pretest and posttest were given. Pretest is used to see the initial ability of students and Posttest is used to see the increase in cognitive learning outcomes obtained by students after being given treatment or treatment. This research design is as follows;

Table 1. Research Design

<i>Group</i>	<i>Pretest</i>	<i>Treatment</i>	<i>Posttest</i>
Experiment	O1	X1	O2
Control	O3	X2	O4

Description:

O1 : Pretest given to the experimental class

O2 : Posttest given to the experimental class

O3 : Pretest given to the control class

O4 : Posttest given to the control class

X1 : Treatment or treatment in the Experiment class by using the Project Based learning Model

X2 : Treatment or treatment in the control class using the Lecture or Conventional Learning Model

In this study, the type of instrument measurement used pretests and posttests, the pretest and posttest instruments were tested with validity tests and reliability tests. Furthermore, the normality test, homogeneity test (if the data is normally distributed), and hypothesis testing are carried out.<sup>19</sup> Hypothesis Ho there is no difference in the average cognitive learning outcomes between experimental class students using the Project Based Learning model and control class students using the lecture or Conventional model. H1 There is an average difference in cognitive learning outcomes

---

<sup>18</sup> Sugiyono Sugiyono, 'Metode Penelitian Kuantitatif Dan Kualitatif Dan R&D' (Alfabeta Bandung, 2010).

<sup>19</sup> John Creswell, *Research Design: Qualitative, Quantitative, Mixed Methods Approaches* (University of Nebraska-Lincoln, 2016).

between experimental class students using the Project Based Learning model and control class students using the Lecture or Conventional model.

The validity test of the pretest and post-test instruments is the first activity in carrying out this research, in the validity calculation using the Pearson Bivariate Correlate, namely by comparing the Significance value with the probability value. validity test using 25 questions on the pretest and posttest resulted in 25 Questions declared valid. Decision-making based on the Significance value is smaller than the probability value, namely  $0.021 < 0.05$ . Furthermore, the Reliability Test was carried out after the question instrument was valid using the Kendals'tau Bivariate Correlate with decision-making based on a Significance value smaller than the probability value, namely  $0.004 < 0.05$ . Then the pretest and posttest question instruments are declared reliable. Then the pretest and posttest instruments in this study can continue to be used for research. Then in the next stage of research at SMPN 1 Katapang with experimental classes and control classes, after collecting all the data, the researcher conducted a normality test through the Shapiro Wilk test, because the respondents were less than 50.<sup>20</sup>

## RESULT AND DISCUSSION

### RESULT

The cognitive learning outcomes of seventh-grade students were obtained after conducting pretests before learning in experimental and control classes, after which the researchers carried out the provision of treatment or action by carrying out learning in experimental classes with the Project Based Learning learning model, and lecture or conventional learning models in control classes. as usual learning activities begin with opening activities, core activities, and final activities. students listen and ask questions about learning material and evaluate and summarize at the end of the lesson and provide posttest LKPD at the end of the lesson in the hope of seeing learning outcomes.

Experimental pretest and posttest data were collected through pretest and posttest initial tests. can be seen in the table below;

Table 2. Pretest, Posttest Results of Experiment class students

Learner Code	Cognitive Learning Outcomes	
	Pretest	Posttest
E-01	44	100
E-02	80	100
E-03	16	96
E-04	32	100
E-05	92	92
E-06	32	100

<sup>20</sup> Fildayanti Fildayanti, Tuti Dharmawati, and Linda Ayu Rizka Putri, 'Pengaruh Pemberian Rendam Kaki Dengan Air Hangat Campuran Garam Terhadap Penurunan Tekanan Darah Pada Pasien Hipertensi Di Desa Lamboo Wilayah Kerja Puskesmas Moramo', *Jurnal Ilmiah Karya Kesehatan* 1, no. 1 (2020): 70-75.

