

ENGAGING YOUNG MINDS IN CIVIC EDUCATION WITH FUN PICTURE AND PICTURE ACTIVITIES IN GRADE IV

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Abstract *The primary objective of this research was to evaluate the efficacy of the Picture and Picture cooperative learning paradigm in enhancing the learning outcomes of fourth-grade students in PPKN, with a particular emphasis on their comprehension of the symbolic meanings of Pancasila principles. The researchers implemented a Classroom Action Research (CAR) design encompassing planning, implementation, observation, and reflection phases over two teaching cycles. Students actively learned through collaborative activities during each cycle, including various instructional meetings. Evaluative assessments and observational protocols were implemented to evaluate student advancement. Following the implementation of the Picture and Picture model, the percentage of students meeting the minimum competency standard (KKM) increased from 37.93% in the pre-cycle to 82.75%, indicating a substantial improvement in student learning. The intervention's effectiveness was also evident in the students' improved average scores. These results corroborate the assertion that the Picture and Picture paradigm effectively improves student comprehension of PPKN materials, fostering a more prosperous and interactive learning experience. The implications for future research include examining the long-term retention of knowledge acquired through innovative teaching methods and examining the model's applicability across various subjects and educational levels. Furthermore, educators are encouraged to incorporate this model into their pedagogical practices to improve the quality of students' civic education.*

Keyword: Cooperative Learning, Picture and Picture Model, Civic Education

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Abstrak *Tujuan* utama dari penelitian ini adalah untuk mengevaluasi efektivitas paradigma pembelajaran kooperatif Picture and Picture dalam meningkatkan hasil belajar siswa kelas empat dalam PPKN, dengan penekanan khusus pada pemahaman mereka terhadap makna simbolis prinsip-prinsip Pancasila. Para peneliti menerapkan desain Penelitian Tindakan Kelas (PTK) yang mencakup fase perencanaan, pelaksanaan, observasi, dan refleksi selama dua siklus pengajaran. Siswa belajar secara aktif melalui kegiatan kolaboratif selama setiap siklus, termasuk berbagai pertemuan instruksional. Penilaian evaluatif dan protokol observasi diterapkan untuk menilai kemajuan siswa. Setelah penerapan model Picture and Picture, persentase siswa yang memenuhi standar kompetensi minimum (KKM) meningkat dari 37,93% pada pra-siklus menjadi 82,75%, menunjukkan perbaikan yang substansial dalam pembelajaran siswa. Efektivitas intervensi juga terlihat dari peningkatan skor rata-rata siswa. Hasil ini mendukung pernyataan bahwa paradigma Picture and Picture secara efektif meningkatkan pemahaman siswa terhadap materi PPKN, mendorong pengalaman belajar yang lebih interaktif dan sukses. Implikasi untuk penelitian mendatang mencakup penelusuran retensi jangka panjang pengetahuan yang diperoleh melalui metode pengajaran inovatif serta memeriksa penerapan model ini di berbagai subjek dan tingkat pendidikan. Selain itu, para pendidik didorong untuk mengintegrasikan model ini ke dalam praktik pedagogis mereka untuk meningkatkan kualitas pendidikan kewarganegaraan siswa.

Kata Kunci: Pembelajaran Kooperatif, Model Picture and Picture, PPKN

A. INTRODUCTION

Fundamental courses like civic education (PPKN) are absolutely important for forming students' national identity and encouraging a love of their country. These disciplines teach critical thinking techniques necessary for members of a democratic society as well as moral principles (Fuentes-Moreno et al., 2020; Santos Meneses, 2020). A comprehensive civic education can greatly affect students' perspective on national ideals and their responsibilities as responsible citizens, as several educational theorists have underlined. Though PPKN is clearly important, earlier research have shown difficulties providing this curriculum, especially in primary education environments. Studies have indicated, for example, that conventional lecture-based methods sometimes fail to really involve students, which results in a lack of knowledge and memory of important ideas (Pratiwi & Wuryandani, 2020; Sutrisno & Prastiwi, 2023). This literature stresses the importance of creative teaching strategies to improve PPKN student involvement and learning results.

