

Doraemon's Magic Pocket Media as an Effort to Improve Critical Thinking in Elementary School

Shoimah Rahmawati¹, Kristi Wardhani², Indaryati^{3*}

¹⁻²*Universitas Sarjanawiyata Tamansiswa, Indonesia*

³*Ngupasan Public Elementary School, Indonesia*

*Corresponding Author e-mail: imah12763@gmail.com

1. Abstract

This study aims to improve critical thinking skills in relation to state symbolic material through the use of the Doraemon's magic pouch media in the class III in Yogyakarta. This type of research is collaborative classroom action research (PTKK) with two cycles. The subjects of this study were 19 students in the class III. Data collection was done using tests and non-tests. Descriptive questions, interviews, and observations were used as research instruments. Quantitative descriptive analysis was used for data analysis. The results showed that the use of the Doraemon's magic pouch media was able to improve the critical thinking skills of the class III in relation to state symbolic material. This can be evidenced by the increase in learners' critical thinking skills from the baseline average of learners' critical thinking skills, 30.5 (non-critical) to 48.7 (fairly critical) in the final condition. The increase also occurred in student learning outcomes, which also experienced an increase from the initial condition (pre-cycle), namely 65.8 with a completeness level of 15.8%, in cycle I, namely 70.9 with a completeness level of 47.4%, and in cycle II to 80.4 with a completeness level of 84.2%.

Keywords: *critical thinking skills, state symbol materials, doraemon's magic pocket media*

2. Introduction

The father of Indonesian education, Ki Hadjar Dewantara, defines the meaning of education as follows: "Education is a guide for the life and development of children. This

means that education directs all the natural forces that exist in children so that they can achieve the highest level of security and happiness as human beings and as members of society." Education is a process of humanism, hereafter referred to as humanization of man. (Pristiwanti, 2022). According to (Nasution F., 2022), education is a human endeavor to develop personality according to the values of society, or an endeavor to help students develop and improve knowledge, skills, values, attitudes, and behaviors useful for life. Education is the humanization of young people. Education does not eliminate the dignity and worth of human beings, but develops and improves the quality, essence and dignity of human beings. Education is very important, as stated in the introductory paragraph 4 of the 1945 Constitution, namely for the spiritual life of the nation. The education system in Indonesia is not completely evenly distributed. This is the biggest challenge for teachers to create a learning process that balances education with the use of technology and learning media. Education must be in harmony with the development of nature and time. Education is a guide for teachers who strive to improve the quality of education. In the "*Trilogi Kepemimpinan*", namely "*Ing Ngarsa Sung Tuladha, Ing Madya Mangun Karso, Tut Wuri Handayani*", teachers play a very important role in increasing the intelligence of the nation's children by implementing the "*Trilogi Kepemimpinan*"

Improving the quality of education can be achieved by implementing learning by adapting to the characteristics and needs of students. To change the implementation of education in Indonesia, the independent curriculum was introduced to replace the 2013 curriculum, that uses the teachings of Ki Hadjar Dewantara with the "freedom to learn". In the independent curriculum, there is a "Pancasila Pupil Profile" which concerns the introduction of the state symbol "Garuda Pancasila". The Pancasila Pupil Profile is designed

to familiarize Indonesian children with the state symbol and its application in everyday life, as the content of P5 is almost identical to the meaning of the Pancasila precepts. The stand-alone curriculum provides for student-centered learning where critical thinking is emphasized and learning activities involve the full activity of the students. The teacher is only a guide, facilitator and motivator who supports the student learning process.

Pancasila and civic education are a very important part of teaching in elementary school. Pancasila and civic education (PPKn) in SD /MI has a very important position in the effort to prepare students to become reliable people (desirable personal qualities). Therefore, civics lessons in SD /MI can make students good, intelligent, capable, and strong character based on the values of Pancasila and the 1945 Constitution (Lubis, Maulana Arafat, 2020). Civics education is ideally a fun class that actively engages students in learning activities. Teachers must use innovative learning methods by using interesting media to support learning activities. By using media in learning, it is hoped to increase student activity through discovery and construction of their knowledge. Therefore, the use of innovative learning models and interactive and interesting media is very important.

