The Impact of the Realistic Mathematics Education (RME) Learning Model on Students' Understanding of Mathematical Concepts

Submitted:	
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Abstract: Several previous studies have applied the Realistic Mathematics Education learning model, but few have linked this research to simple spatial geometry material. The study looked at the differences in the influence of the Realistic Mathematics Education learning model on students' understanding of mathematical concepts. The type of research is Quasi Experimental Design with a quantitative method as a sample representing 47 students of class V SDN 2 Way Gubag Bandar Lampung. The instrument used was an essay test, the results of the normality and homogeneity tests showed that both samples were normally distributed and homogeneous. The findings of the analysis using the t-test. It can be concluded that the sig value (2-tailed) is 0.00 <0.05, then it is accepted and rejected so that there is a significant difference in students' understanding of the concept. Which means that there is an influence of the Realistic Mathematics Education (RME) learning model on students' understanding of mathematical concepts in class V SDN 2 Way Gubag Bandar Lampung. So it can be recommended as an effective learning model in learning Mathematics.

Keywords: Realistic Mathematics Education, Understanding Mathematical Concepts

PRELIMINARY

Conceptual understanding in elementary school mathematics learning is very important considering that mathematics is not just about memorizing, but students must be able to understand, apply and express it again in their own language (Diana et al., 2020). According to Fajar et al., conceptual understanding is important in problem solving because to solve a problem, rules based on concepts are needed (Fajar et al., 2019). Mathematics learning must be carried out systematically, meaning that in mathematics learning, it cannot jump around freely, but starts from understanding simple ideas and concepts to more complex concepts (Agustina et al., 2019). The ability to understand concepts plays a major role in determining learning outcomes. Students who have good conceptual understanding skills will make it easier to learn and solve mathematical

problems. Students' mathematical understanding skills can be said to be high if all indicators of conceptual understanding from the questions given to students are achieved (Ditasari et al., 2022).

According to Novitasari, understanding is the ability to capture the meaning of a concept. Understanding is also the ability to express a definition using one's own language (Siti Ruqoyyah, 2020). Anderson and Krathwoll define understanding as the ability to capture the meaning and significance of the material being studied. Students are said to have an understanding of the concepts being studied if they can capture learning messages (Suhartono et al., 2021). Meanwhile, Oemar Hamalik in the book by Dilla Desvi Yolanda argues that concepts are a class of stimuli that have general properties. Concepts develop in line with subsequent experiences with situations, events, treatments or other activities, whether obtained from reading or direct experience. This concept itself is very closely related to basic understanding (Yolanda, 2020). Students develop a concept when they are able to classify or group objects or associate names in a particular group. Concepts will appear in various contexts, so that understanding the concept will be related to the situation (Sarumaha et al., 2024).

According to Klipatrict, Swafford, and Findel, conceptual understanding is the ability to understand a concept, operation and relationship in mathematics (Siti Ruqoyyah, 2020). Understanding a mathematical concept also allows students to understand new information that can be used to make decisions, solve problems, generalize, reflect and draw conclusions (Radiusman, 2020). Conceptual understanding is a basic concept and an important stage in the series of mathematics learning. The main emphasis of mathematics learning is how students are able to understand mathematical concepts, so mathematics learning must provide opportunities for students to construct mathematical concepts, so that students are not only given abstract mathematical material that makes it difficult for students to understand mathematics lessons (Hulu et al., 2023). The ability to understand mathematical concepts is one of the most important goals in the mathematics learning process, the material given to students is not only for memorization but students need to understand the concept of the material given by the educator (Neneng Aminah, 2019). During the learning process, students are asked to understand the concepts and materials that have been given with a tendency towards an active and conscious attitude. (Febriyani et al., 2022).

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There are several research findings that are in line with the understanding of mathematical concepts, including those conducted by Hafiza Al Ziqro Tamrin and Netriwati who stated that the Fraction Circle learning model can improve students' understanding of mathematical concepts (Tamrin et al., 2018). The same thing was also said by Retno Rhisalatul Umami that ARCA media has been proven to improve understanding of mathematical concepts (Umami et al., 2024). Furthermore, research conducted by Husnul Bariyah that the Discovery Learning learning media results showed that there was an influence of the learning model on students' understanding of mathematical concepts (Bariyah & Fitriana, 2024). In addition to using learning models that have been researched previously, another learning model that can be used to improve students' understanding of mathematical concepts is the Realistic Mathematics Education learning model.

