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Research Article

The Effect of the Ethno-RME Learning Model on Improving HOTS and Self-Efficacy of Elementary School Students

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Abstract: Mathematics learning in elementary schools is still largely abstract, as it focuses on memorizing formulas and procedures without involving cultural contexts that are close to students' daily lives. This condition leads to low levels of higher-order thinking skills (HOTS) and self-efficacy. This study aims to examine the effect of applying the Ethno-Realistic Mathematics Education (Ethno-RME) model on improving HOTS and self-efficacy among elementary school students. This study highlights its novelty by simultaneously examining cognitive (HOTS) and affective (self-efficacy) outcomes within an Ethno-RME framework at the elementary school level, which remains underexplored in previous studies. The research employed a quantitative approach with a pre-experimental one group pretest-posttest design. The instruments consisted of a HOTS test and a self-efficacy questionnaire administered before and after the treatment. Data were analyzed concisely using multiple regression analysis to examine the contribution of Ethno-RME to both outcome variables. The subjects were 159 elementary school students in Kesambi District. The results showed a significant improvement in students' HOTS and self-efficacy after the implementation of the Ethno-RME model based on traditional house miniatures. These findings indicate that integrating local culture into mathematics learning through a realistic approach not only enhances cognitive understanding but also strengthens students' confidence. Therefore, the Ethno-RME model can serve as an alternative contextual learning strategy that supports the development of both HOTS and self-efficacy.

Keywords: elementary school, ethno-RME, HOTS, self-efficacy

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INTRODUCTION

Furthermore, mathematics learning in elementary schools should not only focus on mastering procedural knowledge, but also emphasize the development of students' reasoning abilities and confidence in problem solving. As previously stated, mathematics plays a fundamental role in shaping logical, analytical, and critical thinking skills (Miftahul Jannah & Miftahul Hayati, 2024), and elementary education serves as a crucial foundation for students' cognitive, emotional, and social development (Ramdani et al., 2021). However, when learning is still dominated by abstract explanations and conventional teaching methods, students often experience difficulties in understanding mathematical concepts meaningfully (Meliani Gracia & Margaretha Lidya Sumarni, 2025). Student-centered learning has been shown to increase students' engagement and active participation in the learning process (Nurhasanah et al., 2022).

In line with this, the use of active learning models can effectively motivate students and improve learning outcomes (Farhin et al., 2023). Teachers are therefore expected to act as facilitators who design innovative learning environments that support the development of students' thinking skills and confidence (Akhyar et al., 2024). Nevertheless, preliminary observations indicate that such learning practices have not been optimally implemented, resulting in students' low Higher Order Thinking Skills (HOTS) and weak self-efficacy, particularly when dealing with mathematical problems that require reasoning (Aka & Afandi, 2023). Several recent studies have emphasized that learning which lacks contextual relevance tends to limit students' ability to analyze, evaluate, and create solutions, which are core components of HOTS (Gusmaniarti et al., 2024; Mendrofa et al., 2024).

This condition is further exacerbated by students' low self-confidence in mathematics, which affects their persistence and willingness to engage in challenging tasks. Self-efficacy plays a significant role in determining how students approach learning tasks, overcome difficulties, and achieve academic success (Bandura, 1997; Afifah et al., 2024). Students with low self-efficacy are more likely to avoid complex problems and rely heavily on teacher assistance, limiting their opportunities to develop independent thinking skills. Ideally, mathematics learning should be contextual, meaningful, and closely related to students' real-life experiences in order to foster both HOTS and self-confidence (Rahmadani et al., 2022). One promising approach to achieving this ideal condition is the integration of local culture into mathematics learning through ethnomathematics. Ethnomathematics views mathematical concepts as embedded in cultural practices, allowing students to recognize mathematics as part of their everyday lives (D'Ambrosio, 1985; Fitriatunnisa et al., 2024).

