



# The Effectiveness of MOCA Learning Media on Fourth Grade Pancasila Education Outcomes

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**Abstract:** *This research aims to examine the effectiveness of MOCA (Pancasila Monopoly) learning media based on Contextual Teaching and Learning (CTL) on the Pancasila Education learning outcomes of fourth-grade elementary school students regarding Pancasila symbols and the application of Pancasila principles. This quantitative research employed a pre-experimental design with a one-group pretest-posttest design. The results indicated an improvement in learning outcomes, evident from the average pretest score of 68.75 and posttest score of 80.63, with a difference of 11.88. The paired sample t-test yielded sig.  $p < 0.05$  ( $p = 0.000$ ), indicating a significant influence of using MOCA (Pancasila Monopoly) learning media based on Contextual Teaching and Learning on the Pancasila Education learning outcomes of fourth-grade students at SDN Jatinegara Kaum 03 Pagi. Additionally, the N-Gain percentage test revealed an average improvement of 35% between pretest and posttest scores, categorized as moderate effectiveness.*

**Keywords:** Effectiveness, Learning Media, Learning Outcomes, Pancasila Education, One-group pretest posttest design.

## Introduction

The rapidly changing times demand that humans be more responsive to widespread information as an effort to face the challenges of the 21st century. The 21st-century learning system requires students to be more active in teaching and learning activities (student-centered learning). In line with this, the government has implemented an education system oriented toward 21st-century skills through character education and literacy strengthening to produce productive, innovative, and affective future generations. Character development of students in schools is integrated into Pancasila Education subject matter. This aligns with the learning objectives of Pancasila Education. Pancasila needs to be instilled in the nation's future generations starting from elementary school. Elementary school students possess logical and concrete thinking patterns, making them capable of receiving instruction about Pancasila. Learning must be conducted gradually using enjoyable methods and media to attract students' attention in studying Pancasila material. However, it remains largely unknown how to effectively integrate 21st-century digital literacy with these character-building goals in a practical classroom setting. A significant problem remains unsolved: educators currently lack access to validated, interactive media that specifically translate these abstract Pancasila values into concrete, engaging formats for elementary learners.

According to Susanto, P. C., et al. (2024), learning outcomes are defined as the specific abilities and competencies children acquire upon completing instructional activities. Student learning outcomes encompass all abilities students possess from the learning process that has been conducted in the cognitive, affective, and psychomotor domains. Learning outcomes can serve as a reference for the

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extent of students' mastery of the material studied. Quality learning is successful when viewed from the process aspect, specifically when all or most students are actively involved physically, mentally, and socially in the learning process. Meanwhile, from the outcome aspect, learning is effective when positive behavioral changes occur and learning outcomes are achieved as established.

However, field observations indicate that several problems persist in the implementation of Pancasila Education learning. This is evidenced by observations conducted by Kartika, N. K. D., & Putra, M. (2021), showing that students tend to be passive and lack curiosity. Furthermore, teachers use lecture and assignment methods, resulting in students lacking motivation to participate in learning activities. Other problems were also found by Darmawan, R., et al. (2022), indicating that Civics Education learning remains teacher-centered and students do not focus their attention. Student learning outcomes have not met the minimum completeness criteria, with a class average of 63.57. Twelve students achieved results meeting the minimum completeness criterion of 80, while 16 students did not meet it. Rimawati, I., et al. (2023) conducted a pretest to determine students' understanding of applying Pancasila values in daily life. The pretest results revealed that many students did not yet understand the material on applying Pancasila values in daily life correctly, and some students appeared unenthusiastic and uninterested during learning. This is evidenced by the average student pretest score of 73.71, with the highest score of 88 obtained by 4 out of 28 students.

Based on the problems occurring in the field, it can be identified that teachers play an important role in managing learning to create an engaging learning atmosphere so that established learning objectives can be achieved. Teachers must be able to select appropriate teaching methods and learning media. The use of learning media greatly assists the teaching and learning process. According to the Association for Educational Communications and Technology (AECT), learning media is anything used to convey messages or information from sender to receiver to stimulate students' thoughts, feelings, attention, interests, and willingness. There are various types of learning media, one of which is in the form of games. Games in learning are relatively popular and enjoyable in learning activities. Games also provide real experiences and can help students enhance their cognitive abilities.

