

The Impact of the Picture and Picture Learning Model on Student Activity and Social Studies Outcomes (A Case Study of 4th Grade Students in Gowa District)

Basmala ^{1*}, Kaharuddin ², Suardi ³

^{1, 2, 3} Universitas Muhammadiyah Makassar, Indonesia

* basmalabasmala307@gmail.com

Abstract

This study examines the impact of the Picture and Picture learning model on student engagement and academic performance in Social Studies among Grade IV students at SD Inpres Paccinongan, Gowa Regency. Low student engagement in the learning process and suboptimal academic performance are key issues faced in primary education. This study used a quasi-experimental design with a Nonequivalent Control Group methodology. The study population consisted of Grade IV students from two classes, with a total sample of 48 students selected using random sampling techniques. Data were collected through observations and tests, then analyzed using descriptive and inferential statistical techniques. The results indicated that the Picture and Picture learning model had a significant positive effect on student engagement and academic performance. The significance values for student activity ($p = 0.040$) and learning outcomes ($p = 0.016$) were both below the standard alpha level of 0.05, indicating the effectiveness of this model in enhancing student engagement and their academic results. These findings provide evidence that the application of a visual-based learning model, such as Picture and Picture, can be an effective solution to address low student engagement and learning outcomes in Social Studies education at the primary school level. The adoption of this learning paradigm is recommended to be expanded in Social Studies education at primary schools to improve the overall quality of education and academic performance of students.

Keywords : *Learning Model; Picture and Picture; Student Activity; Learning Outcome*

Introduction

The strategies that promote active engagement in recognizing social issues and coming up with solutions, social studies instruction in elementary schools exposes students to environmental concepts and community life. This cultivates awareness and a dedication to social and humanitarian values as a means of communication in society. Social studies learning in elementary schools must pay attention to students' way of thinking from concrete to abstract (Arini et al., 2021). Elementary school children aged between 6-12 years have the character that their social life is strengthened in addition to their abilities in terms of cooperation as well as in terms of competition and peer group life, they are becoming more self-aware, apart from having certain feelings of desire, certain interests are also growing, their thinking abilities are still at the perceptual and dependent level. to adults is decreasing and requiring less adult protection (Salma et al., 2023).

Internal variables, such as the belief that social studies content is excessively complex and difficult to grasp, can be linked to students' subpar social studies learning. Furthermore, the problem is made worse by outside variables such as a lack of parental guidance in education due to both parents' jobs and a lack of educational resources. This suggests that parents are not supporting their children's educational endeavors. The family support has a major influence on students' academic achievement, especially in courses like social studies that students find difficult. Developing a range of abilities, attitudes, and skills is a protracted process that calls for adult supervision (Prihatiningsih & Setyaningtyas, 2018).

Based on the interviews to teacher conducted at SD Inpres Paccinongan in Gowa Regency, the traditional lecture technique is the most widely employed teaching strategy. Nevertheless, depending on the subject matter being taught, it occasionally also uses the discussion technique. Pupils will find learning that uses the lecture style boring. They can only comprehend what the teacher is saying, kids will become less engaged. This is consistent with research which found that using lectures and other non-interactive teaching strategies can lower students' motivation to study and produce poor learning outcomes (Riyono & Retnoningsih, 2015). Using various techniques, such as discussions and teamwork, can enhance students' active engagement in the learning process.

Students' capacity to think critically and evaluate information is greatly impacted by inadequate analytical training and less participatory learning procedures, which also subtly make them reluctant to look for knowledge on their own (Tarigan, 2020). This type of passive learning has a detrimental effect on both enhanced learning outcomes and student participation. Based on the data from the Program for International Student Assessment (PISA), which shows that Indonesian students' social and academic competencies have remained remarkably low from the first survey in 2000 to 2018, this makes the country's educational situation worse (Syawaluddin et al., 2020). Students' critical thinking abilities are hampered by non-interactive learning, which also lowers motivation and learning results. Students around the world fall behind when they receive an education that does not encourage active engagement in the teaching and learning process. Therefore, using the Picture and Picture learning paradigm is a suitable way to deal with the difficulties in teaching social studies at the elementary school level.

