

## THE INFLUENCE OF DORAEMON POCKET SMART BOARD MEDIA ON THE MATHEMATICAL UNDERSTANDING ABILITY OF CLASS II ELEMENTARY SCHOOL STUDENTS

Dina Pratiwi Dwi Santi<sup>1</sup>, Setiyani<sup>2</sup>, Neneng Laila<sup>3</sup>, Yayah Kodariyah<sup>4</sup>, Shanti  
Nurhidayah<sup>5</sup>

<sup>1,2,5</sup>Swadaya Gunung Jati University, Cirebon

<sup>3</sup>SDN Sadagori 1, Cirebon

<sup>4</sup>Dinas Pendidikan, Cirebon

\*Corresponding author: [dinapратиwi860@gmail.com](mailto:dinapратиwi860@gmail.com)

### Abstract

The research was motivated by the problem of teachers' lack of variety in using learning media. So that in the learning process students do not understand the learning material presented. Therefore, researchers chose learning using smart board learning media. The aim of this research is to determine the effect of using the Doraemon Pocket smart board learning media on mathematical understanding abilities. This research method uses a quantitative research type, pre-experimental design with one group pretest-posttest type. The sample used was 22 grade II elementary school students. The data collection instrument used a test to measure students' mathematical understanding abilities and a questionnaire to determine students' responses to mathematics learning using the Doraemon Pocket smart board learning media. Based on the results of the research conducted, it obtained a significance value of 0.016, less than 0.05, thus  $H_a$  was accepted and  $H_o$  was rejected, so it can be concluded that there is an influence of the Doraemon pocket smart board learning media on students' mathematical understanding abilities. This research is recommended due to the students' lack of mathematical understanding skills, particularly in multiplication and division material. One factor that affects students' mathematical understanding skills is the use of learning media.

**Keywords:** Learning Media, Mathematical, Smart Board, Understanding Ability.

### INTRODUCTION

Teaching and learning activities between teachers and students to achieve goals are said to be learning. As (Kosasih E, 2013) defines learning as an effort that deliberately involves and uses the professional knowledge possessed by teachers to make someone able to achieve curriculum goals. Learning is also a process of organizing, stimulating in order to grow and encourage students in following the teaching and learning process (Pane & Dasopang, 2017). No different from the definition of learning according to (R. Putri & Kasrman, 2022) is an effort to make students learn or an activity that teaches students.

Related to this, learning will be created if there are teachers, students, and goals achieved. Therefore, teachers and students should formulate goals that are achieved not only to achieve the benefits of the world, but vice versa in the end. According to (QS. Ash-Shura: 20) i.e. "Whoever desires profit in the Hereafter we will increase the profit to him, and whoever desires profit in the world we give him a portion of the profit of the world, and there is not for him any part in the Hereafter."

The ability to understand mathematics is one of the important goals in learning, namely providing an understanding that the material taught is not just memorized, but more than that, with understanding students can better understand the concept of the subject matter itself. According to (Santoso, 2017) mathematical understanding is one of the goals of every material presented by the teacher, because the teacher is the guide for students to achieve the expected concepts. In order for students to master mathematical understanding skills, a learning process must occur in which teachers and students are directly involved (Radiusman, 2020). Mathematical understanding is a very important ability for students to have in learning mathematics, this is because mathematical problems must be solved through an understanding process (Putra et al., 2018). Students are said to understand if they can remember and apply it in the form of examples. As Benjamin S. Bloom said, comprehension is a person's ability to understand or comprehend something after that something is known and remembered. In other words, understanding is understanding something and being able to see it from various aspects. Understanding mathematics is an important ability to develop other mathematical competencies in the learning process (Widyasari & Soptianingrum, 2019).