When combined with the principles of Realistic Mathematics Education (RME), which emphasizes learning through realistic and meaningful situations, this integration forms the Ethno-RME approach. Ethno-RME-based learning enables students to explore mathematical concepts through cultural objects that are familiar to them, such as traditional houses, patterns, and spatial structures. This approach not only supports conceptual understanding but also encourages students to actively engage in problem-solving activities that stimulate higher-order thinking (Fitriya et al., 2022; Prahmana et al., 2023). Previous studies have reported that Ethno-RME can improve students' conceptual understanding and problem-solving skills; however, most of these studies focus primarily on cognitive outcomes and pay limited attention to affective aspects such as self-efficacy, especially at the elementary school level (Patriana et al., 2021; Aristiantika & Widiono, 2024).

Therefore, this study addresses the gap between ideal mathematics learning conditions and current classroom practices by examining the application of the Ethno-RME learning model using miniature traditional houses as learning media. Based on this background, this study is guided by the following research questions: (1) Does the Ethno-RME learning model significantly affect elementary school students' Higher Order Thinking Skills (HOTS)? and (2) Does the Ethno-RME learning model significantly affect students' self-efficacy in mathematics learning? This study simultaneously investigates its effect on elementary school students' Higher Order Thinking Skills (HOTS) and self-efficacy. By integrating local cultural contexts, realistic learning activities, and student-centered approaches, this research is expected to contribute empirical evidence to support the development of innovative, contextual, and culturally responsive mathematics learning models in elementary education.

THEORETICAL FRAMEWORK

Ethnoscience Learning Model in Mathematics Education

The Ethnoscience Learning Model is based on ethnomathematics theory, which views mathematics as part of cultural practices that develop within the lives of society. D'Ambrosio (1985) defines ethnomathematics as the mathematics practiced by specific cultural groups, meaning that learning mathematics cannot be separated from the social and cultural context of the learners. This understanding confirms that the mathematical concepts taught in schools are actually already present in the cultural activities of society, whether in the form of buildings, patterns, measurement systems, or spatial structures. Integrating cultural elements into mathematics learning allows students to understand concepts in a more meaningful and contextual way (Hasan et al., 2022; Ardiyanti et al., 2024).

The utilization of traditional houses as a learning medium for Ethnoscience represents the concrete application of ethnomathematics in the context of primary education. Traditional houses from the Ciayumajakuning region, such as the Kasepuhan Palace, Rangken House, Panjalin House, and Julang Ngapak House, have rich geometric characteristics that are full of flat and spatial building concepts. The roof structure, column shapes, and spatial layout of traditional houses incorporate mathematical concepts such as symmetry, area, perimeter, and ratios that can be analyzed mathematically (Sudianto & Santoso, 2022; Ridwan et al., 2024). Using miniature traditional houses helps students connect mathematical concepts with real-life experiences, making learning more relevant to everyday life.

Realistic Mathematics Education (RME) and Ethno-RME Integration

The theoretical foundation of the Ethnoscience Learning Model is strengthened by the Realistic Mathematics Education (RME) approach, which positions mathematics as a human activity. Freudenthal (1991) emphasized that mathematics learning should start from realistic situations that are meaningful to students. RME facilitates the construction of knowledge thru the exploration of contextual problems, discussion, and reflection. The principle of guided reinvention provides students with the opportunity to rediscover mathematical concepts thru directed guidance, while the principles of didactical phenomenology and self-developed models ensure that the learning context is relevant and supports the transition from concrete situations to abstract understanding (Haranas & Hidayati, 2021; Sahroni & Nurjanah, 2024).

The integration of ethnomathematics and RME gave rise to the Ethno-RME approach, which emphasizes the connection between local culture and students' life realities in mathematics learning. The Ethno-RME approach is designed to bridge the gap between formal mathematics and the informal mathematics that develops within a community's culture (Fitriya et al., 2022; Prahmana et al., 2023). Ethno-RME-based learning provides meaningful learning experiences thru the exploration of cultural objects and contextual problem-solving. Several studies indicate that this approach has a positive impact on elementary school students' conceptual understanding and problem-solving skills (Manurung et al., 2024; Toruan et al., 2024).