<b>E-07</b>	72	88
<b>E-08</b>	40	100
<b>E-09</b>	36	88
<b>E-10</b>	32	92
<b>E-11</b>	56	84
<b>E-12</b>	28	92
<b>E-13</b>	88	88
<b>E-14</b>	32	100

The information in the table above explains the information from the pretest and posttest of the experimental class which shows that students have not learned the material of *Al-Khulafa ar-rasyidin* as the Successor of the Prophet SAW so they get results below the average KKM. After being given learning by using the Project Based Learning Model it turns out to provide an increase in the posttest results of students. While the cognitive learning outcomes of students in the control class are as follows;

Table 3. Pretest, Posttest Results of Control class students

<b>Learner Code</b>	<b>Cognitive Learning Outcomes</b>	
	Pretest	Posttest
<b>K-01</b>	72	72
<b>K-02</b>	40	76
<b>K-03</b>	12	68
<b>K-04</b>	64	60
<b>K-05</b>	20	28
<b>K-06</b>	84	92
<b>K-07</b>	28	40
<b>K-08</b>	68	72
<b>K-09</b>	40	32
<b>K-10</b>	40	32
<b>K-11</b>	60	60
<b>K-12</b>	68	80
<b>K-13</b>	68	76
<b>K-14</b>	76	80

The information in the table above explains the information from the pretest and posttest of the control class which really shows that students have not learned the material of *Al-Khulafa Ar-Rasyidin* as the successor of the Prophet SAW so they get results below the average KKM. After being given a lesson through the Lecture Learning Model or conventional it did not provide a significant increase in the posttest results of students.

Based on the number of respondents, namely 28 respondents, the number of respondents in this study was less than 50 respondents, so the normality test used was the Shapiro Wilk test;

Table 4. Shapiro Wilk Normality Test Results

Tests of Normality							
Kelompok	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk			
	Statistic	df	Sig.	Statistic	df	Sig.	
Pretest	Eksperimen	.217	14	.074	.871	14	.043
	Konvensional	.196	14	.151	.919	14	.212
Posttest	Eksperimen	.266	14	.008	.837	14	.015
	Konvensional	.185	14	.200 <sup>*</sup>	.891	14	.083

\*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Based on the data obtained above, the data obtained is not normally distributed, so the next test is to test the hypothesis using a non-parametric test, namely the Mann-Whitney test;

Table 5. Mann-Whitney Test Results

Test Statistics <sup>a</sup>	
	Posttest
Mann-Whitney U	5.500
Wilcoxon W	110.500
Z	-4.282
Asymp. Sig. (2-tailed)	.000
Exact Sig. [2*(1-tailed Sig.)]	.000 <sup>b</sup>

a. Grouping Variable: Kelompok

b. Not corrected for ties.

Based on the value of Asymp. Sig (2-tailed) 0.000 < 0.05, the Significance value is smaller than the significance level, so H1 is accepted, meaning that there is a significant average difference in cognitive learning outcomes between experimental class students using the Project Based Learning model and control class students using the Conventional model.

Furthermore, to see, the average difference in cognitive learning outcomes between experimental class students using the Project Based Learning model and control class students using the Conventional model through the N-Gain Test or comparing the Pre-Test and Post-Test scores;

Table 6. N-Gain Test Data Score

	Kelompok	N	Mean	Std. Deviation	Std. Error Mean
NGain	Eksperimen	14	.7674	.35325	.09441
	Konvensional	14	.1816	.26101	.06976

Based on the mean N-Gain value from Table 6. for the Experiment class of 0.7674 or 0.77 so that is based on the category of interpretation of the effectiveness of the N-Gain value. if the result is greater than 0.7 it can be concluded that the use of the Project-based learning model in the Experiment class is high or very effective for improving students' cognitive learning outcomes.

Furthermore, the mean N-gain value for the control class is 0.1816 or 0.18 so based on the category of interpretation of the effectiveness of the N-Gain value if the result is smaller than 0.3 it can be concluded that the use of the lecture method in the control class is low or less effective to improve the cognitive learning outcomes of students.

## DISCUSSION

This research was conducted at SMPN 1 Katapang, Bandung Regency in PAIBP subjects, from the results of the data analysis above, it is known that there is a significant increase in students' cognitive learning outcomes by 77%, the increase is the impact of using the Project-based learning model used in learning.<sup>21</sup> As is known, of course, the Project-based learning model has advantages over other learning models. Among them; 1) Increase learners' motivation to learn, encourage their ability to do important work and they need to be appreciated, 2) Improve problem-solving skills, 3) Make learners more active and successful in solving complex problems, 4) Increase collaboration, 5) Encourage learners to develop and practice communication skills, and 6) Improve learners' skills in managing resources.<sup>22</sup>

The advantage of the Project-based learning model, it increased the cognitive learning outcomes of students significantly in PAIBP subjects. Whereas in the control class which experienced an increase in students' cognitive learning outcomes of only 18%, this was evident because in the control class, students only listened and occasionally asked questions about the material presented by the teacher which made

