Journal of Mathematics Education
Website: http://usnsj.id/index.php/JME
Email: pengelolajme@gmail.com
p-ISSN 2528-2468; e–ISSN 2528-2026

DOI: https://doi.org/10.31327/jme.v11i1.2694

STUDENTS' MATHEMATICAL PROBLEM-SOLVING ABILITY THROUGH THE CORE–RME MODEL VIEWED FROM FIELD DEPENDENT AND FIELD INDEPENDENT COGNITIVE STYLES

Ngganiyatur Rochmah*[1], Sikky El Walida[2]
[1,2] Universitas Islam Malang

Article Info

Article history:

Received Jan 24, 2026
Revised Jan 28, 2026
Accepted Jan 31, 2026

Keywords:

Mathematical problem-solving skills
CORE–RME model
System of Three Variable Linear Equations
Cognitive style
Classroom action research

ABSTRACT

This study aims to improve students' mathematical problem-solving skills in Three Variable Linear Equation Systems (TVLES) through the application of the CORE–RME (Connecting, Organizing, Reflecting, Extending) learning model in terms of Field Independent (FI) and Field Dependent (FD) cognitive styles. The research used a Classroom Action Research (CAR) approach conducted in two cycles on students of class X-A at a private high school in Malang Regency. Data were collected through mathematical problem-solving ability tests, observations, interviews, and the Group Embedded Figures Test (GEFT), then analyzed descriptively, qualitatively, and quantitatively. The results showed that the application of the CORE–RME model was able to improve students' mathematical problem-solving skills, as indicated by an increase in mastery from 73.5% in cycle I to 81.4% in cycle II. Student activity and learning implementation also increased at each stage of CORE–RME. In terms of cognitive style, FI students were more independent in developing solution strategies, while FD students experienced improvement through scaffolding and collaborative interaction. These findings indicate that the CORE–RME learning model can support the improvement of students' mathematical problem-solving skills in SPLTV by accommodating differences in cognitive styles

Corresponding Author:

Ngganiyatur Rochmah,
Master of Mathematics Education,
Universitas Islam Malang, Indonesia
Email: 22502072001@unisma.ac.id

How to Cite:

Rochmah, N., & Walida, S. E. (2026). Students' Mathematical Problem-Solving Ability Through The Core–Rme Model Viewed From Field Dependent And Field Independent Cognitive Styles. *JME: Journal of Mathematics Education*, *11*(1), 39-49

1. INTRODUCTION

Mathematical problem-solving skills are one of the key competencies that students must possess in mathematics learning (Prayoga, Safitri, Fahmi, & Damanik, 2021). This ability reflects students' capacity to understand problems, design solution strategies, apply mathematical concepts appropriately, and evaluate the solutions obtained (Gumanti, Maimunah, & Roza, 2022). In the context of modern mathematics education, problem solving is not only seen as the ultimate goal of learning, but also as a means to develop logical, critical, and reflective thinking skills (Szabo et al., 2020; Vadivu et al., 2025). Therefore, improving mathematical problem-solving skills is an important indicator of the quality of mathematics learning in schools. However, various findings in the field show that students' mathematical problem-solving skills are still relatively low, especially in materials that require conceptual understanding and high-level reasoning. One of the materials that often causes difficulties is the Three Variable Linear Equation System (TVLES). This material requires symbolic representation skills, mathematical modeling, and simultaneous interconnection between algebraic concepts.

Based on the researcher's initial observations at a secondary school in Malang Regency, students tend to have difficulty understanding TVLES problems presented in the form of story questions. In practice, many students still rely on memorizing the steps to solve problems without adequate understanding of the TVLES procedure, thus experiencing obstacles when faced with problems that require reasoning, modeling, and mathematical problem-solving strategies. This problem cannot be separated from the learning approach used in the classroom. Mathematics learning, which is still predominantly conventional and teacher-centered, tends to emphasize mastery of procedures and final results, while the students' thinking process in solving problems receives less attention (Fitriana & Waswa, 2024; Österman & Bråting, 2019). As a result, students have limitations in relating their prior knowledge to the TVLES concept, reflecting on the steps taken to solve problems, and developing mathematical problem-solving strategies independently. Therefore, a learning model is needed that can facilitate active student involvement and support the development of mathematical problem-solving skills.