Nonetheless, the body of current research sometimes ignores the particular difficulties in using these creative approaches in the framework of elementary schools,

especially in Grade IV classrooms. Although some research support interactive and visual learning techniques, they do not sufficiently address the pragmatic challenges of including these approaches into the current syllabus (Darmawan et al., 2021; Lestari & I Nengah Suastika, 2021). This disparity emphasizes the need of more research on successful teaching strategies that can be modified to satisfy the particular requirements of younger students. Examining the application of the Cooperative Picture and Picture model which makes use of visual aids to improve knowledge and involvement in PPKN helps to close this gap. Through encouraging interactivity and creativity, this paradigm helps students to actively participate in their educational experience. This method solves the particular problems noted in past studies and conforms with contemporary educational beliefs. Strengthening this approach requires a thorough knowledge of how the Picture and Picture model may be successfully included into PPKN courses. Teachers can create a dynamic learning environment that fosters a greater knowledge and respect of civic principles among their students by planning interesting visual materials and using interactive technologies (Bustomi et al., 2025; Zhou, 2025). For younger students, this approach seems to boost academic performance and foster a stronger feeling of citizenship.

Civic Education (PPKN) is very important in determining how national views and love of their own country shape students (Andriani et al., 2023). Developing students who have a strong awareness of national values, critical thinking ability, and the capacity to engage in democratic society and act as responsible citizens is PPKN's main objective. Particularly with regard to the utilization of learning material, challenges frequently surface in PPKN's educational process at SDN 004 Sungai Kunjang Samarinda. Sometimes a lack of thorough knowledge causes students to struggle with the ideas being taught, maybe from poor explanations or insufficient practice chances. Teachers have to use several teaching strategies including interactive exercises, visual presentations, and demonstrations if they are to properly transmit the content. They should also give students chances to apply the ideas acquired by means of related projects or exercises.

Observations at SDN 004 Sungai Kunjang Samarinda revealed that Grade IV PPKN lessons sometimes adopt traditional lecture-based approaches. According to the data, students's PPKN performance is really poor when compared to other disciplines. Moreover, educators still have to figure out ways to improve the poor average PPKN marks. Consequently, student performance stays below ideal since many of them fall short of the set passing standards (KKM). According to preliminary assessments, only 10 out of 28 (36%) of Grade IV students satisfy the KKM of 75; 18 (64%), do not.

Observations demand modifications in the teaching and learning process. Teachers should create creative learning strategies that grab students' interest and help them to satisfy the set academic requirements in order to solve these difficulties. One unique quality of learning distinguishes it from other pursuits. Thus, not all activities that seem to be learning fit the definition of such. Besides, some elements can affect the learning process itself. Instructing guides for learning activities is important only when student learning takes place. Thus, it is vital for every teacher to thoroughly understand the learning process to provide appropriate guidance and create a conducive learning environment.

Furthermore, present in the idea of learning is the word "instruction". Though few people understand its significance, instruction basically happens in daily life. Instruction stands out from other activities in certain ways. An activity cannot be deemed instruction if it deviates from these qualities. Several terms are recognized in the learning process, such as learning models, approaches, methods, and tactics. Educators must understand these various terms, as a lack of familiarity can hinder learning and prevent achieving desired goals (Nandini et al., 2024). A key starting point is selecting the appropriate learning approach. Before choosing an approach, educators must understand its meaning and components (Dewi & Widinyani, 2022; Solihatin, 2022). Learning model is a conceptual framework for systematically organizing learning experiences to achieve educational goals for both learners and educators. The Cooperative Picture and Picture model is a learning model that utilizes images (or other visual products) as teaching media. This model resembles the example-non-example technique, requiring students to logically match and arrange several images. It means that learning is enhanced by visual media, which provides additional context. Moreover, having students arrange scrambled images into a logical order fosters creativity and interactivity in their engagement with the material. The Picture and Picture model as a learning approach that relies on images as the primary factor in the learning process, requiring images to be paired or arranged in a logical sequence (Lokat et al., 2022; Putri et al., 2023). Therefore, teachers must prepare the images beforehand, whether in posters, large cards or displayed using an LCD projector. The Picture and Picture model is a learning approach that employs several images as engaging media, providing additional context to the subject matter.