<sup>21</sup> Fahmi Siti Fatimah et al., 'Learning Fiqh Based on the TAPPS (Think Aloud Pair Problem Solving) Method in Improving Student Learning Outcomes', *At-Tadzkir: Islamic Education Journal* 2, no. 1 (21 January 2023): 1-15; Nurul Komariah and Ishmatun Nihayah, 'Improving The Personality Character of Students Through Learning Islamic Religious Education', *At-Tadzkir: Islamic Education Journal* 2, no. 1 (27 March 2023): 65-77, <https://doi.org/10.59373/attadzkir.v2i1.15>; Rifngatus Saadah and Hasyim Asy'ari, 'Manajemen Sekolah Berbasis Pesantren Dalam Membentuk Karakter Peserta Didik', *Kharisma: Jurnal Administrasi Dan Manajemen Pendidikan* 1, no. 1 (30 September 2022): 1-11, <https://doi.org/10.59373/kharisma.v1i1.1>.

<sup>22</sup> M Aditya Firdaus, *Model Model Pembelajaran PAI*, 1st ed. (Bandung: Rajawali Press, 2022).

students passive.<sup>23</sup> The weaknesses of this conventional model or lecture model that researchers believe in increasing low cognitive learning outcomes in the control class are in line with the theory from Helmiati which says that the weaknesses of conventional learning models or lectures are as follows: 1) Monotonous and boring, 2) Information is only one way, namely from teacher to student, 3) Students become inactive because learning is dominated by the teacher, 4) Feedback is relatively low, 5) Less attached to students' memories, 6) Does not develop student creativity, 7) Making students only as learning objects, 8) Patronizing and tiring, 9) Does not stimulate students to read, 10) The material that students can master as a result of lectures will be limited to what the teacher controls.

Increasing students' cognitive learning outcomes by using the Project Based Learning learning model was also carried out by Susanto, the results of the T-test calculation using the SPSS Version 20 application, got a sig. (2-tailed) = 0.00 which means less than 0.05, it can be said that  $H_a$  is accepted, which means that there is a difference in the average value of the experimental class (X AK) with the control class (X PM) on student learning outcomes with a mean difference of 88.27 for the experimental class while 77.58 for the control class proving that the PjBL (Project Based Learning) learning model can affect student learning outcomes in Class X PAI subjects at SMK PGRI 4 Bandar Lampung.<sup>24</sup>

Project Based Learning is a model that is considered suitable for PAI learning as well as supporting the development of 21<sup>st</sup>-century competencies. This PjBL model chooses advantages such as increasing student learning motivation and student learning outcomes, demanding collaboration, providing opportunities for students to utilize various learning resources, giving students experience in learning and practice in organizing projects, and directly implementing them in the real world.<sup>25</sup> However, the disadvantages of this model are that it takes a long time, and requires adequate facilities and costs for PAI learning.<sup>26</sup> In relation to its implementation, this PjBL model is able to improve student learning outcomes in PAI subjects. As the results of his research Wahyuni et al that before using the Project Based Learning (PjBL) learning

---

<sup>23</sup> J L Fua, 'Strategy of Islamic Education in Developing Character Building of Environmental Students in Indonesia', *IOP Conference Series: Earth and Environmental Science*, 2018, <https://doi.org/10.1088/1755-1315/175/1/012149>.

<sup>24</sup> S Susanto, 'Pengaruh Model Project Based Learning (Pjbl) Terhadap Hasil Belajar Siswa Pada Mata Pelajaran PAI Kelas X Di SMK PGRI 4 Bandar Lampung' (UIN Raden Intan Lampung, 2020).

<sup>25</sup> Rusdi Anshori Harahap, Zaini Dahlan, and Usiono Usiono, 'The Role of The IRE Teacher in Shaping The Attitude of Student's Religious Moderation', *Nazhruna: Jurnal Pendidikan Islam* 5, no. 2 (26 May 2022): 618–33, <https://doi.org/10.31538/nzh.v5i2.2194>; Claire-Marie Hefner, 'Models of Achievement: Muslim Girls and Religious Authority in a Modernist Islamic Boarding School in Indonesia', *Asian Studies Review* 40, no. 4 (1 October 2016): 564–82, <https://doi.org/10.1080/10357823.2016.1229266>; Antono Damayanto et al., 'Management Challenges for Academic Improvement in Higher Education in The Digital Era', *Nazhruna: Jurnal Pendidikan Islam* 5, no. 2 (23 May 2022): 572–92, <https://doi.org/10.31538/nzh.v5i2.2131>; Poetri Leharia Pakpahan and Umi Habibah, 'Manajemen Program Pengembangan Kurikulum PAI Dan Budi Pekerti Dalam Pembentukan Karakter Religius Siswa: Management of IRE Curriculum Development Program and Character in Forming Student's Religious Character', *Tafkir: Interdisciplinary Journal of Islamic Education* 2, no. 1 (10 January 2021): 1–20, <https://doi.org/10.31538/tijie.v2i1.19>.