According to Sarumaha, a learning model is a framework that provides a systematic overview of learning activities in order to assist in the learning process of students in achieving the desired learning objectives. In other words, this learning model is a general description but still refers to specific objectives (Martiman S. Sarumaha; and Rebecca Evelyn Laiya, 2023). In line with Sarumaha, according to Soekamto in Aris Shoimin, a learning model is a conceptual framework that describes a systematic procedure in organizing experiences in the learning process to achieve certain learning objectives, and functions as a guideline for learning designers and educators in planning learning activities (Shoimin, 2014). As for learning activities that are truly activities that have a purpose and are systematically arranged in patterns, references, or varieties, which are used to plan the beginning of learning (Nurlaelah & Sakkir, 2020).

In addition to problems with understanding concepts, learning models also need to be considered in teaching, educators must be able to choose the right model according to the characteristics of students and the material being taught. One of the models used in this study is the Realistic Mathematics Education model. The reason for choosing this model is because the students who are the sample are elementary school level, so this model is appropriate to use so that the material taught is concrete in accordance with the real world of students. According to Rusmiyati and Ruqoyyah (2023), Realistic Mathematics Education is a learning model that involves students' experiences with the students themselves to find an answer to a question, so that students do not forget what they get, so that this learning is more enjoyable according to the reality around them, and provides opportunities for students to rediscover and construct mathematical concepts (Pangestu et al., 2023). Meanwhile, according to Turmudi, RME is a mathematics learning process that is linked to the real world. According to Achmad, the RME model is an alternative for an educator in the learning process by providing demands on students in the construction of knowledge that is owned by students themselves with activities carried out in the learning process (Setyawan, 2020). The RME model is a learning model that emphasizes the importance of real contexts known by students and the process of constructing mathematical knowledge by students themselves (Mustapa, 2024).

Sumirattana argues that mathematics learning is applied through real events in life that are close to children's experiences and in accordance with society so that students can imagine them. Thus, the RME learning model is implemented through the mathematization process (Amelia Rosmala, 2018). RME is a mathematics learning process that directly applies learning related to real life (Kurniawati et al., 2019). The main focus of the RME learning model is ideas formed from the results of human activities and the process of mathematical reality, where this RME model brings students to the real world from everyday experiences, so that the lessons learned in mathematics class are not separate from the real world (Rosyada et al., 2019). The application of the Realistic Mathematics Education learning model is expected to be able to improve students' abilities in solving mathematical problems such as the ability to analyze, formulate, solve, and present mathematical problems in various situations and forms. (Wijayanti & Marhaeni, 2024).

There are several findings that are in line with the Realistic Mathematics Education Learning model among the research conducted by Paojiah, that the Realistic Mathematics Education learning model can improve mathematical connection skills in elementary school students (Paojiah, Turmudi, 2023). This is also in line with the research conducted by Charina Putri and Ahmad Landong which states that the Realistic Mathematics Education learning model can have an influence on Mathematical Literacy in addition and subtraction materials (Putri & Landong, 2021). Based on previous research, it can be seen that the Realistic Mathematics Education (RME) learning model can improve mathematical connection skills and literacy. In addition, this learning model is able to improve students' understanding of mathematical concepts.

METHOD

Quantitative research analyzes numerical data that requires initial design, theory is determined first, samples and populations are very important because they will be analyzed first and then concluded (Netriwati, 2019). The purpose of the study is to test the impact of a treatment or treatment on the results of the study, in order to find the effect of certain treatments on others (Munte et al., 2023). The type of experiment that will be used is Quasi Experiment Design, namely Posttest Only Control Group Design (Ismail, 2018). The description of this study according to Fajri Ismail is as follows:

$$\begin{array}{ccc} R & X & 0_1 \\ R & 0_2 \end{array}$$

Information:

R : Two groups were not selected randomly

- 0_1 : The experimental group was given treatment (treatment)
- 0_2 : Control group given treatment
- X : the treatment being tested