B. METHOD

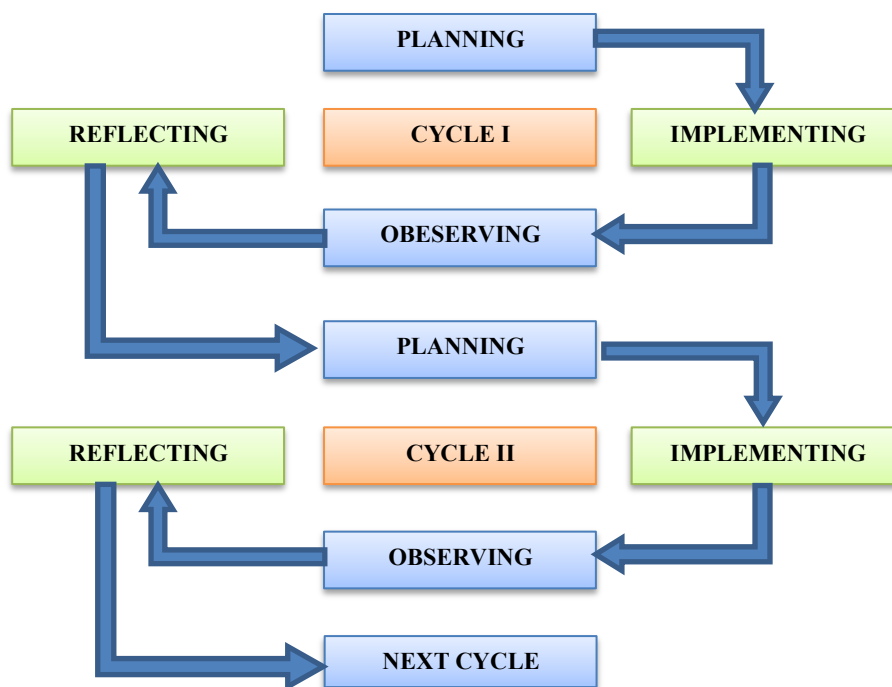
This study systematically assessed and enhanced Grade IV students' learning results at SDN 004 Sungai Kunjang Samarinda using Classroom Action Research (CAR) under the Cooperative Picture and Picture paradigm. The approach was supposed to ensure a disciplined and reflective mindset, allowing continuous student participation and refinement of the teaching strategies.

Subjects and Context

The study subjects were Grade IV students accompanied by their instructor, SDN 004 Sungai Kunjang, Samarinda. Among the 28 students, there were 11 men and 17 women. The study sought the students' learning outcomes in the Pancasila and Civic Education (PPKN), specifically about the content on the relevance of symbols linked with the Pancasila ideals. Complementing the PPKN curriculum theme 4, "Various Professions," the study was conducted in the first semester of the 2024/2025 academic year. The research occurred at Grade IV SDN 004 Sungai Kunjang, Jalan Cendana Gg. 08 RT.08 Karang Anyar, Kec. Samarinda, Kota Samarinda, Prov. Kalimantan Timur.

Research Procedure

Each of the several cycles in which the research was conducted consisted of four main phases: planning, activity, observation, and reflection. Continuous assessments show that this cycle technique permits iterative improvements. The researcher developed a comprehensive course of instruction (RPP) stressing enhancing PPKN student involvement and learning outcomes throughout the design stage. The plan called for creating cooperative learning environments, student grouping, homework preparation, production of end-of-session evaluation questions, and design of observation sheets for the teacher and students. Using the cooperative picture and picture model, the researcher followed the planned classroom activities throughout the action phase. This phase consisted of three sub-stages: the introduction, in which the teacher set the lesson objectives; the core activities, in which students worked cooperatively on visual aids to sort and relate images logically to the Pancasila principles; and the closure, in which the session was ended with a recap and quick assessment to evaluate knowledge.