According to (Lilis, 2019), critical thinking is an intellectual process of apprehending, applying, synthesizing, and evaluating information obtained through observation, experience, reflection, reasoning, or communication as the basis for beliefs and actions. In (Saputra, 2020), critical thinking involves mental activities related to solving problems, analyzing assumptions, reasoning, evaluating, conducting investigations, and making decisions. Critical thinking skills are students' ability to analyze and evaluate a problem that arises from their own decisions. One of the goals of 21st century education is to develop students' critical thinking skills. Learning through active participation in learning, both

physical, mental and social. To realize this learning, the teacher plays an important role in designing the learning process and in developing the role of the media that support the learning process. The teacher's role is to guide, encourage, and motivate students to take action and develop their critical thinking skills. Enjoyment of learning and the ability to encourage students to think critically help in the development of student.

Based on observations of class III teaching and learning activities at an elementary school in Yogyakarta and interviews with teachers, it was shown that not all students could actively participate in learning, only a few students were always actively involved in learning. Students are still lacking in concentration and still feel confused in understanding the learning material presented. Some of these things are because teachers have not used learning media in the learning process. The learning process takes place students just sit listen, write and working on practice questions.

This shows that students do not understand the learning material. As a result, student learning outcomes are still low. This is where teachers need media to help the learning process. Particularly in the PPKn subject matter "State Symbol" which requires mastery of the concept and parts of "State Symbol". Interactive and fun learning media are needed by teachers and students in the learning process. The use of media is expected to affect the value.

According to (Batubara, 2020) learning media are all forms of objects and tools used to support the learning process. One of the media that is considered suitable to be applied in grade III is Doraemon's magic pocket media because this media is taken from one of the fun children's cartoon characters named Doraemon who has a magic pocket in his stomach. Doraemon in this learning media is located in his pocket which can be used as a

medium for taking pictures related to the "Country Symbol". Learning to use Doraemon's magic pocket media will provide a direct student experience and instill the concept of "Country Symbol" material. This Doraemon pocket media is a learning medium to help students learn concepts (Astuti, E. W., Afifah, N., & Rouzi, K. S., 2021).

Facing 21st-century learning, teachers must be creative and innovative to create interactive and meaningful learning. Given the importance of using media in helping students' understanding, in this classroom action research, the author uses the role of Doraemon's magic pocket media as a learning medium. The media and learning model used aim to assist students in understanding the material "Country Symbols" and develop their ability to solve problems. Problem-based learning will encourage students to develop their skills in critical thinking. Doraemon's Magic Pocket media is taken from a fun children's cartoon. With the hope that students will enjoy participating in learning by applying Doraemon's Magic Pocket media in the learning process. Media that is interesting, fun, and by the characteristics of children will support students happy and actively involved in learning.

Based on the description above that the importance of using media in learning can help students to develop their understanding and critical thinking skills, the researcher made a class action research with the title "DORAEMON'S MAGIC POCKET MEDIA AS AN EFFORT TO IMPROVE CRITICAL THINKING SKILLS STATE SYMBOL MATERIALS IN ELEMENTARY SCHOOLS".

3. Methods

3.1. Participants and context

The research method used is to use collaborative classroom action research

methods. In (Azizah A., 2021) classroom action research can be defined as a form of scientific and methodical study or activity carried out by teachers/researchers in the classroom using actions to improve learning processes and results. In (Sitorus, 2021) Classroom Action Research is a part of scientific research specifically designed to improve the quality of learning practices in changing classrooms. This study aims to present collaboration-based classroom action research with a focus on procedures, implementation, and report writing. This research was conducted in an elementary school in Yogyakarta. The object of this study is students' critical thinking skills. The subjects of this study were 19 grade III students consisting of 9 girls and 10 boys.