Higher Order Thinking Skills (HOTS)

The Ethnoscience Learning Model based on Ethno-RME has a strong relevance to the development of Higher Order Thinking Skills. HOTS is rooted in Bloom's Taxonomy, revised by Anderson and Krathwohl (2001), which places the abilities to analyze, evaluate, and create as the highest cognitive levels. Mathematics learning that integrates cultural contexts and real-world problems encourages students to move beyond rote memorization and understanding toward analytical, reflective, and creative thinking processes (Cahya et al., 2023; Ananda et al., 2023). The activity of analyzing miniature traditional houses and discussing problem-solving requires students to identify relationships between elements, evaluate strategies, and design logical and systematic solutions.

Beside enhancing HOTS, the Ethnoscience Learning Model also plays a role in developing students' self-efficacy. Self-efficacy is an individual's belief in their ability to organize and execute the necessary actions to achieve a specific goal (Bandura, 1997). Self-efficacy influences students' motivation, persistence, and learning strategies, thus contributing to academic success (Dewi Purnama Sari et al., 2021). The dimensions of self-efficacy, including level, strength, and generality, describe students' level of confidence, persistence, and ability to generalize their beliefs to various learning situations.

Self-Efficacy in Mathematics Learning

Ethno-RME-based learning using traditional houses provides a learning experience that supports the strengthening of students' self-efficacy. Early activities involving the introduction of simple mathematical concepts build students' confidence in their abilities. Gradual challenges accompanied by teacher guidance and peer support strengthen students' perseverance in completing tasks. Connecting mathematical concepts to various cultural contexts allows students to generalize their abilities to other situations (Zimmerman, 2000; Haloho et al., 2023). Learning that is relevant to students' lives and culture also encourages a positive attitude and a sense of confidence in learning mathematics.

Based on the description, the Ethnoscience Learning Model based on Ethno-RME has a strong theoretical foundation for improving elementary school students' Higher Order Thinking Skills and self-efficacy. Conceptually, Ethno-RME functions as the independent variable that influences students' HOTS and self-efficacy through the integration of cultural context, realistic mathematical problems, and active student engagement. This relationship forms a theoretical linkage in which contextual learning experiences mediate both cognitive and affective outcomes. The integration of cultural context, realistic activities, and active student engagement is the primary mechanism explaining the relationships between variables in this study. This theoretical framework serves as a conceptual foundation for instructional design, the development of HOTS and self-efficacy instruments, and the testing of the impact of the learning model in the context of primary education.

METHODS

Research Design

This study employed a pre-experimental research design using a one-group pretest–posttest approach to investigate the effect of the Ethno-Realistic Mathematics Education (Ethno-RME) approach on students' Higher-Order Thinking Skills (HOTS) and self-efficacy. The research adopted a quantitative method, in which measurements were conducted before and after the implementation of the Ethno-RME approach.

Prior to the treatment, students were given a pretest (O_1) to assess their initial levels of HOTS and self-efficacy. Subsequently, the treatment (X) was administered through mathematics learning activities using the Ethno-RME approach that integrates local cultural contexts. After the learning intervention was completed, a posttest (O_2) was conducted using the same instruments to measure changes or improvements in students' HOTS and self-efficacy.

Table 1. One Group Pretest-Postest Research Design

Pretest	Treatment	Posttest
O_1	X	O_2

Sample

The sample of this study consisted of fourth-grade elementary school students who participated in mathematics learning using the Ethno-RME approach. The participants were selected as a single experimental group without a comparison group, in accordance with the characteristics of a pre-experimental design.

Data Collection

Data were collected using several research instruments. The HOTS test was developed based on the indicators of analyzing, evaluating, and creating from Bloom's revised taxonomy (Anderson & Krathwohl, 2001). Instrument validity was examined through expert judgment, while reliability was tested using internal consistency analysis. The self-efficacy questionnaire was adapted from Bandura's (1997) self-efficacy dimensions and demonstrated acceptable reliability. Before and after the implementation of the Ethno-RME approach. In addition, a student response questionnaire was used to measure the Ethno-RME variable. This questionnaire aimed to identify students' responses to the learning process, including indicators of student engagement, understanding of mathematical material linked to local cultural contexts, and students' comfort during the learning activities.