The population in this study represents 47 fifth grade students of the odd semester of SDN 2 Way Gubag in the 2024 academic year. The research instrument is a tool used by researchers to collect data, measure phenomena, and analyze data that is in accordance with the problems faced by the subjects or samples observed (Milenia, 2019). The instrument used is the researcher's own design whose reference is in accordance with the concept understanding indicators. Before being used in this study, the test sheet has been validated by experts. Hypothesis testing uses the T-test (Siregar, 2017). The following is the formula for the T-test sample related variant:

$$t = \frac{\overline{X}_1 - \overline{X}_2}{\sqrt{\frac{(n_1 - 1) + S_1^2 (n_2 - 1)S_2^2}{n_1 + n_2 - 2}} \left(\frac{1}{n_1} + \frac{1}{n_2}\right)}$$

Information :

- \overline{X}_1 : Average score of students in experimental class
- \overline{X}_2 : Average score of control class students
- n_1 : The amount of experimental class data
- n_2 : amount of control class data
- S_1^2 : Standard deviation of experimental class
- S_2^2 : Standar Deviansi kelas kontrol.

Testing Rules:

If $T_{tabel} > t_{hitung}$ then H_0 Rejected If $T_{tabel} < t_{hitung}$ then H_0 Rejected

RESULTS

Based on the results of the data analysis, the findings show that there are differences between the two groups. The experimental group uses the Realistic Mathematics Education learning model while the control class uses the Direct Instruction learning model. Based on the essay test, it can be seen that the experimental class experienced an increase compared to the control class. The results of this test are also in line with research by Mardiah (2020) which states that the Realistic Mathematics Education learning model can improve students' understanding of mathematical concepts.

Experimental Class	Kelas Kontrol				
Ahmad Alfian	Abdul Ghani As Shaka				
Ajeng Nia Putri	Afrizal Saputra				
Almira Nasution	Aisyah Indriani				
Amila Sundari	Aji Prastia				
Anisa Agustia Putri	Alfira Rasifa				
Azam Al Ghazali	Andini				
Bambang Segoro	Aqila Ainun Mahya				
Imam Nur Hakim	Aqiya Azzahra Maulana				
M. Abidzar Fradita	Dewi Hasanah Putri				
M. Riza Al Dzikri	Febby Silviani				
M. Ridho Romadhon	Galij Adi Putra				
M. Alfine Almasyah Meilano	Januwar Wijaya				
Nazwa Alisna Rama	Khaila Almira Meiriza				
Putri Anindya Talita Azmi	Meri Handayani				
Qyara Riani Divanti	Muhammad Erwin				
Rafa Anggara Putra	Norman Suheri				
Salsa Naurel	Pajar Ramadhani				
Salsabila Aulia Bilqis	Rafi Anggara Putra				
Selvi Kalista	Rani Nurmala				
Siti Aisyah	Selvi Safitri				
Sulis Alika Fatina	Tri Ajeng Anjani				
Zulaekha Fasya	Waldy				
Kiara Sapania Zalnata					
Yasmita Ibelia					
Putri Anggraeni Saputra					

Table 1. Class Groups

No	Posttest Value	Posttest Value Control Class				
190.	Experimental Class					
1	83	83				
2	81	42				
3	75	75				
4	100	58				
5	83	71				
6	83	71				
7	77	71				
8	79	81				
9	79	75				
10	81	71				
11	81	65				
12	81	58				
13	79	58				
14	77	85				
15	83	54				
16	100	54				
17	79	38				
18	79	42				
19	90	83				
20	75	42				
21	75	42				
22	79	71				
23	85					
24	83					
25	90					

Table 2. Posttest Values of Experimental Class and Control Class

Normality Test

Table 3. Normality Test Results Tests of Normality

		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Class	Statistic	df	Sig.	Statistic	df	Sig.
Understanding Mathematical	Posttest Kelas Eksperimen	.172	25	.056	.925	25	.065
Concepts	Posttest Kelas Kontrol	.180	22	.061	.912	22	.051

a. Lilliefors Significance Correction

Table 3 shows that the results of the Shapiro-Wilk test in the experimental class have a sig. value of 0.065 and sig. 0.051 for the control class with a significance level = 0.05. This means that the experimental and control classes sig. It is concluded that the data is normally distributed.

Test Results						
	Box's M	6.297				
F	Approx.	6.165				
	df1	1				
	df2	6003.319				
	Sig.	.263				

Table 4. Homogeneity Test Results

Homogeneity Test

Tests null hypothesis of equal population covariance matrices.

Table 4. that the sig. value (= 0.05) is obtained that the sig. value is 0.263 = 0.05. So it is concluded that the sample comes from a population that has the same variance or homogeneous data. Because the two prerequisite tests are met, it is continued with the T-test.