However, based on the results of the conditions when carrying out the Introduction to Schooling Field II (PLP II) activity at SDN Sadagori 1 Cirebon City, there were still many students who had difficulty understanding mathematics, caused by several factors including, learning media that had not been varied so that teachers in the learning process only used the lecture method then immediately gives questions, this makes students lack an understanding of the material presented by the teacher, seen from the unsatisfactory student learning outcomes. Based on research (Santoso, 2017) entitled "Using Contextual Learning Models to Improve Elementary School Students' Mathematical Understanding Abilities", students' failure to develop mathematical understanding skills is due to the learning carried out so far using classical teaching and learning strategies, namely classroom activities dominated by the teacher, so that efforts are made to choose methods, approaches, media, models and teaching techniques that are appropriate to the material to be taught.

Students who experience difficulty understanding mathematics are caused by several factors, including learning media that is not yet varied. This makes students lack an understanding of the material presented by the teacher, seen from the unsatisfactory student learning outcomes (Santoso, 2017). To simplify the process of teaching and learning activities so that students can improve their mathematical understanding skills, use the Doraemon pocket smart board learning media as shown in Figure 1 below.



**FIGURE 1.** *Smart Board Media*

The use of media or concrete teaching aids in mathematics learning can improve student learning outcomes (Tran & Duong, 2023). Several studies related to mathematics learning media have been developed. Media can be used as a means to convey messages so that learning objectives can be achieved effectively. Media is an intermediary for conveying messages (Dewi & Handayani, 2021). Media includes teaching aids that function well if they can provide meaningful learning experiences, thereby making students active and happy (Andrijati, 2014). Smart board media is a medium that can be used by teachers to convey certain messages in the learning process (Kamaladini, 2021).

The aim of using this media is to prevent students from getting bored with learning activities because it has interesting forms such as displays in the form of images, colors, numbers and letters. Smart board media is graphic media that can display certain messages practically, which consists of a board in the form of displays in the form of images, letters and numbers that can be installed or deleted (Maghfi & Suyadi, 2020). The smart board media has a rectangular shape, consists of various attractive colors, has the shapes of number symbols, and is equipped with two-dimensional object shapes that can be adapted to the learning theme (Chentiyah & Zulminiati, 2021).

Based on research (Mardianto & Ibra, 2015) entitled "Use of smart board media to improve mathematics learning outcomes in multiplication and division material in class II MIS Mutiara" it is proven that the use of smart board media can improve learning outcomes. From several previous research studies, no one has implemented the Doraemon pocket smart board learning media to support students' understanding of multiplication and division material. Multiplication can be interpreted as a number counting operation. Multiplication is a basic arithmetic process where a number is multiplied according to its multiplier. Multiplication is repeated addition (Heruman, 2013). According to (Haryono, 2014) multiplication is the addition of the same number in each term. Division is the opposite of multiplication. The concept of division begins by subtracting repeatedly using the same number until it is finished. According to (Heruman, 2013) a reduction that is repeated until it is finished is called division. Therefore, researchers are interested in conducting research with the title "The Influence of Doraemon Pocket Smart Board Learning Media on the Mathematical Understanding Ability of Class II Elementary School Students".



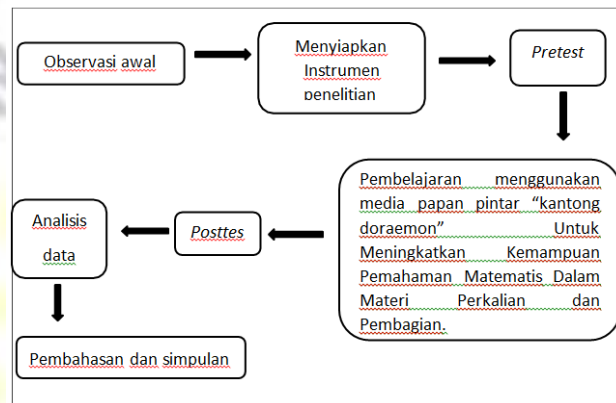
## METHOD

This research uses a quantitative research type of pre-experimental design with one group pretest-posttest type (Sugiyono, 2019). This research has two variables, namely: Student activity during the implementation of the Doraemon Pocket smart board learning media (X) as the independent variable, and Mathematical Understanding Ability (Y) as the dependent variable.

The population in this study was class II students, totaling 23 people. The sampling technique in this research uses non-probability sampling.