Data Analysis

The collected data were analyzed quantitatively to determine the effect of the Ethno-RME approach on students' HOTS and self-efficacy. The analysis focused on comparing pretest and posttest results to identify improvements after the treatment. Data from the student response questionnaire were analyzed descriptively to describe students' perceptions and responses toward the implementation of the Ethno-RME learning approach.

RESULT

After the data met the normality assumption, the analysis continued with a multiple regression test. This test was used to determine the effect of the Ethno-RME model on two dependent variables, namely higher order thinking skills (HOTS) and self-efficacy of elementary school students. Through the regression results, the significance of the effect and the magnitude of the model's contribution to each variable can be seen. This analysis is important because an increase in HOTS is expected to be in line with an increase in students' self-confidence in facing mathematics.

Table 2. HOTS Regression Test Results

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	31.550	.347		90.980	.000
	Ethno-rme	.034	.008	.337	4.362	.000
a. Dependent Variable: y1						

From these results, the regression equation Y1 can be written in the form of standardized coefficients as follows:

$$Y1=31.550+0.034X$$

The equation shows that every one-unit increase in the Ethno-RME learning model variable (X) will increase students' HOTS scores (Y_1) by 0.034 points. The constant value of 31.550 indicates that if learning does not use the Ethno-RME model (X = 0), then students' HOTS scores are estimated to be at 31.550. Based on the significance results of the regression test, this effect is statistically significant ($p < 0.05$), so it can be concluded that the Ethno-RME learning model has a significant effect on students' higher-order thinking skills (HOTS).

In addition, the following are the results of the Y2 regression equation in the form of standardized coefficients:

Table 3. Self-Efficacy Regression Test Results

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.358	1.404		4.529	.000
	Ethno-rme	0.975	0.032	0.929	30.573	.000
a. Dependent Variable: y2						

From these results, the regression equation Y2 can be written in the form of a standardized coefficient as follows:

$$Y2=6.358+0.975X$$

This equation shows that every one-unit increase in the Ethno-RME learning model variable (X) will increase students' self-efficacy scores (Y_2) by 0.975. The constant value of 6.358 indicates that when learning does not use the Ethno-RME model (X = 0), students' self-efficacy scores are estimated to be 6.358.

This result is also supported by a significance value well below 0.05, which indicates that the Ethno-RME model has a significant effect on student self-efficacy. This means that the higher the application of the Ethno-RME approach, the higher the students' confidence in completing learning tasks. The high coefficient of determination also confirms that most of the variation in self-efficacy can be explained by the Ethno-RME model. In summary, the regression analysis indicates that the Ethno-RME learning model has a statistically significant effect on both students' Higher Order Thinking Skills (HOTS) and self-efficacy, as reflected by positive regression coefficients and significance values below 0.05 for both outcome variables.

DISCUSSION

The Effect of Ethno-RME on Students' HOTS

Based on the results of the study, the Ethno-RME learning model has been proven to have a positive and significant effect on improving students' higher-order thinking skills (HOTS). This finding is supported by the regression analysis, which shows a positive coefficient (B = 0.034) with a significance value of 0.000, indicating that the higher the implementation of Ethno-RME, the greater the improvement in students' HOTS. In addition, the N-Gain analysis places the improvement in HOTS in the moderate category, reflecting a meaningful cognitive development after the intervention. The effectiveness of Ethno-RME in enhancing HOTS can be explained by its core principle of connecting mathematical concepts with local cultural contexts that are familiar to students. By using miniature traditional houses as learning media, abstract mathematical concepts such as geometry, symmetry, area, and measurement become more concrete and accessible.

This contextualization encourages students to analyze structures, evaluate relationships between components, and formulate solutions, which aligns with the core dimensions of HOTS as defined in the revised Bloom's taxonomy (Anderson & Krathwohl, 2001). This finding is consistent with Bimantara (2024), who reported that culture-based mathematics learning increases student engagement and conceptual understanding. Higher engagement allows students to actively explore problems rather than passively receive information, which is essential for the development of higher-order thinking. Similar results were found by Putri & Aziz (2025), who demonstrated that ethnomathematics facilitates HOTS by making learning materials easier to understand and by involving students directly in problem-solving activities rooted in their cultural environment. Likewise, Apriyanti, Asrin, & Fauzi (2024) confirmed that the Realistic Mathematics Education (RME) approach stimulates higher-order thinking by presenting mathematical problems through real-life situations.