Previous research was conducted by Annasri, M. A. (2022) entitled "Development of MOCA (Pancasila Monopoly) Game Learning Media Based on Contextual Teaching and Learning for Fourth-Grade Elementary School Civics Education Content." This monopoly media was modified from the conventional monopoly game. It contains no economic elements but integrates Pancasila material into the monopoly game to facilitate students' understanding of the meaning of symbols and the application of Pancasila values in daily life. The development results received a highly suitable category for use in learning activities.

Akbar Safaat, A., & Fatih, M. (2023) also conducted similar research entitled "Development of Monopoly Media for Pancasila Material Theme of Pancasila Symbols in Second-Grade Students of SD Lab UNU Srengat Blitar." The monopoly media used in Civics Education learning received excellent criteria as it enabled all students to achieve and exceed the school-established minimum completeness criterion of 75 points. The percentage comparison of student learning outcomes, which previously was only 54%, increased to 87%.

Research was also conducted by Nurdiani, A., Gawise, G., & Kamarudin, K. (2023) entitled "Improving Civics Learning Outcomes Using Monopoly Media in Fourth-Grade Students of SD Negeri 54 Buton." This research used the Classroom Action Research (CAR) method conducted in two cycles. The research results showed an increase in learning outcomes from pre-action at 31%, Cycle I at 63%, and Cycle II at 94%.

Monopoly is one of the games that can be used as a learning medium. Monopoly can be utilized for the concept of learning while playing because this game is relatively popular and easy to use, thus increasing students' interest in the learning process. Sadiman (2006) stated that monopoly learning media is employed because it has six advantages: (1) games are enjoyable activities and entertaining, (2) games allow active participation from students in learning, (3) games can provide immediate feedback, (4) games enable the application of concepts or roles to actual situations and roles in society, (5) games are interesting, and (6) games can be easily created and reproduced.

Pancasila Monopoly learning media applies the Contextual Teaching and Learning concept, which connects learning material with real-world situations. Johnson defines contextual learning as

learning that enables students to connect subject matter with real life to discover meaning. Contextual learning can expand students' personal context through new experiences that can stimulate the brain to find new meanings. There are seven stages of Contextual Teaching and Learning: Constructivism, Inquiry, Questioning, Learning Community, Modeling, Reflection, and Authentic Assessment.

The use of learning media needs to be adjusted to student characteristics. Cognitive expert Piaget states that elementary school age (7-11 years) falls within the concrete operational phase. In this phase, students can already use logic. At this stage, students learn to understand things logically using concrete objects as aids. Therefore, a logical learning process through concrete objects is required. Every child has different developmental phases. Elementary school-age students still need logical instruction with concrete concepts appropriate to their cognitive phase. Children can perform developmental tasks well when every aspect of development can develop maximally.

Considering several previous studies that demonstrate improvements in Civics Education learning outcomes on Pancasila material after using monopoly learning media, the researcher is interested in testing the effectiveness of using MOCA (Pancasila Monopoly) learning media based on Contextual Teaching and Learning (CTL) for Pancasila Education content on symbols and application of Pancasila principles in fourth-grade elementary school. The researcher aims to identify differences in students' Civics Education learning outcomes before and after using CTL-based monopoly learning media.

**Method**

The research method employed in this study is quantitative experimental research. This pre-experimental quantitative research uses a one-group pretest-posttest design model . This experiment is conducted on a single group without a comparison or control group. The research stages consist of a pretest, treatment, and posttest. The pretest stage is conducted to examine the sample's initial condition before receiving treatment, specifically the fourth-grade students' Pancasila Education learning outcomes prior to using the MOCA (Pancasila Monopoly) learning media. Subsequently, the teacher administers the treatment by integrating the MOCA media into the Pancasila Education learning process. Finally, a posttest is conducted to examine differences in learning outcomes compared to the initial condition. However, it is important to acknowledge the inherent limitations of this pre-experimental design. A primary weakness is the lack of a control group, which makes the study susceptible to threats to internal validity. While changes in learning outcomes can be measured, the absence of a comparison group makes it difficult to definitively rule out extraneous variables that might have influenced the results. The research design is presented in the figure below.