This learning paradigm tackles the problem of passive learning by promoting active student participation. Improving student engagement and learning results necessitates a creative and adaptable response to contemporary advancements. The utilization of interactive methods, such as visual media, in education has been shown to enhance student motivation and comprehension, particularly in social studies and civic education. Consequently, the Picture and Picture approach, which entails the sequential use of images, can stimulate active student engagement and foster their critical thinking skills. Students in elementary school can benefit from the Picture and Picture learning paradigm, which helps improve teacher-student relationships and boost engagement in learning activities. One cooperative learning paradigm that prioritizes learning groups is the image and picture learning model.

The learning tactics for pupils to avoid boredom with social studies subjects is the cooperative learning model that uses pictures and pictures (Pratiwi & Aslam, 2021). Through the use of cards or picture stories, the Picture and Picture learning methodology gives pupils examples of pictures that the teacher has created. Each group is required to share work and have discussions during the session in order to clarify each of the topics shown in the photographs. The objective of the Picture and Picture type cooperative learning model is to

increase learning motivation and critical thinking by having student's sort or pair these pictures into a logical sequence that helps them think critically and logically. The Picture and Picture cooperative learning model will then increase learning motivation and critical thinking (Gustiana, 2023). The Picture and Picture learning model is a learning model that positions students at the center of the learning process and prepares them for real life by exposing them to real life problems. This is educational approach based on imagination, planning, and fiction, which places students at the center and brings real-life situations into the classroom.

The effective method for overcoming student ennui in social studies classes is the Picture and Picture cooperative learning concept. This model includes teacher-prepared graphics in the form of cards and illustrated narratives. Each student group must discuss and divide assignments in order to communicate the information pertaining to the photographs during the learning process. Using this approach increases students' active participation in the learning process. The efficient way to solve current issues with raising student engagement and learning outcomes is to implement the Picture and Picture learning approach. The studies demonstrate that Picture + Picture can enhance learning outcome utilizing the Picture and Picture paradigm to increase social studies learning activities (Maulidasari & Novianti, 2022). Picture and Picture enhance's the capacity for creative thought (Khasanah et al., 2022). Students are more engaged when they see pictures (Syarifuddin, 2019). Students' social studies learning results can be enhanced by pictures (Dewi & Wardani, 2020). Images can boost students' enthusiasm to learn, stimulate their thoughts while they are studying, and enhance their learning results (Yuslia et al., 2021). Learning results are enhanced by pictures (Artiningsih et al., 2019).

The novelty of this research lies in the application of the Picture and Picture learning model specifically for 4th-grade students in Gowa District, Indonesia, a context that has not been widely studied, particularly in this region. This study combines a cooperative approach with the use of more relevant and contextual visual media, thereby enhancing student engagement in social studies learning. Unlike previous research conducted in other regions or at different educational levels, this study specifically evaluates the impact of the Picture and Picture model on 4th-grade students, who possess unique social and cognitive developmental characteristics. This study utilizes images and picture stories tailored to the local context and students' social lives, aiming to facilitate their understanding of social studies content in a way that is closer to their daily lives. The integration of cooperative and visual learning in this research is also a distinguishing factor, as students are involved not only in individual learning but also in group discussions, which enhances their critical thinking skills and collaboration abilities. This study also evaluates the impact of the Picture and Picture model on two key aspects: student activity in learning and social studies learning outcomes, providing a more comprehensive view of the effectiveness of this model in improving the quality of learning at the elementary school level.

This research will make a significant contribution to the development of innovative learning models in Indonesia, particularly in enhancing the quality of social studies education at the elementary school level. Based on the findings of pertinent studies, the issue of poor student learning outcomes and learning activities can be resolved by "The Impact of the Picture and Picture Learning Model on Student Activity and Social Studies Outcomes: A Case Study of 4th Grade Students in Gowa District, Indonesia.