Furthermore, the increase in the average HOTS score and the growing proportion of students who achieved the minimum mastery criteria (KKM) indicate that Ethno-RME does not only benefit high-achieving students but also supports learners with initially lower abilities. This finding supports previous studies suggesting that contextual and culture-based learning provides more equitable learning opportunities by reducing cognitive barriers associated with abstract instruction (Solihin & Habibie, 2024; Wahyuningsih & Hidayati, 2025). Overall, Ethno-RME has strong potential to enhance students' HOTS, particularly when implemented consistently over a longer period and supported by systematic lesson planning that integrates cultural exploration, guided discussion, and reflective problem-solving.

The Effect of Ethno-RME on Student Self-Efficacy

The results of this study also indicate that the Ethno-RME learning model has a significant positive effect on students' self-efficacy. Regression analysis reveals a high positive coefficient (B = 0.975) with a significance value of 0.000, demonstrating that Ethno-RME strongly influences students' confidence in their mathematical abilities. This result is further supported by the N-Gain analysis, which shows a moderate increase in self-efficacy after the implementation of the learning model. The increase in self-efficacy can be attributed to the learning experiences provided by Ethno-RME, which emphasize active participation, meaningful contexts, and gradual challenges. The use of miniature traditional houses as contextual media allows students to interact with mathematical concepts through objects that are culturally familiar and emotionally engaging.

This familiarity reduces anxiety toward mathematics and helps students perceive mathematical tasks as achievable, thereby strengthening their belief in their own abilities. From a theoretical perspective, this finding aligns with Bandura's (1997) concept of self-efficacy, which emphasizes mastery experiences as the most influential source of confidence. Through Ethno-RME activities, students experience repeated successes in identifying geometric elements, measuring structures, and solving contextual problems. These mastery experiences contribute directly to the growth of self-efficacy, as students begin to believe that they are capable of understanding and solving mathematical problems independently. These findings are consistent with Bela & Wewe (2024), who showed that ethnomathematics-based modules are valid, practical, and effective in enhancing students' self-efficacy.

Similarly, Sulistyani et al. (2024) found that Ethno-RME encourages the use of diverse thinking strategies, such as visual and estimation strategies, which deepen understanding and reinforce students' confidence. Additional support comes from Lie, Suherman, & Utomo (2025) and Masruroh et al. (2022), who demonstrated that ethnomathematics-based learning improves both self-efficacy and problem-solving skills through meaningful, culturally connected learning experiences. Moreover, the observed increase in the average self-efficacy score suggests that Ethno-RME contributes not only to cognitive development but also to affective growth. Students become more willing to express ideas, participate in discussions, and attempt challenging problems without fear of making mistakes. This finding supports the view that culturally responsive and realistic learning environments foster positive emotional and motivational outcomes (Judijanto, 2025; Anggraini et al., 2025).

Overall, the Ethno-RME approach provides authentic, contextual, and participatory learning experiences that effectively shape students' self-efficacy in mathematics learning. By integrating cultural relevance with realistic problem-solving, Ethno-RME helps students develop a stronger sense of competence and confidence, which is essential for sustaining long-term engagement and success in mathematics. Despite these positive findings, this study has several limitations. The use of a pre-experimental one-group design without a control group limits the ability to make causal inferences and may affect the generalizability of the results. Future studies employing quasi-experimental or experimental designs with comparison groups are recommended to strengthen empirical validation of the Ethno-RME model.