3.2. Material

In Collaborative Classroom Action Research (PTKK) there are several cycles. In research planning, there are 2 cycles, namely cycle I and cycle II. Each cycle consists of 2 meetings. In cycle I, from the problems obtained, action planning I, action I implementation, and observation and reflection I are carried out. Then, in cycle II there are several processes of new problems resulting from reflection I, namely action planning II, implementation of action II, observation II, and reflection II. In (Susilo H., Chotimah H., and Sari Y.D., 2022) the Kemmis & Taggart model is sets or strands with one device consisting of four components, namely planning, action, observation, and reflection. Instruments used in the form of observation, interviews, and evaluation.

3.3. Data Collection and analysis

The data analysis technique used by researchers in Collaborative Classroom Action Research is a quantitative descriptive analysis technique. Instruments in this research are

observation, interview, and evaluation. Data collection techniques used are tests and non-tests. The data obtained is the result of the test, which is a matter of description. While the data was obtained from non-test results, namely interviews and observation sheets. The data obtained in cycle I and cycle II were analyzed and then compared.

4. Results and Discussion

4.1. Results

The application of Doraemon's magic pocket media in civic education learning about the state symbol is adapted from a children's cartoon film entitled Doraemon. Doraemon has a magic pouch in his stomach that can take out various kinds of objects he wants. In this study, the researcher used Doraemon media as a supporting medium for the learning process.

Based on the results of observations and interviews conducted, information was obtained that learning did not support critical thinking skills, only a few students were active in the learning process, and teachers had not used media in their learning. Most of them still use the lecture method and give questions.

Critical Thinking Skills

Table 1. Data on the results of the Critical Thinking Ability Questionnaire of Students in Initial Conditions and Final Conditions

No	Indicator	Initial Conditions		Final Condition	
		Scores (Criteria)	Σcritical Students (Percentage)	Scores (Criteria)	Σcritical Students (Percentage)
1.	Able to analyze national symbols	35,5 (Pretty critical)	10 Students (52,63 %)	59,2 (Pretty critical)	17 Students (89,47 %)
2.	Able to ask	28,9 (No critical)	9 Students (47,36%)	52,6 (Pretty critical)	15 Students (78,95 %)
3.	Able to answer questions	28,9 (No critical)	8 Students (42,11 %)	42,1 (Pretty critical)	13 Students (68,42)
4.	Able to solve problems	32,9 (No critical)	11 Students (57,89 %)	47,4 (Pretty critical)	14 Students (73,68 %)
5.	Able to draw conclusions	28,9 (No critical)	9 Students (47,36 %)	44,7 (Pretty critical)	13 Students (68,42 %)
6.	Able to evaluate	27,6 (No critical)	9 Students (47,36 %)	46,1 (Pretty critical)	15 Students (79 %)
Average		30,5 (No critical)	9 Students (40,1 %)	48,7 (Pretty critical)	15 Students (64,1 %)

From Table 1, students' critical thinking skills in the initial conditions on indicators 2, 3, 5, and 6 fall into the non-critical criteria. The percentage of students who are at least

critical enough on indicators 2, 3, 5, and 6 is below 50%. From the results of the final questionnaire in cycle II, it can be seen that students' critical thinking skills in indicators 1 to 6 fall into the criteria of being quite critical. The percentage of students who are at least critical enough on indicators 1 to 6 is above 50%.