Method

This study uses a quantitative methodology with a quasi-experimental design to compare the usage of the Picture and Picture learning model with a strategy without the model, based on the activities and learning outcomes of fourth-grade social studies students in Gowa Regency. The Unequivalent Control Group Design methodology is used in this quantitative study. Two classes—one as the experimental class and the other as the control class—will be compared in this design. Every class will take a pretest prior to instruction and a post-test at the conclusion of the course. The research sample consists of students from Class IV A and Class IV B at SD Inpres Paccinongan. The research population consists of all 48 students from two fourth-grade classes at SD Inpres Paccinongan in the Somba Opu District. A saturation sampling strategy was used in this study. Using the paper roll method, the researcher applied a simple random sampling procedure. The class that received odd numbers was designated as the control class, and the class that received even numbers was designated as the experimental class. The control and experimental classes were grouped in this study.

This study employed documentation, learning outcome evaluation, and observation as data gathering methods. During the learning process, observations are made to watch and assess student actions, both those that use the Picture and Picture paradigm and those that do not. The data collection employed to evaluate the influence of the picture-in-picture approach on learning outcomes relies on evaluation indicators. The purpose of this pretest is to evaluate kids' beginning learning capacities. The post-test is the last assessment that students receive following the conclusion of the learning process. Post-test exercises seek to determine if students have grasped and comprehended the subject presented. Two approaches—descriptive statistical analysis and inferential statistical analysis—will be used to process and analyze the gathered data. Version 29.0 of the SPSS application program was utilized to assist in the computation of descriptive statistical data analysis and inferential statistics.

Descriptive statistical data analysis is used to analyze data by describing or illustrating the data that has been collected as it is without intending to make generalizations. Descriptive statistical data analysis in this research is intended to describe learning activities and outcomes. Educational Exercise In order to give a clear image of student learning activities, data linked to descriptive statistical data analysis of learning activities must be gathered, presented, and interpreted. Data on Learning Outcomes the Department of National Education's Standard categories serve as a guide for the criteria utilized to classify the student learning outcomes in this study.

Students are required to meet an average minimum completeness criterion (KKM) of at least 75. The pupil in question has attained individual completeness based on these standards. Additionally, if at least 85% of the students in the class have attained the KKM, the learning is considered classically complete. Analyzing Inferential data for the Normalcy test the purpose of the normality test, is to determine whether the residual or confounding variables in the regression model have a normal distribution. Finding out if the variances of two or more distributions are the same is known as the homogeneity test. The Homogeneity of Variance Test and the Bartlett Test are the homogeneity tests that will be covered in this essay. The purpose of this study's hypothesis test was to ascertain how the Picture and Picture learning paradigm affected the social studies learning outcomes and activities of class IV pupils. The Manova and ANOVA tests (Multivariate Analysis of Variance) are employed to evaluate this hypothesis.

Results

An Explanation of The Learning Activities for Students Experimental Educational Exercises

The order to provide a comprehensive picture of student learning activities, descriptive statistical data analysis of learning activities entails data collection, presentation, and interpretation.

Table 1. *Types of Learning Activities for Students*

Interval Skor	Kategori	Frekuensi	Persentase
0-54	Not Good	0	0
55-59	Less	0	0
60-75	Enough	2	8,3
76-85	Good	7	29,16
86-100	Very Good	15	62,5
Total		24	100