Hypothesis Testing (T-Test)

Table 5. T-test Results Independent Samples Test

Levene's Test for Equality of Variances			t-test for Equality of Means							
						Sig. (2-	Mean	Std. Error	95% Confidence Interval of the Difference	
		F	Sig.	Т	Df	tailed)	Difference	Difference	Lower	Upper
Understanding Mathematical Concepts	Equal variances assumed	5.829	.380	4.714	45	.000	16.827	3.570	9.638	24.017
	Equal variances not assumed			4.566	32.935	.000	16.827	3.686	9.328	24.327

Based on table 4.12 obtained = 2.0410 and = 4.714 then ($4.714\ 2.0410$) obtained the conclusion accepted and rejected. The results of the t-test also show that the p-value (Sig. (2-tailed)) is 0.00 with a significance level of = 0.05. This shows that the p-value ($0.00\ 0.05$). So it can be concluded that there is a significant influence of the Realistic Mathematics Education Learning Model on the understanding of mathematical concepts of class V students of SDN 2 Way Gubag.

DISCUSSION

The results of the test calculations obtained that the Realistic Mathematics Education learning model can improve students' understanding of mathematical concepts. The Realistic Mathematics Education learning model can be an alternative to improve the learning process in schools, this can be seen from the findings that occurred during the learning process and the results of the test implementation in the experimental class more than the control class. In the control class using the Direct Instruction learning model had a small impact on students' understanding of mathematical concepts. One of the advantages of the Realistic Mathematics Education learning model is that it can provide more interesting learning because it uses media that can be found in students' daily lives. This is related to Freundenthal's opinion (Netriwati, 2018) in mathematics learning must be linked to reality and mathematics is a human activity. This means it must be close to children and relevant to everyday life.

In addition, learning activities using the Realistic Mathematics Education learning model in the experimental class can make students appear more enthusiastic because they have the opportunity to discuss with their friends. When distributing tasks related to spatial figures, students are more active in asking questions and discussing them, including discussions with their classmates. The Realistic Mathematics Education learning model is also able to maximize the characteristics of fifth grade students in elementary schools. Based on the opinion put forward by Piaget (Tanjung A., W., 2022), it is stated that the stages of child development have different characteristics. At the age of 7 to 11 years, students are classified as being in the concrete operational stage, at this stage children have begun to understand the communicative aspects of the material, have the ability to understand how to combine several groups of objects of varying levels, in addition children are able to think systematically about concrete objects and events. At this stage too, students in learning must be real or realistic.

In other conditions, the control class seemed less enthusiastic in learning using the Direct Instruction learning model. In the researcher's observations, students tended to divert their attention to what was explained by the researcher. They seemed less attentive and tended to divert their attention to their classmates. This refers to the opinion expressed by Dyah Wulan Sari (2020), that Direct Instruction is a learning model that is centered on educators and is dominated by taking notes and working on practice questions. This is one of the reasons why students do not pay attention to educators because this model makes students less focused and active in learning in class.

Based on the learning results, it was found that participants in the experimental class using the Realistic Mathematics Education learning model in mathematics learning had a higher interest in learning and increased conceptual understanding abilities. This also makes students have more specific and broader knowledge. Students are also more active in asking questions and discussing with their friends. This shows that the Realistic Mathematics Education model affects students' understanding of mathematical concepts. Understanding concepts is so important in learning, so educators should be able to choose the right learning model with the characteristics of students and the material being taught. So that the learning process becomes enjoyable and the grades obtained are satisfactory.

CONCLUSION

The results of the discussion and analysis can be described that the Realistic Mathematics Education (RME) learning model has an effect on the understanding of mathematical concepts of class V students. Based on the t-test calculations that have been carried out, it shows that This can be seen based on hypothesis testing using the t-test on the Posttest result data with the SPSS program, the value of the t-test results is also known that the p-value (Sig. (2-tailed)) is 0.00 with a significance level = 0.05. This shows that the p-value = 0.00 0.05. Based on the t-test calculations that have been carried out, it shows that it is accepted and rejected. So there is an influence of the Realistic Mathematics Education (RME) learning model on the understanding of mathematical concepts of class V students of SDN 2 Way Gubag Bandar Lampung.

REFERENCES

Agustina, T., Sukmana, N., & Rahmawati, D. (2019). Penerapan Model Diskursus Multi Representasi (DMR) untuk Meningkatkan Pemahaman Konsep Matematis Siswa. *Educare*, 17(2), 151–158.