Data collection used in this research used tests to measure students' understanding abilities and questionnaires to determine students' responses to the use of the Doraemon Pocket smart board learning media.

The procedures and stages carried out in this research can be seen in Figure 2.



**FIGURE 2.** Research Procedure

The data analysis technique in this research uses the help of Microsoft Excel and SPSS. The tests used are validity test, reliability test, basic assumption test, simple linear regression test. The validity test of the instrument is calculated using the "Pearson product moment" correlation formula. Meanwhile, the reliability test is calculated using the "Alpha Crobach" formula. Once declared valid and reliable, the instrument can be used to give to students. Hypothesis testing to determine whether there is an influence between variables. The following are the results of validity and reliability in this research:

**TABLE 1.** Validity and Reliability Test Results

Question Number	Validity Test			Reliability Test	
	Sig. (2-tailed)	Pearson Correlation	Criteria	Cronbach's Alpha	N of Items
1	,008	,616**	Valid	.788	8
2	,001	,727**	Valid		
3	,015	,580*	Valid		
4	,001	,741**	Valid		
5	,036	,512*	Valid		
6	,007	,628**	Valid		

## RESULTS AND DISCUSSIONS

### RESULTS

The research entitled "The Influence of the Doraemon Pocket Smart Board Learning Media on the Mathematical Understanding Ability of Grade II Elementary School Students" aims to find out the effect of using the Doraemon Pocket Smart Board learning media on students' mathematical understanding abilities. This research uses a quantitative type of research with a one group pretest-posttest design. This research was conducted at the Sadagori 1 State Elementary School, Cirebon City, with research time starting from 23 to 31 August 2023, namely providing treatment in the form of mathematics learning using the Doraemon pocket smart board as media. The author carried out research activities, for the first meeting, namely conducting a validation test of research instruments which was held on May 23 2023, the second meeting was carrying out a pretest on 22 respondents which was held on August 23 2023, the third, fourth and fifth meetings were held on 25 to 28 August, namely learning using the Doraemon Pocket smart board learning media, the sixth meeting, namely the implementation of the posttest, was held on August 29 and the next meeting, namely filling out student response questionnaires, was held on August 31, 2023. The research sample consisted of 22 class II students at SD Negeri Sadagori 1 . Data was collected through test instruments in the form of pretest-posttest to measure students' mathematical understanding abilities and non-test instruments in the form of questionnaires to determine student responses. Before testing the influence of the independent variable on the dependent variable, several basic assumption tests were carried out as in table 2 and table 3.

**TABLE 2. Normality Test**

	Shapiro-Wilk		
	Statistic	Df	Sig.
x	,954	22	,378
Y	,944	22	,240

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

The Normality test taken was Shapiro-Wilk because the data taken was less than 50 samples. Based on the results of the Shapiro-Wilk normality test in Table 4.5 above, it shows that the significance value (Sig.) for variable (X) and variable (Y) data is 0.378 and 0.240. So it can be concluded that the results of the Shapiro-Wilk normality test show that all variable data is normally distributed. So that the next prerequisite test can be carried out linearity test.

**TABLE 3. Linearity Test**

ANOVA Table							
			Sum of Squares	df	Mean Square	F	Sig.
y * x	Between Groups	(Combined)	4078,693	19	214,668	11,449	,083
		Linearity	1060,251	1	1060,251	56,547	,017
		Deviation	3018,442	18	167,691	8,944	,105
		from Linearity					

Within Groups	37,500	2	18,750
Total	4116,193	21	

Based on the results of the linearity test in Table 4.5 above. The results of the linearity test show that the significance value is 0.105. Because the significance value is greater than 0.05, it can be concluded that there is a linear relationship between the Doraemon Pocket smart board learning media (X) and students' mathematical understanding abilities (Y). The linearity test aims to find out whether two or more variables being tested have a linear relationship or not significantly, because it is a prerequisite in linear regression analysis (Setiawan & Yosepha, 2020).