<sup>26</sup> Abdul Majid, *Strategi Pembelajaran* (Bandung: Remaja Rosdakarya, 2013).

model, the learning outcomes of students at SMP Negeri 7 Tangerang City were only 60% who managed to reach the Minimum Learning Completeness (KBM), but after using the Project Based Learning (PjBL) learning model, the learning outcomes of students increased to 85% who managed to reach the Minimum Learning Completeness (KBM).<sup>27</sup>

The learning model presented above is the model most often recommended by experts for PAI learning in the 2013 curriculum. As the curriculum changes to an independent curriculum, the learning model must also be adapted to the demands of the curriculum and the targeted learning outcomes.

## CONCLUSION

From the results of the research that has been done, it can be concluded that the use of Project-based learning models can improve the cognitive learning outcomes of students in PAIBP material *Al-Khulafa Ar-Rasyidin* as the successor to the prophet. The increase in students' cognitive learning outcomes is significant, as evidenced by a high rise of 77%. While learning by using a lecture or conventional learning model experienced a low increase in students' cognitive learning outcomes of 18%. Each model has advantages and disadvantages, so teachers need to look at the advantages and disadvantages of the model before using it in learning.

The results of this study confirm previous research related to efforts to improve student learning outcomes using Project-based learning models and strengthen the Project-based learning model as a relevant model to enhance cognitive learning outcomes, especially in Islamic Religious Education material Baswed Project *Al-Khulafa Ar-Rasyidin* as the successor to the prophet. The results of this study are limited to the elementary school level and on one material *Al-Khulafa Ar-Rasyidin* as the successor of the prophet. So, this research needs to be developed at a higher level and with a more comprehensive mat to find the broader result serial.

Based on the above conclusions and the conditions during the research, the researcher can provide suggestions for teachers of Islamic Religious Education subjects that the Project-based learning model is one of the models chosen by the government in implementing the 2013 and independent curricula. Project-based learning models can be developed on other themes and grade levels by adjusting the basic competencies.

## REFERENCES

Assa'idi, S. 'Religious Education Curriculum in Indonesian Islamic University in the Digital Age: Incepting Thematic Alquran of Fadlur Rahman'. *Journal of Social Studies Education Research* 12, no. 3 (2021): 294–311.

---

<sup>27</sup> Eka Wahyuni and Fitriana Fitriana, 'Implementasi Model Pembelajaran Project Based Learning (PjBL) Dalam Meningkatkan Hasil Belajar Peserta Didik Pada Mata Pelajaran Pendidikan Agama Islam SMP Negeri 7 Kota Tangerang', *Tadarus Tarbawy: Jurnal Kajian Islam Dan Pendidikan* 3, no. 1 (2021).