Amelia Rosmala, I. (2018). Model-model pembelajaran matematika. PT. Bumi Aksara.

Baina, N., Machmud, T., & Abdullah, A. W. (2022). Deskripsi Kemampuan Pemahaman Konsep Matematika Siswa pada Materi Sistem Persamaan Linear Tiga Variabel. *Jambura Journal of Mathematics Education*, 3(1), 28–37.

Bariyah, H., & Fitriana, Y. (2024). Pengaruh Model Discovery Learning terhadap

Kemampuan Pemahaman Konsep Matematis Siswa Kelas IX SMP. Mathema Journal E-Issn, 6(1), 2024.

- Diana, P., Marethi, I., & Pamungkas, A. S. (2020). Kemampuan Pemahaman Konsep Matematis Siswa: Ditinjau dari Kategori Kecemasan Matematik. SJME (Supremum Journal of Mathematics Education), 4(1), 24. https://doi.org/10.35706/sjme.v4i1.2033
- Ditasari, D. D., Ulya, H., & Wanabuliandari, S. (2022). Analisis Kemampuan Pemahaman Konsep Matematis Siswa Yang Menggunakan Model Pembelajaran Core. 6(2), 2560–2566.
- Dr. Martiman S. Sarumaha; Dr. Rebecca Evelyn Laiya, M.(2023). *Model-Model Pembelajaran*. CV Jejak (Jejak Publisher). https://books.google.co.id/books?id=5v_gEAAAQBAJ
- Fajar, A. P., Kodirun, K., Suhar, S., & Arapu, L. (2019). Analisis Kemampuan Pemahaman Konsep Matematis Siswa Kelas VIII SMP Negeri 17 Kendari. Jurnal Pendidikan Matematika, 9(2), 229. https://doi.org/10.36709/jpm.v9i2.5872
- Febriyani, A., Hakim, A. R., & Hakim, N. (2022). Peran Disposisi Matematis terhadap Kemampuan Pemahaman Konsep Matematika. *Plusminus: Jurnal Pendidikan Matematika*, 2(1), 87–100. https://doi.org/10.31980/plusminus.v2i1.1087
- Hulu, P., Harefa, A. O., & Mendrofa, R. N. (2023). Studi Model Pembelajaran Inkuiri terhadap Pemahaman Konsep Matematika Siswa. *Educativo: Jurnal Pendidikan*, 2(1), 152–159. https://doi.org/10.56248/educativo.v2i1.97
- Ismail, F. (2018). *Statistika Untuk Penelitian Pendidikan dan Ilmu-ilmu Sosial*. Prenadamedia group.
- Kurniawati, F., Suparman, & Pratiwi, S. A. (2019). Analisis Kebutuhan Media Pembelajaran Menggunakan Pendekatan Rme Untuk Meningkatkan Kemampuan Komunikasi. *Prosiding Seminar Nasional Pendidikan*, 2(1), 11–17.
- Melawati, R. (2020). Penerapan Model Pembelajaran Realistic Mathematics Education Untuk Meningkatkan Kemampuan Komunikasi Matematis Menggunakan Lembar Kerja Siswa. Jurnal PEKA (Pendidikan Matematika), 3(2), 44–49. https://doi.org/10.37150/jp.v3i2.800
- Milenia, T. A. (2019). Pengaruh Knowledge Management Terhadap Keberhasilan Umkm Dengan Kompetensi Sebagai Variabel Intervening (Kasus Pada UMKM di Kabupaten Sidoarjo).
- Munte, R. S., Risnita, Jailani, M. S., & Siregar Isropil. (2023). Jenis Penelitian Eksperimen dan Noneksperimen (Design Klausal Komparatif dan Design Korelasional). Jurnal Pendidikan, 7(3), 27602–27605.
- Mustapa. (2024). *Kelas Matematika Seru dengan Model Pembelajaran CRH, RME, dan TAI.* CV. Adanu Abimata.
- Neneng Aminah, M. (n.d.). *Keterampilan dasar mengajar*. LovRinz Publishing. https://books.google.co.id/books?id=Ws5xEAAAQBAJ
- Netriwati. (2019). Metode Penelitian. CV. IRDH.