Picture 1. Cycle in CAR (Arikunto, 2021)

Every learning session in the observation phase was used methodically to document the interactions and degrees of participation between the teacher and the students. An observation checklist helped to compile data on the effectiveness of student participation and instructional techniques (O'Leary, 2020). The reflection portion of every cycle consisted of the researcher and viewers discussing the findings of the observations. They discovered areas of instructional process strength and weakness that let them make the necessary adjustments in the subsequent cycles. If the students' learning results improved, the model was deemed successful; otherwise, more cycles were planned for continuous development.

Technique of Collecting Data

During the investigation, numerous data-collecting techniques were applied. Every learning session was meticulously watched to record instructor and student activity, providing data on the effectiveness of the teaching strategies. Students received learning outcome tests to evaluate their topic knowledge at the end of each cycle. These tests matched the learning objectives and consisted of open-ended and multiple-choice

questions. Several records, including student participation records, images of classroom activities, and student report cards, were used to support the findings.

Data Analysis

Data analysis involved calculating the mean scores of student assessments and determining the percentage of students achieving the minimum competency criteria (KKM) of 75. The mean was calculated by dividing the total score by the number of students. To assess the percentage of completeness, the number of students who passed was compared to the total number of students, and this value was expressed as a percentage. Additionally, the improvement percentage was determined by comparing the post-intervention scores to the baseline scores. This systematic approach ensured the reliability and validity of the research findings, ultimately contributing to the enhancement of student learning outcomes in PPKN at SDN 004 Sungai Kunjang Samarinda.

C. RESULT AND DISCUSSION

Classroom Action Research (CAR) was carried out in September 2024 at SDN 004 Sungai Kunjang during the first semester of the academic year 2024/2025. Two cycles of this study, each comprising two sessions, were undertaken. Comprising 13 male and 16 female kids, the fourth-grade class used for the study consisted of 29 members. While teacher collaborator watched the teaching and learning process in line with the Lesson Plan (RPP), the researcher took the front stage in the classroom. This study sought to ascertain whether the cooperative learning model Picture and Picture for fourth-grade students at SDN 004 Sungai Kunjang improved learning outcomes for PPKN, especially the meaning of the relationship between symbols and the Pancasila principles. At the end of every meeting, students were handed assessment sheets meant to gauge their skills. After each meeting, the data from these assessment sheets were examined to ascertain the degree of learning outcome improvement every student attained. Teacher activity observation sheets, student activity observation sheets, and evaluation test sheets presented the data gathered for this study.

Teacher's Activity

Understanding the pedagogical strategies used in the classroom depends mostly on observing teacher behaviour to increase instructional efficiency. Two separate cycles of a standardized observation sheet allow this study to assess instructor behavior. This exam is based on the cooperative learning approach, especially Picture & Picture. The study intends to underline the effectiveness of the chosen learning method and the developments in teachers' interaction with their students. This investigation compares Cycle I and II to clarify how methodical observations affect teaching strategies and student learning outcomes.

Table 1. Teacher's Activity Observation Results

Assessment Stage	Meeting	Score	%	Criteria
Cycle I	First	43	82.64%	Good
	Second	46	88.46%	Very Good
Average Score		44.5	85.57%	Very Good
Cycle II	First	49	94.23%	Very Good
	Second	51	98.07%	Very Good
Average Score		50	96.13%	Very Good

Based on the data in Table 1, teacher activity observations during Cycles I and II reveal that performance indicators have much improved. From "Good" to "Very Good" grades, the average score for teachers evaluated on 13 criteria during two meetings during cycle I was 85.57%. The first cycle developed important components, including student engagement and properly defined learning objectives. Including 14 assessment categories in the evaluation criteria in Cycle II helped to improve performance measures. The average score improved, and teaching tactics were successfully changed to 96.13%. Improving instructional tactics during both cycles required early feedback. Teachers changed their approaches to better group dynamics, encourage a closer knowledge of the content, and increase student participation. The change from Cycle I to Cycle II emphasizes the benefits of reflective education methods, including constant observation and adaptation to improve learning outcomes.

Students' Activity

The observations taken during Cycle I and Cycle II of the student activities. Both cycles utilized observation sheets specifically designed during the planning phase, evaluating four key aspects: listening to the teacher's explanations, the ability to ask and answer questions, discussion skills, and discipline.