CONCLUSION

The results of the study indicate that the Ethno-RME learning model based on miniature traditional houses has a significant effect on improving higher-order thinking skills (HOTS) and self-efficacy in elementary school students. Students not only showed progress in solving problems that required deep reasoning, but also had stronger self-confidence in facing mathematics learning. The integration of local culture in learning has been proven to create a more contextual and meaningful learning atmosphere, thereby encouraging active involvement and self-confidence among students. Based on these findings, Ethno-RME can be considered as an alternative effective learning strategy in an effort to improve the quality of mathematics education in elementary schools. As a recommendation, teachers are expected to be more creative in utilizing local cultural elements as learning media so that students gain learning experiences that are closer to their daily lives. Meanwhile, further research is recommended to expand the application of Ethno-RME through comparative experimental designs, longitudinal studies, and implementation in different mathematical topics or educational levels, in order to strengthen the generalizability and sustainability of its impact in order to enrich the empirical evidence regarding its effectiveness.

REFERENCES

Aka, K. A., & Afandi, A. N. H. (2023). Urgensi pendekatan pembelajaran tematik-terpadu pada era VUCA: tantangan di Sekolah Dasar. *Semdikjar* 6, 2000–2011. https://doi.org/10.29407/vt866228

Akhyar, M., Remiswar, & Khadijah. (2024). Pelaksanaan evaluasi P5 dalam meningkatkan kreativitas dan kemandirian siswa. *Instructional Development Journal*, *7*, 362–372. https://doi.org/10.24014/idj.v7i2.30158

Ananda, Aulia, Sulasteri, Sri, Angriani, Andi Dian, Kusumayanti, Andi, & Halimah, Andi. (2023). Pengembangan instrumen tes tipe higher order thinking skills (hots) pokok bahasan bangun ruang sisi datar. *Al Asma : Journal of Islamic Education*, *5*(2), 114–122. https://doi.org/10.24252/asma.v5i2.42850

Anderson, & Krathwohl. (2001). Blooms taxonomy revised - understanding the new version of bloom's taxonomy. *A taxonomy for learning, teaching, and assessing: a revision of bloom's taxonomy of educational objectives*, *1*(1), 1–8.

Anggraini, Fanisa Putri, Selamata, Viora, Rizky, Arif, & Safitri, Sani. (2025). Pendekatan humanistik dalam pembelajaran ips: memanusiakan siswa dalam proses pendidikan. *SOSIAL: Jurnal Ilmiah Pendidikan IPS*, *3*(2), 201–216. https://doi.org/https://doi.org/10.62383/sosial.v3i2.790

Ardiyanti, Bela, Choirudin, Choirudin, & Ningsih, Eka Fitria. (2024). Etnomatematika bangunan pionering pramuka terhadap minat dan kreativitas siswa. *Jurnal Penelitian Tindakan Kelas*, *1*(3), 156–161. https://doi.org/10.61650/jptk.v1i3.509

Bela, M. E., & Wewe, M. (2024). Integrating ethnomathematics into a transformation geometry module to enhance self-efficacy. *Al-Jabar: Jurnal Pendidikan Matematika*, *15*(2), 547. https://doi.org/10.24042/ajpm.v15i2.24564

Bimantara, A. R. (2024). Persepsi etnomatematika dalam pembelajaran matematika. *Indiktika : Jurnal Inovasi Pendidikan Matematika*, *7*(1), 148–159. https://doi.org/10.31851/indiktika.v7i1.16993

Cahya, Nilam, Astuti, Henni Puji, Rikhayana, Nur Aini, Wahyu, Mareta, Hanifah, Nur, Ermawati, Diana, Guru, Pendidikan, & Dasar, Sekolah. (2023). Analisis kemampuan pemecahan masalah matematis siswa dalam menyelesaikan soal hots pada kelas iii sdn 1 bumirejo. *Taksonomi Jurnal Pendidikan Dasar*, *3*(2), 93–99. https://doi.org/https://doi.org/10.35326/taksonomi.v2i1.3812

D'Ambrosio, Ubiratan. (1985). Ethnomathematics and its place in the history and pedagogy of mathematics. *For the Learning of Mathematics*, 5(February 1985), 44-48 (in 'Classics').