After the data is normally and linearly distributed, a regression test is then carried out to see whether there is an influence of student activities using the Doraemon bag learning media on students' mathematical understanding abilities as in table 4, table 5, and table 6.

**TABLE 4. Determination Test Results**

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,508 <sup>a</sup>	,258	,220	12,36111

a. Predictors: (Constant), x

Based on the results of the determination test table, the decision taken for the simple linear regression test is the value in the R Square table. From the table above, it is known that the R Square value obtained was 0.258 or 25.8%, while the other 74.2% was influenced by other variables which were not examined by the author in this study. So it can be concluded that the magnitude of the influence exerted by the smart board learning media variable (X) on mathematical understanding ability (Y) is 25.8%, thus the magnitude of the influence exerted falls into the low category, namely 25.8%.

**TABLE 5. ANOVATest Result**

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1060,251	1	1060,251	6,939	,016 <sup>b</sup>
	Residual	3055,942	20	152,797		
	Total	4116,193	21			

a. Dependent Variable: y

b. Predictors: (Constant), x

Based on the ANOVA table, it explains that there is a significant influence on variable (X) on variable (Y), from the output results above it can be seen that the probability significance level is 0.016, which means it is smaller than 0.05. So it can be concluded that there is a real influence from the Doraemon pocket smart board learning media on students' mathematical understanding abilities, and the regression model can be used to predict participant variables.

**TABLE 6. Simple Linear Regression Results**

		Coefficients		t	Sig.
		Unstandardized Coefficients	Standardized Coefficients		
Model		B	Std. Error		
1	(Constant)	102,325	11,751	8,708	,000
	x	-,756	,287	-,508	,016

a. Dependent Variable: y

The results of the output coefficients in the Sig column. obtained a significance value of 0.016. Hypothesis testing using the t test aims to determine the effect of variable (X) on variable (Y) partially. Based on decision making and test criteria, namely by comparing the obtained significance value with 0.05. With the following decision making criteria:

1. If the sig value is  $> 0.05$  then  $H_0$  is accepted and  $H_a$  is rejected.
2. If the sig value  $< 0.05$  then  $H_a$  is accepted and  $H_0$  is rejected.

The significance value obtained was  $0.016 < 0.05$ . Thus, based on the research hypothesis and test criteria,  $H_a$  is accepted and  $H_0$  is rejected. So it can be concluded that the use of smart board learning media **has a significant** effect on students' mathematical understanding abilities.

Apart from quantitative data, researchers also looked at qualitative data by giving questionnaires to students to strengthen the research findings. The questionnaire analysis aims to determine students' responses to the use of the Doraemon Pocket smart board learning media. The questionnaire was given to 22 students as respondents consisting of 15 statements containing four indicators, namely indicator 1 (the existence of interesting activities in learning), indicator 2 (the existence of a conducive learning environment that allows students to learn better), indicator 3 (media form), indicator 4 (Doraemon pocket media function). Based on the calculation results, the first indicator is included in **the high category**. In this way, the results of the average percentage can show that the use of smart board learning media for multiplication and division material can attract students to learn mathematics because students do more learning activities and activities using the Doraemon pocket smart board media. In the second indicator, **very high category** results were obtained. In this way, the results of the average percentage can show that the use of smart board learning media for multiplication and division material can create a conducive learning environment because when using smart board learning media students become orderly so that it can make students learn better in learning mathematics. Furthermore, the 3rd indicator is included in the **very high category**. In this way, the average percentage results can show that the use of smart board learning media, multiplication and division material, has an attractive shape, appearance and color so that it makes students happy in learning mathematics. Finally, the 4th indicator is included in **the high category**. In this way, the average percentage results can show that the use of smart board learning media for multiplication and division material has many functions that can be played by students so



that it makes students happy in learning mathematics. The recapitulation of the questionnaire results for each indicator can be seen in the following table:

**TABLE 7. Questionnaire Percentage Result**

No	Indicator	Percentage	Interpretation
1	There are interesting activities in learning	84%	Height
2	There is a conducive learning environment	87%	Very High
3	Forms of media	87%	Very High
4	Media functions	82%	Height
<b>Average</b>		85%	Very Height

Based on the percentage results in Table 7, it can be concluded that learning mathematics using the Doraemon pocket smart board learning media can foster students' interest in learning mathematics and provide a pleasant learning atmosphere, and can provide benefits for students in solving problems from learning mathematics. This is proven by a percentage of 85% with a **very high** interpretation.