Table 2. Observation Data on Critical Thinking Skills Cycle I and Cycle II

No.	Indicator	Cycle I	Cycle II
		Average value	Average value
1.	Able to analyze national symbols	66,7	80
2.	Able to ask	62,7	78,3
3.	Able to answer questions	72,7	85,3
4.	Able to solve problems	68,7	80,5
5.	Able to draw conclusions	73,3	85,7
6.	Able to evaluate	68,7	80
7.	Overall Value	412,8	490
	Average value	68,8	81,63

Based on table 2, the students' critical thinking skills in cycle I as a whole get an average score of 68.8 (quite critical). While the critical thinking skills of students in cycle II as a whole, when viewed from the results of critical thinking skills, obtained an average value of 81.63 (critical).

Table 3. Pre-Cycle Value Result Data, Cycle I Evaluation and Cycle II Evaluation

No.	Indicator	Pre-Cycle	Cycle I	Cycle II
		Scores		
1.	the number of students	19 Students	19 Students	19 Siswa
2.	value amount	1250	1348	1527
3.	Average	65,8	70,9	80,4
4.	The highest score	77	80	93
5.	Lowest value	53	63	70
6.	Percentage of students complete	15,8 %	47,4 %	84,2 %
7.	Percentage of students incomplete	84,2 %	52,6 %	15,8 %

In Table 3, the initial conditions for learning outcomes are shown from the results of the pre-cycle scores which are still low and the average is below the set KKM, which is 75. The pre-cycle average score is 65.8. Then in the evaluation of cycle 1 of the total number of students as many as 19 students, the average value obtained by students is 70.9. There were 9 students out of 19 students (47.4%) who scored above the KKM and 10 students (52.6%) who scored below the KKM. And in the evaluation of cycle II, from a total of 19 students, the average score obtained by students was 80.4. There were 16 students out of 19 students (84.2%) who scored above the KKM and 3 students (15.8%) who scored below the KKM.

Critical Thinking Ability Graph

Figure 1 is a graph showing a comparison of the percentage of students' critical thinking abilities in the initial and final conditions as measured by means of a questionnaire.