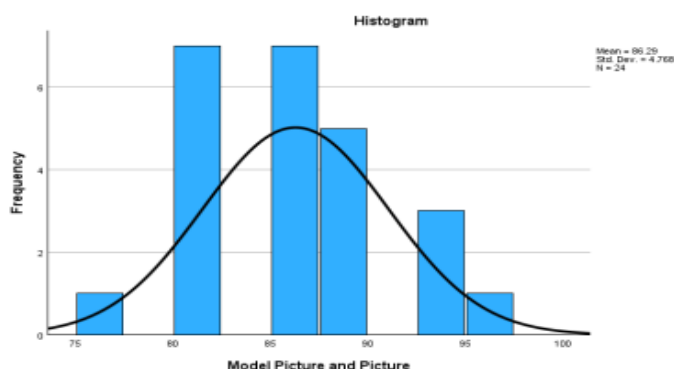
Based on table 1, the score range from 0 to 54 indicates poor performance, with no significant achievement. Students in this category need additional attention and assistance in improving their understanding of the subject matter. Then, the range of 55 to 59 indicates poor performance, indicating some progress, but still requires further effort to reach the expected standard. Meanwhile, the score category of 60 to 75 describes adequate performance, with some aspects met, but there is still room for improvement. The score range of 76 to 85 indicates good performance, with students showing a solid understanding of the material and the ability to apply it well in relevant contexts. Praise and encouragement are needed to maintain this level of achievement. Lastly, a score between 86 and 100 indicates exceptional achievement, where pupils show a profound comprehension of the material, inventiveness, and the capacity to generate exceptional outcomes.

Controlling Learning Activities.

Enhancing pupils' skills within the framework of the educational process, which in this instance does not make use of the Picture and Picture learning paradigm. Students' learning activities in the control class, which did not use the Picture and Picture model, can be characterized by a range of ratings that reflect their performance quality and degree of achievement. The majority of pupils do poorly, making little to no growth in their comprehension of the subject matter or predicted abilities, according to scores between 0 and 54. A range of 55 to 59 indicates slight improvement, but is still in the poor performance category, indicating early efforts to improve student understanding and performance. Meanwhile, students in the 60 to 75 range can be categorized as performing adequately, with most students demonstrating adequate understanding of the material and relevant skills. The range of 76 to 85 indicates that a small percentage of students have reached a good level of performance, demonstrating solid understanding and the ability to apply concepts in appropriate contexts. Enhancing pupils' skills within the framework of the educational process, which in this instance does not make use of the Picture and Picture learning paradigm. Students' learning activities in the control class, which did not use the Picture and Picture model, can be characterized by a range of ratings that reflect their performance quality and degree of achievement. The majority of pupils do poorly, making little to no growth in their comprehension of the subject matter or predicted abilities, according to scores between 0 and 54.

Students' Educational Activities in The Fourth-Grade Experimental Class

Data normalcy testing is performed prior to hypothesis testing. The validity and dependability of the statistical analysis performed, normality testing is done.



Grafik 1. Diagram Normalitas Data

Based on the results of the PP-Plot test, it shows an inverted bell pattern, so it can be concluded that the data is normally distributed. Furthermore, after the data normality test is fulfilled, it is continued with the data homogeneity test which is presented as follows:

Table 2. Tests of Homogeneity

Tests of Homogeneity of Variances					
		Levene Statistic	df1	df2	Sig.
Kelas	Mean	2.138	2	66	.126
Eksperimen	Median	1.338	2	66	.269
	Median and with adjusted df	1.338	2	37.678	.275
	Based on trimmed mean	1.763	2	66	.180

Based on the data in Table 2, there is no significant difference in variance between the data groups tested, according to the alpha significance value of the homogeneity test of 0.126, so statistical analyses such as the mean difference test and analysis of variance (ANOVA), which rely on the assumption of homogeneity, can proceed. The regression analysis is conducted to answer questions about the influence or relationship between one independent variable (Picture and Picture Learning Model) and one dependent variable (learning activity). The following is how the test results are displayed:

Table 3. Uji Coefficient

Table 1. Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	53.361	1.279		4.727	.000
	Picture and Picture	.395	.195	.485	8.633	.040
Dependent Variable: Aktivitas Eksperimen						

Based on the regression coefficient of 0.395, there will be a corresponding gain of 0.395 points in student learning activities for each one-time increase in the use of the Picture and Picture learning model. Student learning activities benefit by 0.397 points for every 1% increase in the use of the Picture and Picture learning approach.