Table 2. Students' Activity Observation Results

Assessment Stage	Meeting	Total Score	Average	%	Criteria
Cycle I	I	265	9.13	57.11%	Sufficient
	II	298	10.27	64.22%	Fairly Good
Average Score		281.5	9.70	60.69%	Fairly Good
Cycle II	I	342	11.79	73.70%	Good
	II	379	13.06	81.68%	Good
Average Score		360.5	12.41	77.69%	Good

Table 2 showed that student participation and engagement levels significantly rose depending on the findings of observations of student activity in Cycle I and II. Considered a sufficient rating, the average percentage of student involvement noted in Cycle I was 60.66%. In Cycle II, though, this number rose to 77.69%, suggesting a rise in student involvement. More information reveals that students scored 342, representing 73.70%, with an excellent rating in the first Cycle II meeting. The score in the second meeting came out to 379, or 81.86%, also classified as good. This rise indicates that the cooperative learning approach exactly the Picture and Picture type used by the teacher was successful in helping students become more disciplined and involved in the sessions, so improving their capacities to listen, ask questions, and participate in debates. The study of the observation data shows generally that the used learning tactics were effective and clearly improved student growth.

Students' Score

Based on the assessments conducted over two cycles, each consisting of two meetings with tests on learning outcomes at each meeting, there was an improvement in the average student scores and the percentage of students meeting the learning completeness criteria from pre-cycle, Cycle I, and Cycle II. The recap of this improvement can be seen in the following figure.

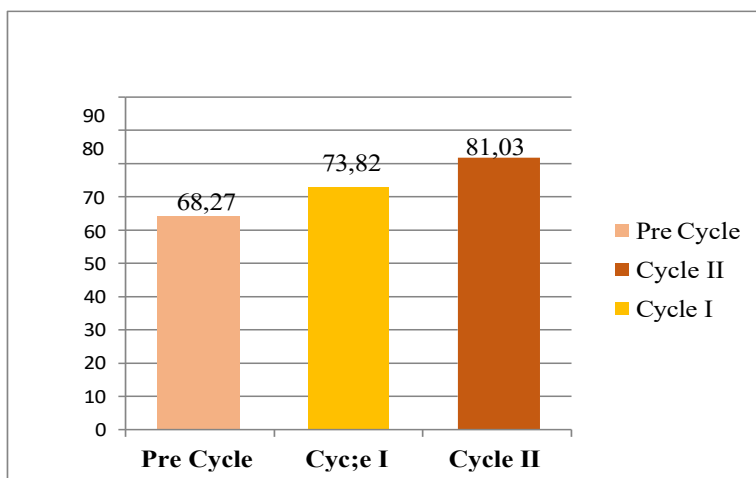


Figure 1. Mean Score of Students' Score

Based on the data in table 2 student learning outcomes in PPKN pertaining to the meaning of the relationship between symbols and the principles of Pancasila through the Picture and Picture cooperative learning model show an increase from the pre-cycle to Cycle I and Cycle II. It can be noted that the average score in the pre-cycle was 68.27, which then increased to 73.82 in Cycle I, and further improved to 81.03 in Cycle II. Therefore, it can be concluded that the learning outcomes of students continuously improved from the pre-cycle stage through Cycle I to Cycle I This study's findings indicate that applying the Picture and Picture cooperative learning model has successfully improved the learning outcomes of PPKN students. Specifically, there was a noticeable increase in the average score from 68.27 in the pre-cycle to 81.03 in Cycle II, with the percentage of students reaching the completeness criteria rising from 37.93% to 82.75%.

It signifies a significant enhancement in student understanding of the relationship between symbols and the principles of Pancasila throughout the study.

These findings are important because they illustrate the impact of engaging teaching methods on student learning. Before implementing the Picture and Picture model, many students struggled to grasp essential concepts, as reflected in their initial assessments. By providing stimuli that aligned with their learning styles and interests, the model facilitated knowledge acquisition and increased student motivation and engagement in the learning process. It suggests that students are more likely to achieve academic success with appropriate instructional strategies. A consistent pattern emerges when comparing these results to similar studies, such as those conducted by (Fadjarajani et al., 2020; Sayekti, 2022). Both studies also highlight the effectiveness of the Picture and Picture model in enhancing learning outcomes in various subjects. For example, Fadjarajani's study noted increased student activity and engagement when using this model, paralleling the findings of this research. This alignment suggests that cooperative learning strategies can be broadly effective across diverse educational contexts, particularly in primary education.