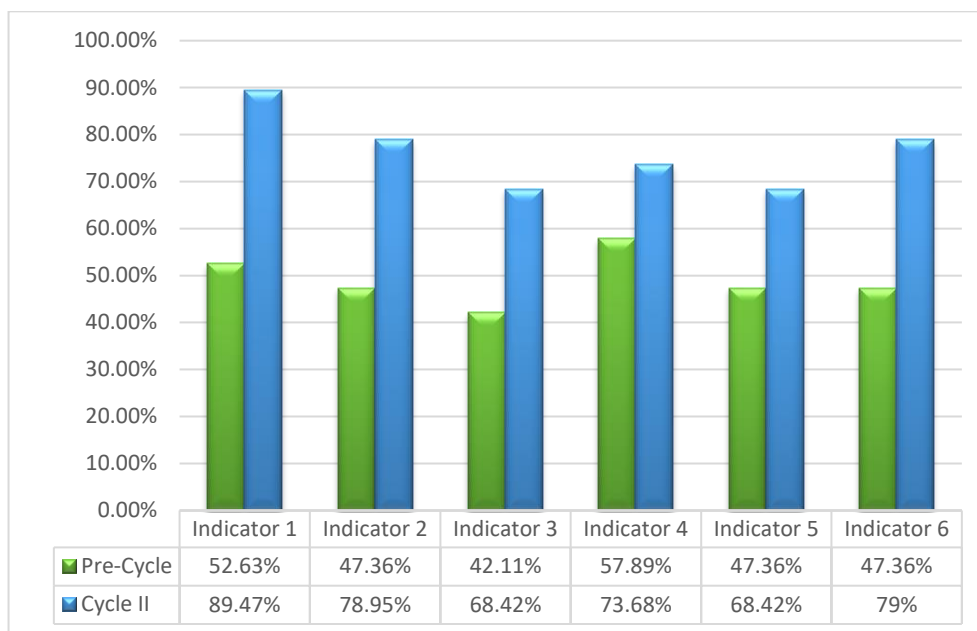


Figure 1. Percentage of Critical Students

The initial condition in the first indicator obtained a percentage of 52.63% and the final condition in cycle II obtained a percentage of 89.47%. Furthermore, the initial condition on the second indicator obtained a percentage of 47.36% and the final condition in cycle II obtained a percentage of 78.95%. The initial condition in the third indicator obtained a percentage of 42.11% and the final condition in cycle II obtained a percentage of 68.42%. The initial condition on the fourth indicator obtained a percentage of 57.89% and the final condition in cycle II obtained a percentage of 73.68%. The initial condition on the fifth indicator obtained a percentage of 47.36% and the final condition in cycle II obtained a percentage of 68.42%. And the initial conditions on the sixth indicator obtained a percentage of 47.36% and the final conditions in cycle II obtained a percentage of 79%.

The results of observations of critical thinking skills carried out to strengthen the

results of the critical thinking skills questionnaire are presented in Figure 2 below:

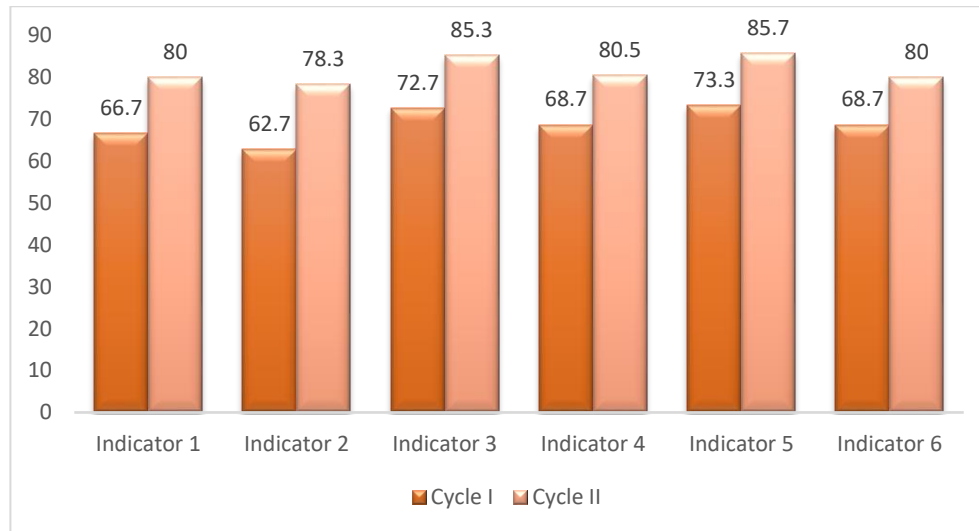


Figure 2. Observation of Students' Critical Thinking Ability

Cycle I on the first indicator obtained a score of 66.7 while cycle II obtained a score of 80. Cycle I on the second indicator obtained a score of 62.7 while cycle II obtained a score of 78.3. Cycle I on the third indicator obtained a score of 72.7 while cycle II obtained a score of 85.3. Cycle I on the fourth indicator obtained a score of 68.7 while cycle II obtained a score of 80.5. Cycle I on the fifth indicator obtained a score of 73.5 while cycle II obtained a score of 85.7. And cycle I on the sixth indicator got a score of 68.7 while cycle II got a score of 80.

Learning Outcomes Graph

Figure 3 is a graph containing research results, namely the average student learning outcomes from the initial conditions, evaluation of cycle I, and evaluation of cycle II.