## DISCUSSION

The use of the Doraemon Pocket smart board learning media in mathematics learning has a **significant impact and influence** on students' mathematical understanding abilities, this is influenced by the factor of students feeling happy in learning activities as seen from the lowest score before using the Doraemon Pocket Smart Board learning media then experiencing an increase after use of the Doraemon pocket smart board learning media. This is in line with research (Kamaladini, 2021) that learning media is effective in increasing understanding and making it easier for students to understand learning material. This is supported by the opinion of (Mardianto & Ibra, 2015) entitled "Use of smart board media to improve mathematics learning outcomes in multiplication and division material in class II MIS Mutiara". It is proven that the use of smart board media can improve learning outcomes and students' mathematical understanding abilities.

However, in this study the large influence given by the Doraemon pocket smart board learning media variable (X) on mathematical understanding ability (Y) is included in **the low category**, this is because the treatment of using learning media is less than optimal, thus affecting the frequency of student learning, in line with research (Fauzi et al., 2022) shows that the higher the student's learning frequency, the higher the student's mathematics learning outcomes, and vice versa, the lower the student's learning frequency, the lower the student's learning outcomes.

However, there are factors that can reduce the level of success and the magnitude of the influence that the use of the Doraemon Pocket Smart Board learning media has on students' mathematical understanding abilities, including students' readiness to participate in learning where students are engrossed in their own activities while the teacher is delivering the material, in line with a statement from (Alwiyah & Imaniyati, 2018) that students who do not have readiness to learn tend to behave in a non-conductive manner that disrupts the



learning process. Meanwhile, another factor that influences the success of using learning media is the length of study time which can make students feel bored (Rozie, 2018).

Based on the results obtained, student responses to indicators 1, 2, 3 and 4 are in the high category. This explains that the students' responses after using the Doraemon Pocket smart board learning media showed interest in learning according to the first indicator, because the dominant students answered the questionnaire with a score ranging from two to four, and was supported by students' enthusiasm in learning activities, thus creating a good learning atmosphere. pleasant. In line with the opinion of (W. N. Putri, 2017) interesting learning makes students enthusiastic about learning and actively involved in learning. By using learning media, students will carry out more learning activities and activities such as observing, doing demonstrations and other activities so that students are more interested and do not get bored easily (Supartini, 2016). Apart from that, a conducive and enjoyable learning environment means that the material presented can be easily accepted by students (Andrijati, 2014). A conducive learning environment is an atmosphere where there is a harmonious relationship between students and teachers and an orderly classroom atmosphere so that students can understand the material presented (Jumrawarsi & Suhaili, 2021).

Doraemon bag media has an attractive visual appearance for students and durable materials so it can be used for a long time. The attractive form of media consists of many colors, has shapes of number symbols, and is equipped with two-dimensional object shapes that can be adapted to the learning theme (Chentiya & Zulminiati, 2021). In line with the opinion of (Halidi et al., 2015) interesting forms of media can arouse students' new desires and interests in learning. According to (Nurrita, 2018) learning media functions as a source for students to obtain information provided by the teacher so that students can understand the learning material. Media functions as an intermediary that can support and assist students in learning (Aghni, 2018). This research has limitations, including: a less conducive classroom environment and relatively short learning time. Therefore, if there are researchers who will conduct similar research, it is recommended to prepare ice breakers, initial diagnosis tests to see students' initial abilities, and carry out learning with sufficient time.

## CONCLUSION

Based on the problem formulation, research results and discussion regarding "The Influence of Doraemon Pocket Smart Board Media on Students' Mathematical Understanding Ability", the following results were obtained: The use of Doraemon Pocket Smart Board learning media in mathematics learning has a significant influence on students' mathematical understanding abilities, with the level low influence category. Students' responses to the use of the Doraemon Pocket smart board learning media in mathematics learning gave positive responses with a very high category level.