However, it is essential to consider alternative explanations for the findings. Factors such as improved classroom management, increased teacher preparation, and enhanced classroom conditions may have contributed to the improvements. The proactive measures taken by the teacher, including ensuring a comfortable learning environment and using high-quality visuals, undoubtedly played a crucial role in facilitating student learning, suggesting that effective teaching requires a multi-faceted approach. Despite the positive outcomes, this study is not without its limitations. The research was conducted in a single school and focused solely on a specific group of students, which may limit the generalizability of the findings. Factors influencing student success, such as family support and socio-economic conditions, were not directly addressed. Future studies could broaden the sample size and consider these external factors to provide a more comprehensive understanding of the effectiveness of cooperative learning models. The research demonstrates that employing the picture-and-picture model in teaching PPKN can significantly enhance student learning outcomes.

The findings contribute to the growing body of evidence supporting the use of innovative teaching strategies to foster educational achievement while also highlighting the necessity for continued exploration and validation of these approaches across various educational settings.

CONCLUSION

This study primarily sought to find whether the Picture and Picture cooperative learning methodology will improve fourth-grade students' learning results in PPKN, most especially in relation to their awareness of the symbolic meanings within the Pancasila principles. By use of a carefully crafted action research framework, the study aimed to not only enhance student understanding but also encourage involvement and interaction inside the classroom setting. This study produced interesting results showing that student performance in the second cycle greatly raised from a pre-cycle average score of 68.27 to 81.03. Moreover, the proportion of students satisfying the minimal competency level (KKM) jumped from 37.93% to an amazing 82.75%. These findings highlight the novelty of this work since they show how well a certain pedagogical method improves the learning results in important civic education resources. The results of this investigation match regularly with their original goals. Using the Picture and Picture paradigm not only helped students to better grasp Pancasila but also promoted more peer cooperation and engagement. The research's success emphasizes its relevance in the context of education and provides a consistent model for teachers trying to introduce creative learning strategies into their classrooms.

Future studies could investigate extending the picture and picture model's application to various subjects or educational levels, assessing its efficacy across several settings and ethnicities. Studies might also look at the long-term memory of knowledge acquired using this teaching approach, so offering more understanding of its practical sustainability. This study clearly addressed its main goal by proving that among fourth graders, the Picture and Picture cooperative learning paradigm could significantly raise PPKN learning results. This concept is highly advised for teachers and school managers to take into account including into their curricula in order to create a more interesting and efficient learning environment. Moreover, recommendations for pragmatic action consist

in giving teachers appropriate instruction on the Picture and Picture approach and in making sure the required tools and supplies are available to enable their application.