- Assa'idi, Sa'dullah. 'Religious Education Curriculum in Indonesian Islamic University in the Digital Age: Incepting Thematic Alquran of Fadlur Rahman.' *Journal of Social Studies Education Research* 12, no. 3 (2021): 294–311.
- Creswell, John. *Research Design: Qualitative, Quantitative, Mixed Methods Approaches*. University of Nebraska-Lincoln, 2016.
- Damayanto, Antono, B. M. A. S. Anaconda Bangkara, Ali Zaenal Abidin, Ani Heryani, and Irma Rachmawati Maruf. 'Management Challenges for Academic Improvement in Higher Education in The Digital Era'. *Nazhruna: Jurnal Pendidikan Islam* 5, no. 2 (23 May 2022): 572–92. <https://doi.org/10.31538/nzh.v5i2.2131>.
- Dian, Dian, Aneu Nandya Indayanti, Asep Irfan Fanani, and Elis Nurhayati. 'Optimizing Islamic Religious Colleges In Facing The Era of Globalization'. *Tafkir: Interdisciplinary Journal of Islamic Education* 4, no. 1 (2023): 58–77.
- Emafri, W. 'Design of Edupark Physics Book with Project Based Learning Based on Ngarai Sianok National Geopark, Indonesia'. *Journal of Physics: Conference Series*, 2020. <https://doi.org/10.1088/1742-6596/1481/1/012100>.
- Fatimah, Fahmi Siti, Hasyim Asy'ari, Anis Sandria, and Juli Amaliya Nasucha. 'Learning Fiqh Based on the TAPPS (Think Aloud Pair Problem Solving) Method in Improving Student Learning Outcomes'. *At-Tadzkir: Islamic Education Journal* 2, no. 1 (21 January 2023): 1–15.
- Fildayanti, Fildayanti, Tuti Dharmawati, and Linda Ayu Rizka Putri. 'Pengaruh Pemberian Rendam Kaki Dengan Air Hangat Campuran Garam Terhadap Penurunan Tekanan Darah Pada Pasien Hipertensi Di Desa Lamboo Wilayah Kerja Puskesmas Moramo'. *Jurnal Ilmiah Karya Kesehatan* 1, no. 1 (2020): 70–75.
- Firdaus, M Aditya. *Model Model Pembelajaran PAI*. 1st ed. Bandung: Rajawali Press, 2022.
- Fua, J L. 'Strategy of Islamic Education in Developing Character Building of Environmental Students in Indonesia'. *IOP Conference Series: Earth and Environmental Science*, 2018. <https://doi.org/10.1088/1755-1315/175/1/012149>.
- Gandana, Isti, and Graham Parr. 'Professional Identity, Curriculum and Teaching Intercultural Communication: An Indonesian Case Study'. *Language, Culture and Curriculum* 26, no. 3 (2013): 229–46.
- Harahap, Rusdi Anshori, Zaini Dahlan, and Usiono Usiono. 'The Role of The IRE Teacher in Shaping The Attitude of Student's Religious Moderation'. *Nazhruna: Jurnal Pendidikan Islam* 5, no. 2 (26 May 2022): 618–33. <https://doi.org/10.31538/nzh.v5i2.2194>.
- Hayah, R. 'Character Education in Islamic Boarding School and the Implication to Students' Attitude and Critical Thinking Skills on Biodiversity Learning'. *Journal of Physics: Conference Series*, 2017. <https://doi.org/10.1088/1742-6596/812/1/012101>.

- Hefner, Claire-Marie. 'Models of Achievement: Muslim Girls and Religious Authority in a Modernist Islamic Boarding School in Indonesia'. *Asian Studies Review* 40, no. 4 (1 October 2016): 564–82. <https://doi.org/10.1080/10357823.2016.1229266>.
- Hilgendorf, Eric. 'Islamic Education: History and Tendency'. *Peabody Journal of Education* 78, no. 2 (2003): 63–75.
- Insyasiska, Dewi, Siti Zubaidah, and Herawati Susilo. 'Pengaruh Project Based Learning Terhadap Motivasi Belajar, Kreativitas, Kemampuan Berpikir Kritis, Dan Kemampuan Kognitif Siswa Pada Pembelajaran Biologi'. *Jurnal Pendidikan Biologi* 7, no. 1 (2017): 9–21.
- Kardela, Mela. 'Kesulitan Guru Pendidikan Agama Islam Dalam Menerapkan Kurikulum 2013 Di SMA Mujahidin Pontianak Tahun 2018/2019'. *Tarbawi Khatulistiwa* 6, no. 1 (2019): 15–24.
- Komariah, Nurul, and Ishmatun Nihayah. 'Improving The Personality Character of Students Through Learning Islamic Religious Education'. *At-Tadzkir: Islamic Education Journal* 2, no. 1 (27 March 2023): 65–77. <https://doi.org/10.59373/attadzkir.v2i1.15>.
- Laur, Dayna. *Authentic Learning Experiences: A Real-World Approach to Project-Based Learning*. Routledge, 2013.
- Lutfi, Ismail, and A Asmawati Azis. 'Pengaruh Project Based Learning Terintegrasi Stem Pengaruh Project Based Learning Terintegrasi Stem Terhadap Literasi Sains, Kreativitas Dan Hasil Belajar Peserta Didik'. In *Seminar Nasional Biologi Dan Pembelajarannya*, 189–94, 2018.
- Majid, Abdul. *Strategi Pembelajaran*. Bandung: Remaja Rosdakarya, 2013.
- Mulawarman, Widyatmike Gede. 'Overcoming Obstacles in Implementing 2013 Curriculum Policy.' *Cypriot Journal of Educational Sciences* 16, no. 3 (2021): 967–80.
- Novitasari, Indah, and Suhartono Suhartono. 'Pengaruh Model Pembelajaran Project Based Learning (Pbl), Model Konvensional Dan Perhatian Orang Tua Terhadap Hasil Belajar Peserta Didik Kelas Iv Sdn Tandes Kidul I/110 Surabaya'. *Jurnal Pendidikan Dasar* 12, no. 01 (2021): 103–9.
- Pakpahan, Poetri Leharia, and Umi Habibah. 'Manajemen Program Pengembangan Kurikulum PAI Dan Budi Pekerti Dalam Pembentukan Karakter Religius Siswa: Management of IRE Curriculum Development Program and Character in Forming Student's Religious Character'. *Tafkir: Interdisciplinary Journal of Islamic Education* 2, no. 1 (10 January 2021): 1–20. <https://doi.org/10.31538/tijie.v2i1.19>.
- Parker, Lyn. 'Religious Environmental Education? The New School Curriculum in Indonesia'. *Environmental Education Research* 23, no. 9 (2017): 1249–72.
- Prihadi, Edi, Supiana Supiana, Aan Hasanah, and Asep Nursobah. 'Islamic Religious Education Learning to Develop 4cs Through Blended Learning Method E-