Table 4. Uji Anova

ANOVA ^a						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	607.688	1	607.688	4.132	.040
	Residual	1115.188	23	89.931		
	Total	7122.875	24			
a. Dependent Variable: Aktivitas Eksperimen						
b. Predictors: (Constant), Picture and Picture						

The Picture and Picture learning model has a considerable impact on student learning activities, as evidenced by the significance of the alpha obtained of 0.040, which is lower than the alpha value of 0.050. The Picture and Picture learning model and student learning activities are likely to be related or influential, as indicated by the alpha value of 0.040. Thus, the study's conclusions show that the project-based learning paradigm has a big influence on students' learning activities.

Table 5. Uji Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.485a	.184	.184	3.99186
a. Predictors: (Constant), Picture and Picture				

The Picture and Picture learning model accounts for 18.4% of the variation in learning activities, according to the determination coefficient of 0.184.

Discussion

Based on regression analysis, a significant increase in student learning activities will occur with each increase in the use of the Picture and Picture learning model, according to the regression coefficient produced. This result aligns with previous studies showing that visual-based teaching strategies can increase students' interest in the material (Ahmad et al., 2018). Each new use of the Picture and Picture model enhances student learning activities. There is a significant relationship between student learning activities and the implementation of the Picture and Picture model, as evidenced by the significance value (alpha) being less than 0.05. These findings are consistent with recent studies showing that picture-based and cooperative learning methods can significantly improve learning outcomes (Suleman & Idayanti, 2024).

The potential relationship or influence between the Picture and Picture model and student learning activities is indicated by this low alpha value, which shows that the relationship between the two is significant. The decrease in the alpha value, indicating a strong relationship, emphasizes that the implementation of the Picture and Picture learning model significantly contributes to improving student learning activities. The Picture and Picture model not only enhances student participation at every stage of learning but also encourages their active involvement in group discussions and reflection on the material taught. This model, which combines visual and cooperative learning, allows students to connect learning concepts with relevant images, which accelerates understanding and improves critical thinking skills.

The results of this study also show that the Picture and Picture model explains 65% of the variation in student learning activities, as measured by the coefficient of determination (R^2). This highlights the importance of applying this model in the educational context, especially to improve the standards of learning in elementary schools. These findings align with previous studies that revealed the positive impact of using image-based learning strategies on increasing student motivation and learning activities. Research shows that image-based learning models can stimulate memory and better understanding of the material, as images can simplify complex concepts (Maulidasari & Novianti, 2022). Other studies have also found that the use of the Picture and Picture model in cooperative learning encourages social interaction and cooperation among students, which in turn improves their communication and collaboration skills (Rozi et al., 2021).

Other research also confirms that using images as learning aids can increase student engagement, making it easier for them to understand the lesson in a more engaging and contextual manner (Syarifuddin, 2019). The visual concepts used in the Picture and Picture model provide dual stimulation—both verbal and visual—which has been proven effective in enhancing student memory. This shows that this model is not only relevant in the context of social studies learning but can also be applied across various subjects to improve the quality of learning in elementary schools. Fourth-grade students can improve their knowledge of Natural Landscapes and Professions and learn about Indonesia's Natural Landscapes in an engaging and participatory manner by utilizing the Picture and Picture learning technique. Teachers can create picture-based learning activities that help fourth-grade elementary students appreciate Indonesian natural landscapes while also fostering their cognitive, social, and emotional development. The Picture and Picture learning method also encourages critical and cooperative thinking in students.