## REFERENCES

- Aghni, R. I. (2018). Fungsi Dan Jenis Media Pembelajaran Dalam Pembelajaran Akuntansi. *Jurnal Pendidikan Akuntansi Indonesia*, 16(1), 98–107. <https://doi.org/10.21831/jpai.v16i1.20173>
- Alwiyah, D., & Imaniyati, N. (2018). Keterampilan Mengajar Guru Dan Kesiapan Belajar

- Siswa Sebagai Determinan Terhadap Hasil Belajar Siswa. *Jurnal MANAJERIAL*, 17(1), 95. <https://doi.org/10.17509/manajerial.v17i1.9767>
- Andrijati, N. (2014). Penerapan Media Pembelajaran Inovatif Dalam. *Jurnal Penelitian Pendidikan*, 31(2), 123–132.
- Chentiya, C., & Zulminiati, Z. (2021). Media Papan Pintar Terhadap Kemampuan Mengenal Lambang Bilangan Anak Usia 5-6 Tahun. *Edukids: Jurnal Pertumbuhan, Perkembangan, Dan Pendidikan Anak Usia Dini*, 18(2), 105–111. <https://doi.org/10.17509/edukids.v18i2.33992>
- Dewi, F. F., & Handayani, S. L. (2021). Pengembangan Media Pembelajaran Video Animasi En-Alter Sources Berbasis Aplikasi Powtoon Materi Sumber Energi Alternatif Sekolah Dasar. *Jurnal Basicedu*, 5(4), 2530–2540. <https://jbasic.org/index.php/basicedu/article/view/1229>
- Fauzi, R., Suhartono, S., & Wahyudi, W. (2022). Pengaruh Frekuensi Belajar Terhadap Hasil Belajar Matematika Siswa Kelas Iv Sd Negeri Sekecamatan Kebumen Tahun Ajaran 2020/2021. *Kalam Cendekia: Jurnal Ilmiah Kependidikan*, 10(1). <https://doi.org/10.20961/jkc.v10i1.55128>
- Halidi, H. M., Husain, S. N., & Saehana, S. (2015). Pengaruh Media Pembelajaran Berbasis TIK terhadap Motivasi dan Hasil Belajar IPA Siswa Kelas V SDN Model Terpadu Madani Palu. *Jurnal Mitra Sains*, 3(1), 53–60. <http://jurnal.pasca.untad.ac.id/index.php/MitraSains/article/view/58/23>
- Haryono, A. D. (2014). *Matematika Dasar Untuk PGSD*. Aditya Media Publishing.
- Heruman. (2013). *Model Pembelajaran Matematika di Sekolah Dasar*. PT Remaja Rosdakarya.
- Jumrawarsi, J., & Suhaili, N. (2021). Peran Seorang Guru Dalam Menciptakan Lingkungan Belajar Yang Kondusif. *Ensiklopedia Education Review*, 2(3), 50–54. <https://doi.org/10.33559/eer.v2i3.628>
- Kamaladini. (2021). Pengembangan Media Papan Pintar Untuk Meningkatkan Motivasi Peserta Didik Pada Tema 7 Sub Tema 2 Pembelajaran 5 Di Kelas 1 Sekolah Dasar. *Pengembangan Media Papan Pintar*, 3(2), 1–81.
- Kosasih E. (2013). *Strategi Belajar dan Pembelajaran Implementasi Kurikulum*. Yrama Widya.
- Maghfi, N. U., & Suyadi. (2020). Meningkatkan Kemampuan Bahasa Anak Melalui Media Papan Pintar (Smart Board). *SELING "Jurnal Program Studi PGRA"*, 6(2), 157–170.
- Mardianto, & Ibra, P. A. (2015). *Penggunaan Media Papan Pintar untuk Meningkatkan Hasil Belajar Matematika pada Materi Perkalian dan Pembagian di Kelas II MIS Mutiara*.
- Nurrita, T. (2018). Pengembangan Media Pembelajaran Untuk Meningkatkan Hasil Belajar Siswa. *MISYKAT: Jurnal Ilmu-Ilmu Al-Quran, Hadist, Syari'ah Dan Tarbiyah*, 3(1), 171–187. <https://doi.org/10.33511/misykat.v3n1.171>
- Pane, A., & Dasopang, M. D. (2017). Belajar dan Pembelajaran. *Fitrah: Jurnal Kajian Ilmu-Ilmu Keislaman*, 3(2), 333–352.
- Putra, H. D., Setiawan, H., Nurdianti, D., Retta, I., & Desi, A. (2018). Kemampuan Pemahaman Matematis Siswa Smp Di Bandung Barat. *Jurnal Penelitian Dan Pembelajaran Matematika*, 11(1). <https://doi.org/10.30870/jppm.v11i1.2981>