**Table 1.** Pre-Experimental Pretest-Posttest Design Model

Pre-Test	Treatment	Post-Test
O <sub>1</sub>	X	O <sub>2</sub>

Description:

O<sub>1</sub>: Pretest score before receiving treatment

X: Treatment using monopoly learning media in the learning process

O<sub>2</sub>: Posttest score after receiving treatment

The research population consists of elementary school students in the Pulo Gadung District area. There are 65 elementary schools comprising State Elementary Schools (SDN) and Private Elementary Schools (SDS). However, considering the pre-experimental nature of this study, a broad random sampling was not employed. Instead, the research utilized a convenience sampling technique (or purposive sampling) to select a single intact class. Consequently, the sample consists of exactly 32 fourth-grade students from one specific State Elementary School (SDN) in the district, chosen based on school accessibility and the specific need for civic learning media development.

The target population of this research encompasses all fourth-grade students of State Elementary Schools (SDN) in Pulo Gadung District. The sampling technique employs cluster random sampling, a regional sampling technique used to determine the research sample with very broad objects or sources. Sample determination is conducted randomly through a lottery system to select schools located in the area.

Data collection techniques can be performed through several methods, one of which is testing. Tests are administered to all predetermined samples with identical test treatments, namely pretest and posttest. The pretest is used to assess students' abilities regarding material studied in the Pancasila Education learning process, while the posttest is used to measure students' abilities after receiving treatment using Pancasila Monopoly learning media.

The data analysis techniques employed include data normality tests. The data normality test uses the Kolmogorov-Smirnov test with the criterion that data is normally distributed if a significance value  $\geq 0.05$  is obtained, whereas data is not normally distributed if the significance value is  $\leq 0.05$ . This research uses the F-test with the following formula.

Variance formula:

$$F_{\text{calculated}} = \frac{\text{largest variance}}{\text{smallest variance}}$$

Decision-making criterion:

If  $F_{\text{calculated}} < F_{\text{table}}$ , then  $H_0$  is accepted, and if  $F_{\text{calculated}} > F_{\text{table}}$ , then  $H_0$  is rejected at a significance level of  $\alpha = 0.05$ .

Subsequently, hypothesis testing is conducted after fulfilling prerequisite tests using the Paired Sample T-test to examine the effectiveness of CTL-based Pancasila Monopoly media on fourth-grade students' Pancasila Education learning outcomes. Then, an N-Gain test is performed to determine the strength of effectiveness of implementing MOCA (Pancasila Monopoly) learning media in the learning process. The improvement in average pretest and posttest scores uses the normalized average gain formula, which represents the ratio of actual average gain to maximum average gain. The actual average N-Gain is the difference between the average posttest score and the average pretest score. The normalized gain formula is commonly referred to as the Hake factor.

$$g = \frac{S_{\text{posttest}} - S_{\text{pretest}}}{100\% - S_{\text{pretest}}}$$

Description:

g: Normally gain score value

Spretest: Pretest score

Sposttest: Posttest score

The following table presents the N-Gain score assessment:

N-Gain Score Assessment Criteria

$$g = \frac{S_{\text{post}} - S_{\text{pre}}}{100\% - S_{\text{pretest}}}$$

Description:

g: nilai gain skor ternormalisasi

S(pretest): Skor pretest

S(posttest) : Skor posttest

The following table presents the N-Gain score assessment:

**Table 2.** N-Gain Score Assessment Criteria

Range	Category
$g > 0,7$	High

Range	Category
$0,3 < g < 0,7$	Medium
$g < 0,3$	Low

## Results and Discussion

The researcher conducted the study in the fourth grade of SDN Jatinegara Kaum 03 Pagi with a total of 32 students consisting of 14 male students and 18 female students. The data obtained from this research are quantitative data. Quantitative data processing was performed using Microsoft Excel 365 software. In this study, data were collected using a test instrument in the form of multiple-choice questions. Previously, the test instrument underwent validation and reliability testing. Of the 30 test items, 25 items were declared valid and 5 items were declared invalid. The reliability test results obtained a value of 0.80, categorized as high reliability.

The researcher administered a pretest before the intervention and a posttest after the intervention using MOCA (Pancasila Monopoly) learning media based on Contextual Teaching and Learning. The pretest and posttest results indicated an improvement in outcomes with a score difference of 11.88. The following presents the data on students' Pancasila Education learning outcomes.