Farhin, N., Setiawan, D., Waluyo, E., & Semarang, U. N. (2023). Meningkatkan hasil belajar siswa SD melalui pembelajaran berbasis proyek : studi kasus di SD sukosari. *Jurnal Penelitian Tindakan Kelas*, *1*(2), 132–136. https://doi.org/10.61650/jptk.v1i2.144

Fitriya, Devi, Amaliyah, Aam, Pujianti, Pujianti, & Fadhillahwati, Nur fauziah. (2022). Analisis keterampilan berfikir kritis siswa sekolah dasar pada pembelajaran matematika kurikulum 2013. *JOURNAL SCIENTIFIC OF MANDALIKA (JSM) e-ISSN 2745-5955 | p-ISSN 2809-0543*, *3*(5), 362–366. https://doi.org/10.36312/10.36312/vol3iss5pp362-366

Haloho, Bongguk, Napitu, Ulung, & Arent, Ease. (2023). Pengaruh kreatifitas guru dalam pembelajaran tematik terpadu terhadap peningkatan minat belajar siswa pada pendidikan dasar. *Journal on Education*, 5(4), 16457–16469. https://doi.org/10.31004/joe.v5i4.2806

Hasan, Muhammad Nur, Nuroniyyah, Aisyahtun, & Anis Silwatud Diyana. (2022). Implementasi etnomatematika berbasis alquran sebagai rujukan pembelajaran teori bilangan. *Al Furqan: Jurnal Ilmu Al Quran Dan Tafsir*, 5(1), 143–159. https://doi.org/10.58518/alfurqon.v5i1.1787

Haranas, denny mulyani, & Hidayati, Abna. (2021). *Pengembangan LIT topik-topik keliling dan luas persegi panjang berbasis pendekatan realistic mathematic education di sekolah dasar*. 5(1), 77–87. https://doi.org/https://doi.org/10.31004/basicedu.v5i1.567

Judijanto, Loso. (2025). Membangun generasi berkarakter melalui pendidikan berbasis budaya positif: sebuah tinjauan. *PESHUM : Jurnal Pendidikan, Sosial Dan Humaniora*, 4(3), 4351–4370. https://doi.org/10.56799/peshum.v4i3.8956

Lestari, A. P., Kusumaningrum, D. S., Nurapriani, F., Buana, U., Karawang, P., Artikel, I., Datar, B., & Sunda, R. T. (2024). Integrasi etnomatematika dalam pembelajaran bangun datar segi empat berbasis kearifan lokal untuk meningkatkan pemahaman matematika. *Jurnal Inovasi Penelitian Dan Pengabdian Masyarakat*, 4(2), 161–171. https://doi.org/10.53621/jippmas.v4i2.369

Lestari, M., Indah, M., Apriyanti, N., Ningrum, N. C., Oktarini, O., & Arman, A. (2024). Analisis video animasi berbasis etnomatematika pada penerapan p5 kurikulum merdeka. *Jurnal Pendidikan Guru Sekolah Dasar*, *1*(3), 9. https://doi.org/10.47134/pgsd.v1i3.262

Lie, N., Suherman, H., & Utomo, B. (2025). *Mindfulness dan kecerdasan emosional sebagai prediktor self-efficacy siswa sma: pendekatan psikologis dan pendidikan*. *7*(1), 384–396. https://doi.org/10.37364/jireh.v7i1.353

Manurung, Rosida Tiurma, Saputra, Nanda, Oktaviani, Reni, Nurmalina, Nurmalina, Herman, Herman, Batubara, Junita, & others. (2024). Improving students' awareness about sustainable development goals (sdgs) through literary text: a case on language teaching. *Library of Progress-Library Science, Information Technology & Computer*, 44(2).