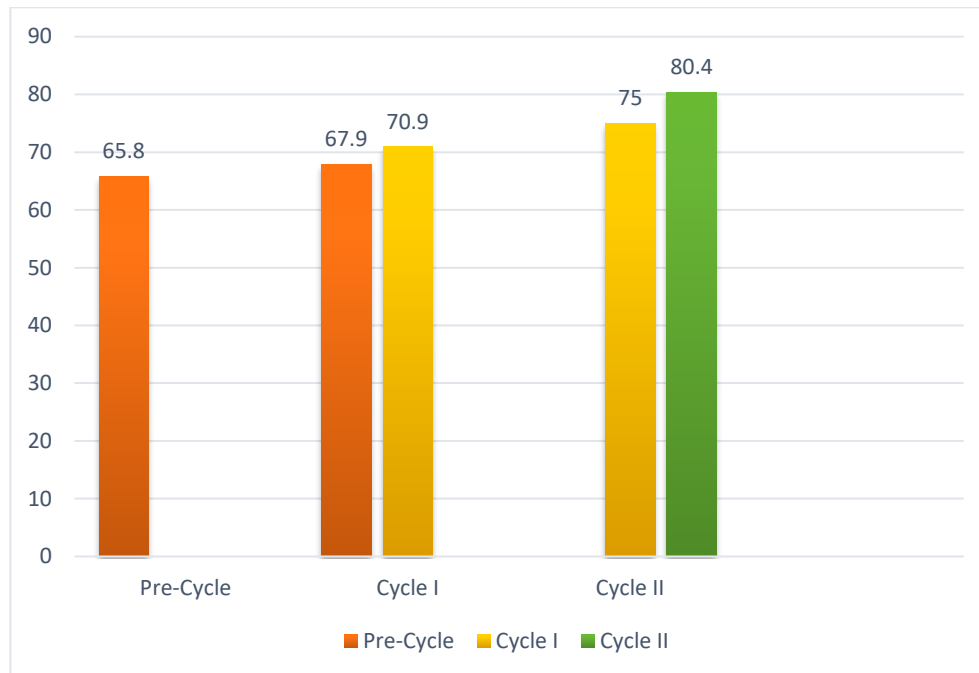


Figure 3. Average Learning Outcomes

The initial condition of learning outcomes obtained an average of 65.8. The average target of cycle I was 67.9 while the average achievement of learning outcomes in the evaluation of cycle I was 70.9. The average target for the evaluation of cycle II is 75 and the average achievement of learning outcomes in the evaluation of cycle II is 80.4

4.2. Discussion

In this study, the learning model of problem-based learning is used, which is conducted in 2 cycles of 2 sessions each. The learning components implemented are under the teaching modules used. In sessions 1-2, the researcher applies the steps of the problem-based learning model, namely orienting students to problems, organizing students

for learning in groups, guiding individual or group experiences, developing and presenting work, and analyzing and evaluating the problem-solving process. Application of the steps of the problem-based learning model is used in every lesson.

The improved critical thinking skills were determined by the results of the questionnaires in the initial and final phases and were reinforced by direct observation of the researcher. For the first indicator, there was an increase in criterion scores from 35.5 (fairly critical) to 59.2 (fairly critical). For the second indicator, the criterion score increased from 28.9 (not critical) to 52.6 (very critical). For the third indicator, there is an increase in criterion score from 28.9 (not critical) to 42.1 (very critical). For the fourth indicator, there is an increase in criterion score from 32.9 (very critical) to 47.4 (very critical). For the fifth indicator, there is an increase in the criterion from 28.9 (not critical) to 44.7 (very critical). And for the sixth indicator, there is an increase in the criterion from 27.6 (not critical) to 46.1 (very critical).

The increase in critical thinking skills is not only reflected in the score, but also in the percentage of critical students. For the first indicator, there was an increase from 52.63% (fairly critical) to 89.47% (critical). For the second indicator, there was an increase from 47.36% (fairly critical) to 78.95% (critical). For the third indicator, there was an increase from 42.11% (fairly critical) to 68.42% (critical). For the fourth indicator, there was an increase from 57.89% (fairly critical) to 73.68% (critical). For the fifth indicator, there was an increase from 47.36% (fairly critical) to 68.42% (critical). And for the sixth indicator, there was an increase from 47.36% (fairly critical) to 79.00% (critical)

The researchers also conducted observations to strengthen and improve critical thinking skills based on the results of the questionnaire. Observations were conducted in

two cycles of two sessions each. The first indicator increased from 66.7 (fairly critical) to 80 (critical). The second indicator increased from 62.7 (fairly critical) to 78.3 (critical). The third indicator increased from 72.7 (critical) to 85.3 (critical). The fourth indicator increased from 68.7 (fairly critical) to 80.5 (critical). The fifth indicator increased from 73m3 (critical) to 85.7 (critical). And the sixth indicator increased from 68.7 (fairly critical) to 80 (critical).