Based on the results, it can be concluded that teaching fourth-grade students about Indonesia's natural landscapes using the Picture and Picture technique is very effective. This method also encourages student participation, social interaction, and teamwork. Visual-based learning techniques can greatly enhance students' cognitive abilities, according to (Gustiawan et al., 2023). The Picture and Picture approach in Social Studies uses images to illustrate ideas or scenarios, including the features of landscapes. Students are required to evaluate these images in this context and find relevant information. The key component of this approach is group discussions, where students develop their understanding of the material being taught and share what they have learned. The Picture and Picture cooperative learning approach has been shown to improve students' critical thinking abilities as well as their communication and teamwork skills. Many other studies suggest that interactive learning models can significantly enhance student motivation and learning outcomes, which is consistent with these findings (Yuslia et al., 2021).

Students gain collaboration skills and participate in the discussion process through this teaching approach, which has a direct impact on the development of their social and cognitive abilities. Unlike traditional learning, students who actively participate in group discussions demonstrate better comprehension, according to research by (Artiningsih et al., 2019). The application of the Picture and Picture learning model to teach about Natural Landscapes to fourth-grade students. Educational theory can be a foundation for designing effective learning activities. This is consistent with previous findings that suggest meaningful learning occurs when students connect new information with knowledge they already possess (Khasanah et al., 2022). The students can connect images of diversity with their previous experiences or knowledge about that diversity.

This study supports relevant learning outcome theories, which can serve as a foundation for understanding the influence and effectiveness of learning when it comes to teaching fourth-grade students using the Picture and Picture learning paradigm. The theory of cooperative learning emphasizes the importance of student cooperation in achieving shared learning objectives (Dewi & Wardani, 2020). Students can collaborate in small groups to complete tasks related to the diversity depicted in the images within the Picture and Picture learning method. Through this cooperation, they can gain a deeper understanding of the material, support one another, and learn from each other.

Learning theory and relevant research supporting the effectiveness of this model form the basis for the hypothesis that the Picture and Picture learning model improves the learning activities of fourth-grade students at SD Inpres Paccinongan, Gowa Regency. Constructivism theory highlights how learning occurs when new experiences are connected with prior knowledge. The images provided in the Picture and Picture learning approach serve as stimuli that help students develop new information using existing cognitive schemes. Social constructivism emphasizes the importance of social interaction in the Picture and Picture learning approach, where students collaborate in groups to solve problems and engage in discussions. Previous research shows that the application of the Picture and Picture learning approach promotes better understanding and improves student retention (Dewi et al., 2022). This is supported by the concept of learning motivation.

The idea that drawing and group projects increase students' motivation because they make learning engaging and relevant, while meeting their basic needs and fostering a sense of community, is a key factor. Students have the opportunity to actively engage in their education using the Picture and Picture learning method. This is supported by previous research that revealed the Picture and Picture learning approach enhances student engagement and academic achievement (Praseptia & Zulherman, 2021). Visual stimuli are crucial for the information processing theory of the Picture and Picture learning model in student learning activities because they help students understand and retain knowledge. Dual coding—verbal and visual—can be achieved with images, which enhances memory. This is in line with previous studies showing that students feel the learning process is significantly improved (Pratiwi & Aslam, 2021). Using visual aids to clarify concepts or encourage active learning is one way to promote student learning activities.

The study's findings show that the implementation of the Picture and Picture learning paradigm significantly and positively affects student learning activities. Through visualization, this approach not only makes abstract concepts easier to understand, but also fosters student participation and teamwork. Therefore, the application of this model is highly relevant to improving the quality of education in Indonesia, particularly in the field of social studies instruction in primary schools.

Conclusion

The application of the Picture and Picture learning model has been proven to have a significant impact on student activities and learning outcomes, as evidenced by the significance values (sig) that are smaller than the alpha used in this study. These findings indicate that the picture-based learning technique successfully increases student engagement and improves their academic performance, particularly in social studies. Thus, this study has achieved its goal of assessing the impact of the Picture and Picture model on student learning activities and outcomes.