Masruroh, Zaenuri, Z., Walid, W., & Waluya, S. B. (2022). Kemampuan pemecahan masalah matematis pada pembelajaran berbasis etnomatematika. *Jurnal Cendekia: Jurnal Pendidikan Matematika*, 6(2), 1751–1760. https://doi.org/10.31004/cendekia.v6i2.1056

Meliani Gracia, & Margaretha Lidya Sumarni. (2025). Analisis implementasi alat peraga sederhana untuk meningkatkan pemahaman siswa pada pembelajaran matematika dikelas v sd negeri 02 bengkayang. *Pendas: Jurnal Ilmiah Pendidikan Dasar*, *10*(02), 233–244. https://doi.org/10.23969/jp.v10i02.24657

Miftahul Jannah, & Miftahul Hayati. (2024). Pentingnya kemampuan literasi matematika dalam pembelajaran matematika. *Griya Journal of Mathematics Education and Application*, 4(1), 40–54. https://doi.org/10.29303/griya.v4i1.416

Nurhasanah, A., Pribadi, R. A., & Ismawati, F. (2022). Penerapan metode pembelajaran blended learning dalam meningkatkan motivasi dan pemahaman konsep belajar siswa di sekolah dasar. *Jurnal Ilmiah Telaah*, *7*(1), 20. https://doi.org/10.31764/telaah.v7i1.6694

Prahmana, Rully Charitas Indra, Arnal-Palacián, Mónica, Risdiyanti, Irma, & Ramadhani, Rahmi. (2023). Trivium curriculum in ethno-RME approach: an impactful insight from ethnomathematics and realistic mathematics education. *Jurnal Elemen*, 9(1), 298–316. https://doi.org/10.29408/jel.v9i1.7262

Putri, E. A. E., & Aziz, A. (2025). *Efektivitas pembelajaran etnomatematika pada tradisi hasil panen dalam pemahaman konsep bilangan bulat dan pecahan*. 5(June), 711–721. https://doi.org/10.51574/kognitif.v5i2.3137

Rahmadani, A., Wandini, R. R., Dewi, A., Zairima, E., & Putri, T. D. (2022). Upaya meningkatkan berpikir kritis dan mengefektifkan pendekatan kontekstual dalam pembelajaran matematika efforts to improve critical thinking and effective contextual approaches in mathematics learning. *Edu Society: Jurnal Pendidikan, Ilmu Sosial, Dan Pengabdian Kepada Masyarakat*, 2(1), 427–433. https://doi.org/10.56832/edu.v2i1.167

Ramdani, N. S., Nugraha, H., & Hadiapurwa, A. (2021). Potensi pemanfaatan media sosial tiktok sebagai media pembelajaran dalam pembelajaran daring. *Akademika Jurnal Teknologi Pendidikan*, *10*(02), 425–436. https://doi.org/10.34005/akademika.v10i02.1406

Ridwan, I. M., Yuliansyah, H. , & Rahadi, P. F. (2024). Representasi kultural dalam desain rumah julang ngapak : analisis semiotika pada rumah adat sunda. Jurnal ARS University, 5(2), 52–61. https://doi.org/https://doi.org/10.51977/wacadesain.v5i2.1926

Sahroni, Alfian, & Nurjanah. (2024). *Implementasi pendidikan matematika realistik : analisis pengalaman dan dampaknya terhadap pembelajaran siswa*. 2(2), 229–236. https://doi.org/https://doi.org/10.61798/get.v2i2.207

Solihin, Annas, & Habibie, Ramadhan Kurnia. (2024). Pengaruh Integrasi Budaya Karapan Sapi Berbasis Etnomatematika terhadap Hasil Belajar Geometri Siswa Sekolah Dasar. *Jurnal Penelitian Pendidikan Guru Sekolah Dasar*, *12*(8), 1466–1475. Retrieved from https://ejournal.unesa.ac.id/index.php/jurnal-penelitian-pgsd/article/view/61971

Toruan, Heldina L., Simamora, Rustam Effendy, & Rahayu, Setia Widia. (2024). Efektivitas realistic mathematics education berfikir kritis matematis siswa. *EDU-MAT: Jurnal Pendidikan Matematika*, 2759. https://doi.org/http://dx.doi.org/10.20527/edumat.v12i2.19875

Wahyuningsih, Baiq Yuni, & Hidayati, Vivi Rachmatul. (2025). Analisis pemahaman mahasiswa calon guru sekolah dasar terhadap teori belajar dan standar proses nctm dalam konteks pembelajaran matematika. *Cartesius : Jurnal Pendidikan Matematika*, *8*(1), 24–36.