The student learning outcomes identified in each assessment increased on average from baseline conditions with an average of 65.8 to 70.9 in Cycle I and then further from Cycle I, namely from 70.9 to 80.4 in Cycle II. In addition to the class average, there is also an improvement in the percentage of CCM who meet the specified target. This can be seen by the fact that the percentage of completeness under baseline conditions (pretest) increased from 15.8% to 47.4% in Cycle I, and the percentage in Cycle II increased to 84.2%, which is a 36.80% increase over Cycle I.

In addition, the findings of this study were complemented by previous research (Febriliyanti, Edwiga Rika, 2018) which shows that the application of Doraemon's magic pocket media can improve teachers' skills, students' activity, and students' learning outcomes in terms of knowledge about the precepts and symbols of Pancasila Class I SDN Gabahan Semarang. And it is confirmed by the conducted research (Asriningtyas, A. N., et al, 2018) that using the model of problem-based learning can improve critical thinking skills and learning outcomes in solving problems in stories in mathematics class of grade 4 SD Negeri Suruh 01. This is evidenced by the increase in students' critical thinking skills from the initial performance (pre-cycle), namely 60.82 (non-critical) to 74.21 (fairly critical) at the end of the cycle II. Student learning outcomes also increased from baseline condition average learning outcomes of 61.85 in cycle I to 69 and in cycle II to 80. The percentage

of students who scored PPM increased from baseline of 44.84% to 69.44% in assessment cycle I and 88.89% in assessment cycle II.

The researcher's observations showed that during the application of Doraemon's magic pocket media in the learning process, students' critical thinking skills increased significantly. The application of Doraemon's magic pocket media leads to a change in students' critical thinking skills from the initial state to the final state. An interesting learning process leads to students being motivated and more active in learning, frequently analyzing, asking questions, answering teacher's questions, and expressing their ideas and opinions. The learning process during the action is two-way, from students and teachers. Students play an active role in the learning process.

5. Conclusion

Based on the results of the research and discussion, the conclusions from this research are as follows:

The application of Doraemon's magic pocket media to National Emblem material can improve the critical thinking skills of class III. This is evidenced by the ability to think critically which has increased from the initial condition value of the average student's critical thinking ability, namely 30.5 (not critical) increased to 48.7 (quite critical) in the final condition. The average percentage of students who can think critically, namely 40.1%, increases to 64.1%. In addition, student learning outcomes also increased from the initial condition (pre-cycle), namely 65.8 with a percentage of 15.8% completeness, increased in cycle I, namely 70.9 with a percentage of 47.4% completeness, and increased in cycle II to 80.4 with a percentage of 84.2% completeness.

Based on the research that has been done, the researcher provides some

suggestions for students, teachers, schools, and further researchers as follows.

a. Student

- 1) Students are more active and can improve their critical thinking skills in every lesson, not only in learning Civics.
- 2) Students are increasingly increasing their interest and learning outcomes by learning to use Doraemon's magic pocket media.
- 3) Increasing cooperation and cohesiveness in group learning.

b. Teacher

- 1) The use of Doraemon's magic pocket media is expected to be used to support the next learning process.
- 2) Teachers can develop Doraemon magic pocket media, as learning media that can support the next learning process.
- 3) Teachers can combine the use of learning media that are varied and by students' learning needs that can attract students' interest in learning so that they can improve critical thinking skills.

c. School

Schools can apply learning media for Doraemon's magic pocket or other learning media to help the student learning process in the classroom because the role of learning media is very important to make students active in learning.

d. Further Researcher

In this research, there are limitations in developing Doraemon magic pocket media. With this, it is hoped that further researchers can redevelop the Pancasila and Citizenship Education learning materials using more varied learning media, to attract

students' ability to think critically. Besides that, future researchers can also develop the use of Doraemon's magic pocket media to be more interesting and fun.