- Poster Comment: Research at SMAN 27 Bandung City'. *Journal of Sosial Science* 2, no. 5 (2021): 586–97.
- Saadah, Rifngatus, and Hasyim Asy'ari. 'Manajemen Sekolah Berbasis Pesantren Dalam Membentuk Karakter Peserta Didik'. *Kharisma: Jurnal Administrasi Dan Manajemen Pendidikan* 1, no. 1 (30 September 2022): 1–11. <https://doi.org/10.59373/kharisma.v1i1.1>.
- Safiah, Intan, I Nyoman Sudhana Degeng, Punaji Setyosari, and Saida Ulfa. 'Design and Development of Seamless Learning to Improving Learning Outcome of Islamic Economic Course: A Case Study in Indonesia'. *Journal of E-Learning and Knowledge Society* 16, no. 3 (2020): 60–67.
- Silalahi, Ronald, and Untung Yuwono. 'The Sustainability of Pancasila in Indonesian Education System'. *Research in Social Sciences and Technology* 3, no. 2 (2018): 58–78.
- Sugiyono, Sugiyono. 'Metode Penelitian Kuantitatif Dan Kualitatif Dan R&D'. Alfabeta Bandung, 2010.
- Suhartini, Andewi, Hasan Basri, and Asep Nursobah. 'The Use of Web 2.0 in Islamic Religious Education Learning in Higher Education'. In *5th Asian Education Symposium 2020 (AES 2020)*, 286–90. Atlantis Press, 2021.
- Susanto, S. 'Pengaruh Model Project Based Learning (Pjbl) Terhadap Hasil Belajar Siswa Pada Mata Pelajaran PAI Kelas X Di SMK PGRI 4 Bandar Lampung'. UIN Raden Intan Lampung, 2020.
- Sutarman. 'The Religiosity and Character Values Education of Multilingual Program of Madrasah Mu'Allimaat Muhammadiyah Yogyakarta Indonesia of Industrial Revolution Era 4.0'. *Journal of Critical Reviews*, 2020. <https://doi.org/10.31838/jcr.07.01.96>.
- Udin, Drajat. 'Collaboration of Islamic Religious Education Teachers With Guidance And Counseling Teachers In Efforts to Internalize The Values of Islamic Religious Education In Madrasah Aliyah Sungai Gelam District Muaro Jambi'. *Journal of Pancasila and Citizenship Education* 1, no. 2 (2021).
- Wahyuni, Eka, and Fitriana Fitriana. 'Implementasi Model Pembelajaran Project Based Learning (PjBL) Dalam Meningkatkan Hasil Belajar Peserta Didik Pada Mata Pelajaran Pendidikan Agama Islam SMP Negeri 7 Kota Tangerang'. *Tadarus Tarbawy: Jurnal Kajian Islam Dan Pendidikan* 3, no. 1 (2021).