This study also has limitations, including the limited sample, which only includes 4th-grade students from Gowa District, and the potential other variables that have not been thoroughly explored, such as individual student motivation or the physical conditions of the classroom. The duration of the model's implementation in the classroom was limited, so the long-term effects of this model's application could not be measured. Based on the research findings, it is recommended that the application of the Picture and Picture model in schools be further optimized by considering alternative learning activities that support the enhancement of the learning process. Teachers should focus on strengthening student collaboration through group discussions and task division. Future research could explore other learning models that could improve student interaction and enrich the variation of learning strategies to enhance students' social and academic skills.

Acknowledgment

-

References

- Ahmad, H., Hatu, R. A., & Ilato, R. (2018). Penggunaan Model Pembelajaran Picture and Picture Terhadap Motivasi Belajar Dan Hasil Belajar Siswa di Kelas V Sdn 88 Kota Gorontalo. *Akademika*, 7(2), 172-184. <https://dx.doi.org/10.31314/akademika.v7i2.1027>
- Arini, D. A., Gianistika, C., & Ropiah, N. S. (2021). Upaya Meningkatkan Motivasi Belajar Siswa Melalui Penerapan Model Pembelajaran Kooperatif Picture and Picture Pada Mata Pelajaran IPS Materi Peninggalan Sejarah di Indonesia. *Jurnal Tahsinia*, 2(1), 110-124. <https://doi.org/10.57171/jt.v2i1.281>
- Artiningsih, A., Riyanto, Y., & Harmanto, H. (2019). Influence of Learning Model Type Cooperative Scramble with Picture Media on Motivation and Student's Learning Outcomes of IPS Class 2 SDN 2 Tropodo. *International Journal for Educational and Vocational Studies*, 1(2), 81-85. <https://doi.org/10.29103/ijevs.v1i2.1422>
- Dewi, R. K., & Wardani, K. W. (2020). Pengaruh model pembelajaran picture and picture ditinjau dari kemampuan berpikir kritis siswa sekolah dasar. *Jurnal Basicedu*, 4(4), 1066-1073. <https://doi.org/10.31004/basicedu.v4i4.511>
- Dewi, R., Hidayat, S., & Sumah, A. S. (2022). Improving Learning Outcomes of Human Circulatory System Materials with Picture and Picture. *JMKSP (Jurnal Manajemen, Kepemimpinan, dan Supervisi Pendidikan)*, 7(1), 53-66. <https://doi.org/10.31851/jmksp.v7i1.6418>
- Gustiawan, R., Erita, Y., Nadia, D. O., & Henita, N. (2023). The Effect of Picture and Picture Type Cooperative Learning Model on Participation and Learning Outcomes of Grade IV Elementary School Students. *Journal of Digital Learning and Distance Education*, 2(3), 533-543. <https://doi.org/10.56778/jdlde.v2i3.50>
- Gustina, E. (2023). Penggunaan Model Pembelajaran Picture and Picture Untuk Meningkatkan Aktivitas Belajar Siswa Mata Pelajaran IPS Kelas IX 3 Di SMPN 1 Pariaman. *EDUTECH: Jurnal Inovasi Pendidikan Berbantuan Teknologi*, 3(2), 168-175. <https://doi.org/10.51878/edutech.v3i2.2356>
- Khasanah, A. N., Santosa, S., Indrowati, M., & Septiyanto, A. (2022). The Effect of Picture and Picture Integration with Guided Note Taking accompanied by Optimization of Teaching Aids Learning Outcomes. *Jurnal Penelitian Pendidikan IPA*, 8(2), 724-730. <https://doi.org/10.29303/jppipa.v8i2.1420>