References

- Aktoprak, A., Cigdem Hursen. (2022). A Bibliometric and Content Analysis of Critical Thinking in Primary Education. *Elsevier*, 101029.
- Asriningtyas, A. N., dkk. (2018). Penerapan Model Pembelajaran Problem Based Learning Untuk Meningkatkan Kemampuan Berpikir Kritis dan Hasil Belajar Matematika Siswa Kelas 4 SD. *JKPM*, Vol 5(1).
- Astuti, E. W., Afifah, N., & Rouzi, K. S. (2021). Nilai-Nilai Pendidikan Karakter Dalam Film Doraemon serta Relevansinya Dengan Psikologi Perkembangan Anak Usia Sekolah Dasar. *Ijeeti (Indonesian Journal of . . .)*, 1(1), hal 1-17.
- Azizah A., d. (2021). Pentingnya Penelitian Tindakan Kelas Bagi Guru Dalam Pembelajaran. *Jurnal Auladuna*, 2656-2657.
- Batubara, H. H. (2020). *Media Pembelajaran Efektif*. Semarang: Fatawa Publisng.
- Febriliyanti, Edwiga Rika. (2018). Penerapan Media Kantong Ajaib Doraemon Untuk Meningkatkan Kompetensi Mengenal Sila-Sila Dan Lambang Pancasila Pada Siswa SD Kelas I. *Jurnal Pendidikan Dasar: Jurnal Tunas Nusantara*, Vol 1(1), Hal 27-32.
- Herzon H., dkk. (2018). Pengaruh Problem-Based Learning (PBL) terhadap Keterampilan Berpikir Kritis. *Jurnal Pendidikan: Teori, Penelitian, dan Pengembangan*, Vol. 3(1), Hal 42-46.
- Lilis. (2019). *Berpikir Kritis dan PBL*. Surabaya: Media Sahabat Cendekia.
- Lubis, Maulana Arafat. (2020). *Pembelajaran Pendidikan Pancasila dan Kewarganegaraan (PPKn) di SD/MI*. Jakarta: Kencana.

- Nasution F., L. Y. (2022). Pengertian Pendidikan, Sistem Pendidikan Sekolah Luar Biasa, dan Jenis-Jenis Sekolah Luar Biasa. *Jurnal Edukasi Nonformal*, 2715-2634.
- Pristiwanti, D. B. (2022). Pengertian Pendidikan. *Jurnal Pendidikan dan Konseling*, 7911 - 7915.
- Saputra, H. (2020). *Kemampuan Berpikir Kritis Matematis*. Lampung: Perpustakaan IAI Agus Salim.
- Sitorus, S. (2021). Penelitian Tindakan Kelas Berbasis Kolaborasi (Analisis Prosedur, Implementasi dan Penulisan Laporan). *Journal of Islamic Early Childhood Education*, Vol. 1 (3) Hal. 2774 – 8065.
- Susilawati, E., dkk. (2020). Analisis Tingkat Keterampilan Berpikir Kritis Siswa SMA. *Jurnal Pendidikan Fisika dan Teknologi (JPFT)*, 6(1), Hal 11-16.
- Susilo H., Chotimah H., dan Sari Y.D. (2022). *Penelitian Tindakan Kelas Sebagai Sarana Pengembangan Keprofesionalan Guru dan Calon Guru*. Jawa Timur: Bayumedia Publishing.