**Table 3.** Data Students' Pancasila Education Learning Outcomes

Information	Learning Outcomes	
	Pretest	Posttest
Number of data	32	32
Highest score	92	96
Lowest score	28	52
Total	2200	2580
Average	68,75	80,63

From the average score results, an average N-Gain value of 0.35 was obtained, which falls into the moderate category. There were 4 students with scores in the high category, 15 students in the moderate category, and 13 students in the low category. This demonstrates that the use of MOCA (Pancasila Monopoly) learning media is effective in improving Pancasila Education learning outcomes on the material of symbols and application of Pancasila principles. While previous studies have widely proven the general effectiveness of game-based learning, the distinct novelty of MOCA lies in its successful integration of Contextual Teaching and Learning (CTL) into a board game format. These results indicate an improvement not just in cognitive recall, but in the students' practical ability to analyze and apply abstract Pancasila values to real-world scenarios – a specific gap that conventional civic media often fail to address

The results of hypothesis testing using the paired sample t-test revealed a significant value of  $p < 0.05$  or  $0.00 < 0.05$ . This means that  $H_0$  is rejected and  $H_1$  is accepted. This indicates that there is a significant influence of using MOCA (Pancasila Monopoly) learning media on Pancasila Education learning outcomes regarding the material on symbols and application of Pancasila principles

## Conclusion

Based on the research results and discussion in class IVA of SDN Jatinegara Kaum 03 Pagi, Pulo Gadung District, which examined the effectiveness of using MOCA (Pancasila Monopoly) learning media on Pancasila Education learning outcomes, it can be concluded that the use of MOCA (Pancasila Monopoly) learning media influences students' Pancasila Education learning outcomes. Student learning outcomes after using MOCA (Pancasila Monopoly) learning media obtained an average posttest score of 80.63, which is higher compared to before the intervention with an average pretest score of 68.75. This is also demonstrated by the paired sample t-test results, which obtained a significance value of  $p < 0.05$  with a value of  $0.00 < 0.05$ ; therefore, it can be concluded that  $H_0$  is rejected and  $H_1$  is accepted. This explanation proves that there is a significant influence of using MOCA

(Pancasila Monopoly) learning media on the Pancasila Education learning outcomes of fourth-grade elementary school students.

Furthermore, the use of MOCA (Pancasila Monopoly) learning media is declared effective on students' learning outcomes in the cognitive aspect. This can be observed from the average N-Gain value of 0.34 in the moderate category. Thus, it is concluded that the use of MOCA (Pancasila Monopoly) learning media is effective on the Pancasila Education learning outcomes of students in class IVA of SDN Jatinegara Kaum 03 Pagi.

## References

- Annasri, M. A. (2022). *Pengembangan Medi Pembelajaran Permainan MOCA (Monopoli Pancasila) Berbasis Contextual Teaching and Learning pada Muatan PPKn Kelas IV Sekolah Dasar*. Jakarta: UNJ
- Darmawan, R., Hariyatmi, H., & Supriyanto, S. (2022). 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), 24.
- Kartika, N. K. D., & Putra, M. (2021). Media Permainan Monopoli Pada Muatan PPKn Siswa Kelas IV Sekolah Dasar. *Jurnal Penelitian dan Pengembangan Pendidikan*, 5(1).
- Nurdiani, A., Gawise, G., & Kamarudin, K. (2023). Meningkatkan Hasil Belajar PPKn Menggunakan Media Monopoli pada Siswa Kelas IV SD Negeri 54 Buton. *Penuh Asa: Jurnal Mahasiswa Pendidikan Guru Sekolah Dasar*, 1(2), 176-177.
- Rimawati, I., Ritiauw, S. P., & Johannes, N. Y. (2023). Pengaruh Penggunaan Media Permainan Monopoli Terhadap Hasil Belajar Siswa Pada Mata Pelajaran PPKn Siswa Kelas V SD Negeri 19 Ambon. *PEDAGOGIKA: Jurnal Pedagogik dan Dinamika Pendidikan*, 11(2), 295.
- Safaat, A., & Fatih, M. (2023). Pengembangan Media Monopoli Materi Pancasila Tema Lambang Pancasila Pada Siswa Kelas 2 SD Lab Unu Srengat Blitar. *Pendas: Jurnal Ilmiah Pendidikan Dasar*, 8(2), 4906-4907.
- Sadiman, A. S., et al. (2006). *Media Pendidikan: Pengertian, Pengembangan, dan Pemanfaatannya*. Jakarta: PT. Rajagrafindo Persada
- Susanto, P. C., Arini, D. U., Yuntina, L., Soehaditama, J. P., & Nuraeni, N. (2024). Konsep Penelitian Kuantitatif: Populasi, Sampel, dan Analisis Data (Sebuah Tinjauan Pustaka). *Jurnal Ilmu Multidisiplin*, 3(1), 3.