- Nurlaelah, N., & Sakkir, G. (2020). Model Pembelajaran Respons Verbal dalam Kemampuan Berbicara. *Edumaspul: Jurnal Pendidikan*, 4(1), 113–122. https://doi.org/10.33487/edumaspul.v4i1.230
- Pangestu, I. A., Ruqoyyah, S., & Siliwangi, I. (2023). Pembelajaran daring materi bangun ruang pada siswa kelas V SD menggunakan pendekatan realistic mathematics education (RME). *Journal of Elementary Education*, 06(02), 228–234.
- Paojiah, Turmudi, P. R. (2023). Penerapan Model Pembelajaran Realistic Mathematics Education Untuk Meningkatkan Kemampuan Koneksi Matematis Siswa Sekolah Dasar. Jurnal PEKA (Pendidikan Matematika), 3(2), 44–49. https://doi.org/10.37150/jp.v3i2.800
- Putri, C., & Landong, A. (2021). Cybernetics: Journal Educational Research and Social Studies. *Cybernetics: Journal Educational Research and Sosial Studies*, 2(April), 1–10.
- 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
- Rosyada, T. A., Sari, Y., & Cahyaningtyas, A. P. (2019). Pengaruh Model Pembelajaran Realistic Mathematics Education (Rme) Terhadap Kemampuan Pemecahan Masalah Matematika Siswa Kelas V. Jurnal Ilmiah Pendidikan Dasar, 6(2), 116. https://doi.org/10.30659/pendas.6.2.116-23
- Sarumaha, Y. A., Putra, A. P., & Hermawan, T. (2024). Pengaruh Penggunaan Media Pembelajaran Berbasis Digital Terhadap Pemahaman Konsep Matematika Siswa Kelas VIII SMP. APOTEMA: Jurnal Program Studi Pendidikan Matematika, 10(1), 21–30. http://publikasi.stkippgribkl.ac.id/index.php/APM/article/view/1043%0Ahttp://publikasi.stkippgribkl.ac.id/index.php/APM/article/download/1043/724
- Setyawan, D. (2020). Meningkatan Hasil Belajar Siswa Menggunakan Realistic Mathematics Education (RME) Berbantuan Media Konkrit. Jurnal Bidang Pendidikan Dasar, 4(2), 155–163. https://doi.org/10.21067/jbpd.v4i2.4473
- Shoimin, A. (2014). 68 Model Pembelajaran Inovatif Dalam Kurikulum 2013. Ar-Ruzz Media.
- Siregar, S. (2017). *Statistika Terapan Untuk Perguruan Tinggi*. PT Khasrisma Putra Utama.
- Siti Ruqoyyah, S. M. L. L. (2020). Kemampuan Pemahaman Konsep Dan Resiliensi Matematika Dengan VBA Microsoft Excel. Purwakarta: CV. Tre Alea Jacta Pedagogie. https://books.google.co.id/books?id=R2IXEAAAQBAJ
- Suhartono, S., Indramawan, A., & Anam, S. (2021). Group Investigation; Konsep dan Implementasi dalam Pembelajaran. Academia Publication. https://books.google.co.id/books?id=KeE2EAAAQBAJ

Tamrin, H. A. Z., Netriwati, & Suherman. (2018). Model Fraction Circle Untuk

Meningkatkan Pemahaman Konsep Peserta Didik Dalam Penjumlahan Pecahan.Prosiding : Seminar Nasional Matematika Dan Pendidikan Matematika, UINRadenIntanLampung,1(2),487–493.http://ejournal.radenintan.ac.id/index.php/pspm/article/view/2449

- Umami, R. R., Utaminingsih, S., & Riswari, L. A. (2024). Efektivitas Pendekatan Realistic Mathematics Education Berbantuan Media ARCA Terhadap Pemahaman Konsep Matematika Siswa Kelas V SD. Jurnal Ilmiah Profesi Pendidikan, 9(1), 325–333. https://doi.org/10.29303/jipp.v9i1.2057
- Wijayanti, A. A., & Marhaeni, N. H. (2024). Pengaruh Model Pembelajaran Pendidikan Matematika Realistik Indonesia (PMRI) Terhadap Kemampuan Numerasi Siswa. *Cartesian: Jurnal Pendidikan Matematika*, 3(02), 44–52. https://doi.org/10.33752/cartesian.v3i02.5755
- Yolanda, D. D. (2020). Pemahaman Konsep Matematika Dengan Metode Discovery. Guepedia.