- Putri, R., & Kasriman. (2022). Pengaruh Media Pembelajaran Papan Pintar (Smart Board) Terhadap Kemampuan Membaca Permulaan Peserta Didik Pada Mata Pelajaran Bahasa Indonesia Kelas 1 Sekolah Dasar. *Jurnal Cakrawala Pendas*, 8(4), 1181–1189. <https://doi.org/10.31949/jcp.v8i4.2716>
- Putri, W. N. (2017). Pengaruh Media Pembelajaran terhadap Motivasi Belajar Bahasa Arab Siswa Madrasah Tsanawiyah. *LISANIA: Journal of Arabic Education and Literature*, 1(1), 1–16. <https://doi.org/10.18326/lisanian.v1i1.817>
- Radiusman, R. (2020). Studi Literasi: Pemahaman Konsep Anak Pada Pembelajaran Matematika. *FIBONACCI: Jurnal Pendidikan Matematika Dan Matematika*, 6(1), 1. <https://doi.org/10.24853/fbc.6.1.1-8>
- Rozie, F. (2018). Persepsi guru sekolah dasar tentang penggunaan media pembelajaran sebagai alat bantu pencapaian tujuan pembelajaran. *Widyagogik: Jurnal Pendidikan Dan Pembelajaran Sekolah Dasar*, 5(2), 1–12.
- Santoso, E. (2017). Penggunaan Model Pembelajaran Kontekstual Untuk Meningkatkan Kemampuan Pemahaman Matematika Siswa Sekolah Dasar. *Jurnal Cakrawala Pendas*, 3(1). <https://doi.org/10.31949/jcp.v3i1.407>
- Setiawan, C. K., & Yosepha, S. Y. (2020). Pengaruh Green Marketing dan Brand Image Terhadap Keputusan Pembelian Produk The Body Shop Indonesia. *Jurnal Ilmiah M-Progress*, 10(1). <https://doi.org/10.35968/m-pu.v10i1.371>
- Sugiyono, P. D. (2019). *Metode Penelitian Pendidikan: Pendekatan Kuantitatif, Kualitatif, R&D (Cetakan Ke 26)*. CV Alfabeta.
- Supartini, M. (2016). Pengaruh Penggunaan Media Pembelajaran Dan Kreativitas Guru Terhadap Prestasi Belajar Siswa Kelas Tinggi Di Sdn Mangunharjo 3 Kecamatan Mayangan Kota Probolinggo. *Jurnal Penelitian Dan Pendidikan IPS (JPPI)*, 10(2), 1858–4985. <http://ejournal.unikama.ac.id/index.php/JPPI>
- Tran, T. A., & Duong, V. (2023). Improving Mathematics Learning Outcomes Using Concrete Props in Grade V Elementary School Students. *IRAONO: Journal of Elementary and Childhood Education*, 1(1), 8–15. <https://doi.org/10.56207/iraono.v1i1.115>
- Widyasari, N., & Soptianingrum, M. (2019). Enhancing Students' Mathematical Understanding of Three Dimension Through PABARU Tools Aid. *Educational Initiatives Research Colloquium*, 82–83.