REFERENCE

- Andriani, A., Maryani, E., & Affandi, I. (2023). The Vital Role of Pancasila Values in Building National Character Through Civics Education. *AL-ISHLAH: Jurnal Pendidikan*, 15(3), 3051–3062. <https://doi.org/10.35445/alishlah.v15i3.4067>.
- Arikunto, S. (2021). *Penelitian tindakan kelas: Edisi revisi*. Bumi Aksara.
- Bustomi, A. A., Khosiah, N., & Fathurrohman, A. (2025). Developing Pancasila Learning Strategies through Culture-Based Interactive Media in Elementary Schools. *Assyfa Learning Journal*, 3(1), 43–56. <https://doi.org/10.61650/alj.v3i1.622>.
- Darmawan, R., Hariyatmi, H., & Supriyanto, S. (2021). Penerapan Media Audio Visual Untuk Meningkatkan Hasil Belajar Kognitif Muatan Pelajaran Ppkn Peserta Didik Kelas VI B di SD Negeri 01 Tawangmangu. *Educatif Journal of Education Research*, 4(1), 19–26. <https://doi.org/10.36654/edukatif.v4i1.88>.
- Dewi, P. I. A., & Widinyani, N. (2022). *Desain Pembelajaran PPKN di Sekolah Dasar*. Yayasan Penerbit Muhammad Zaini.
- Fadjarajani, S., Rosali, E. S., & Noerdianasari, W. (2020). Pengaruh Model Pembelajaran Picture And Picture Terhadap Hasil Belajar Geografi. *Perspektif Ilmu Pendidikan*, 34(1), 19–28. <https://doi.org/10.21009/PIP.341.3>.
- Fuentes-Moreno, C., Sabariego-Puig, M., & Ambros-Pallarés, A. (2020). Developing social and civic competence in secondary education through the implementation and evaluation of teaching units and educational environments. *Humanities and Social Sciences Communications*, 7(1), 39. <https://doi.org/10.1057/s41599-020-0530-4>.
- Lestari, P. I., & I Nengah Suastika. (2021). Pengembangan Media Pembelajaran Audio Visual PPKn Muatan Persatuan dalam Keberagaman. *Indonesian Journal of Learning Education and Counseling*, 4(1), 34–42. <https://doi.org/10.31960/ijolec.v4i1.1023>.
- Lokat, Y. T., Bano, V. O., & Enda, R. R. H. (2022). Pengaruh Model Pembelajaran Kooperatif Tipe Picture And Picture Terhadap Hasil Belajar Siswa. *Binomial*, 5(2), 126–135. <https://doi.org/10.46918/bn.v5i2.1450>.
- Nandini, S., Montessori, M., Suryanef, S., & Fatmariza, F. (2024). Hambatan Guru dalam Pelaksanaan Asesmen Diagnostik pada Pembelajaran PPKn Berdasarkan Kurikulum Merdeka. *Journal of Education, Cultural and Politics*, 4(2), 333–345. <https://doi.org/10.24036/jecco.v4i2.498>

- O'Leary, M. (2020). *Classroom Observation: A Guide to the Effective Observation of Teaching and Learning*. Taylor & Francis.
- Pratiwi, V. D., & Wuryandani, W. (2020). Effect of Problem Based Learning (PBL) Models on Motivation and Learning Outcomes in Learning Civic Education. *JPI (Jurnal Pendidikan Indonesia)*, 9(3), 401. <https://doi.org/10.23887/jpi-undiksha.v9i3.21565>
- Putri, W., Aisah, S., & Rabiatal Adawiyah, Y. (2023). Peningkatan Hasil Belajar Siswa Melalui Model Pembelajaran Picture and Picture Pada Mata Pelajaran PPKN Kelas III di MI Al-Munawaroh Bogor. *Edukasi: Jurnal Penelitian Dan Artikel Pendidikan*, 15(1), 13–26. <https://doi.org/10.31603/edukasi.v15i1.9080>
- Santos Meneses, L. F. (2020). Critical thinking perspectives across contexts and curricula: Dominant, neglected, and complementing dimensions. *Thinking Skills and Creativity*, 35, 106. <https://doi.org/10.1016/j.tsc.2019.100610>
- Sayekti, P. P. (2022). Implementasi Model Pembelajaran Kooperatif Tipe Picture And Picture Untuk Meningkatkan Hasil Belajar PKN. *EduStream: Jurnal Pendidikan Dasar*, 6(1), 43–55. <https://doi.org/10.26740/eds.v6n1.p43-55>.
- Solihatin, E. (2022). *Strategi pembelajaran PPKN*. Bumi Aksara.
- Suttriso, S., & Pratiwi, D. N. I. (2023). Peningkatan Hasil Belajar PPKN Melalui Model Pembelajaran Kooperatif Tipe Student Team Achievement Division Plus di Madrasah Ibtidaiyah. *SITTAH: Journal of Primary Education*, 4(1), 1–12. <https://doi.org/10.30762/sittah.v4i1.550>
- Zhou, H. (2025). Exploring the dynamic teaching-learning relationship in interactive learning environments. *Interactive Learning Environments*, 1–31. <https://doi.org/10.1080/10494820.2025.2462149>.