- Maulidasari, M., & Novianti, N. (2022). Upaya Peningkatan Hasil Belajar Siswa Kelas III Pada Konsep Pecahan Melalui Penerapan Model Pembelajaran Picture and Picture. *Asimetris: Jurnal Pendidikan Matematika dan Sains*, 3(2), 90-94. <https://doi.org/10.51179/asimetris.v3i2.1560>
- Praseptia, D., & Zulherman, Z. (2021). Pengaruh model pembelajaran picture and picture terhadap peningkatan prestasi belajar siswa sekolah dasar. *Edukatif: Jurnal Ilmu Pendidikan*, 3(5), 3018-3025. <https://doi.org/10.31004/edukatif.v3i5.1073>
- Pratiwi, N., & Aslam, A. (2021). Pengaruh Model Pembelajaran Picture And Picture terhadap Kemampuan Berpikir Kreatif Siswa di Sekolah Dasar. *Edukatif: Jurnal Ilmu Pendidikan*, 3(6), 3697-3703. <https://doi.org/10.31004/edukatif.v3i6.1081>
- Prihatiningsih, E., & Setyanigtyas, E. W. (2018). Pengaruh Penerapan Model Pembelajaran Picture and Picture Dan Model Make a Match Terhadap Hasil Belajar Siswa. *JPsds (Jurnal Pendidikan Sekolah Dasar)*, 4(1), 1-14. <https://dx.doi.org/10.30870/jpsd.v4i1.1441>
- Riyono, B., & Retnoningsih, A. (2015). Efektivitas model pembelajaran picture and picture dengan strategi inkuiri terhadap motivasi dan hasil belajar siswa. *Journal of Biology Education*, 4(2). <https://doi.org/10.15294/jbe.v4i2.8907>
- Rozi, F., Widat, F., & Efandari, E. (2021). Implementasi Model Pembelajaran Picture and Picture Dalam Meningkatkan Hasil Belajar Anak Usia Dini. *Muróbbi: Jurnal Ilmu Pendidikan*, 5(1), 127-142. <https://doi.org/10.52431/murobbi.v5i1.380>
- Salma, S., Kistian, A., & Thaariq, S. M. H. (2023). Use of Picture and Picture Models to Improve Student Learning Outcomes in Class III Natural Resources Theme of SD Negeri Langung. *International Journal of Students Education*, 10-14. <https://doi.org/10.62966/ijose.v1i1.345>
- Sukaesih, S. (2024). The Influence of the Picture and Picture Model with the JAS Approach on Cognitive Learning Outcomes and Student Creativity at SMA Negeri 1 Jakenan. *Journal of Biology Education*, 13(2), 155-164.
- Suleman, M. A., & Idayanti, Z. (2024). Improving Student Learning Outcomes Through the Picture and Picture Cooperative Learning Model. *Ideguru: Jurnal Karya Ilmiah Guru*, 9(3), 1939-1947. <https://doi.org/10.51169/ideguru.v9i3.1155>
- Syarifuddin, S. (2019). Meningkatkan Hasil Belajar Peserta Didik pada Mata Pelajaran IPS Menggunakan Model Pembelajaran Picture and Picture. *Southeast Asian Journal of Islamic Education*, 2(1), 51-66. <https://doi.org/10.21093/sajie.v2i1.1657>
- Syawaluddin, A., Afriani Rachman, S., & Khaerunnisa. (2020). Developing Snake Ladder Game Learning Media to Increase Students' Interest and Learning Outcomes on Social Studies in Elementary School. *Simulation & Gaming*, 51(4), 432-442. <https://doi.org/10.1177/1046878120921902>
- Tarigan, J. E. (2020). Improving Social Studies Learning Outcomes Using Image Media for Grade IV Students, Mis Al-Khairat Deli Tua. *Jurnal Ilmiah Teunuleh*, 1(2), 299-307. <https://doi.org/10.51612/teunuleh.v1i2.105>
- Yuslia, D., Hasnah, H., Safarudin, R., & Helfikri, H. (2021). The Effectiveness of The Picture and Picture Learning Model in Improving Student Learning Outcomes In Elementary Schools. *Khalifa: Journal of Islamic Education*, 5(1), 80-92. <https://doi.org/10.24036/kjie.v5i1.33>