One alternative learning model that has the potential to address these issues is the CORE (Connecting, Organizing, Reflecting, Extending) model combined with the Realistic Mathematics Education (RME) approach (Dinglasan, Caraan, & Ching, 2023; Sari & Karyati, 2020; Son & Ditasona, 2020). The CORE–RME model guides students to relate contextual problems to mathematical concepts, organize the steps to solve them systematically, and apply appropriate strategies in solving mathematical problems (Son & Ditasona, 2020). These characteristics are relevant to TVLES learning, which requires the integration of algebraic reasoning and problem-solving strategies (Sadiah, Suhendra, & Herman, 2024). Therefore, the application of the CORE–RME model is considered capable of overcoming problems and supporting the improvement of students' mathematical problem-solving abilities in TVLES material, especially in story problems. However, the effectiveness of a learning model is not only determined by the characteristics of the model itself, but also by differences in students' cognitive characteristics in processing information and solving mathematical problems.

One influential individual characteristic is cognitive style, which consists of Field Independent (FI) and Field Dependent (FD) cognitive styles (Hasbullah, 2020). Students with FI cognitive styles tend to be able to separate relevant information from complex contexts, think analytically, and be more independent in designing and evaluating mathematical problem-solving strategies (Ponte, 2020). Conversely, students with an FD cognitive style tend to view problems globally, are more dependent on context and external assistance, and require guidance or scaffolding in understanding the structure of the problem and the steps to solve it (Izzatin, Waluyo, Rochmad, & Wardono, 2020). These differences in characteristics affect how students understand problems, organize solution steps, and reflect on the solutions obtained in mathematics learning (Rejeki & Rahmasari, 2022). In the context of mathematics learning, these differences often do not receive adequate attention, so that the application of learning models does not fully accommodate the diversity of students' ways of thinking.

Learning efforts are needed not only to emphasize the application of innovative models, but also to consider students' cognitive styles in improving mathematical problem-solving skills (Prasetiyo et al., 2026; Prasetiyo & Walida, 2026). Previous studies have shown that the CORE model and RME approach have the potential to increase students' cognitive engagement and mathematical problem-solving skills, while cognitive styles influence how students understand and solve mathematical problems (Son & Ditasona, 2020). In addition, other studies have also revealed that differences in cognitive styles affect the way students understand problems, develop strategies, and interpret the mathematical solutions obtained (Rejeki & Rahmasari, 2022). However, studies that integrate the CORE–RME model by considering students' cognitive styles, especially in TVLES material, are still limited. Therefore, researchers have attempted to fill the gap in previous research so that the novelty of this study lies in the integration of the CORE–RME model and students' cognitive styles (Field Independent and Field Dependent) as an effort to improve mathematical problem-solving skills, particularly in TVLES material.

The purpose of this study is to improve students' mathematical problem-solving abilities in TVLES material through the application of the CORE–RME model in terms of students' cognitive styles. This study is expected to not only provide practical contributions to improving classroom learning but also enrich theoretical studies related to the integration of innovative learning models and students' cognitive characteristics in mathematics learning.

2. METHOD

This study uses a classroom action research (CAR) approach, which aims to improve and enhance the quality of mathematics learning in a reflective and sustainable manner (Ulya & Siswanto, 2024). The selection of CAR was based on the characteristics of the problems found in the classroom, namely the low mathematical problem-solving abilities of students in the Three Variable Linear Equation System (TVLES) material, as well as the need for a learning action that can be applied, observed, and reflected upon directly. Through CAR, the application of the CORE-RME learning model can be evaluated gradually to determine its effectiveness in improving students' mathematical problem-solving skills by considering differences in cognitive styles.

This study was conducted at a private high school in Malang Regency, East Java. The research subjects were 24 students in class X-A, who were selected based on the researcher's initial observations, which showed that the 10th-grade students at the school still had low mathematical problem-solving skills, especially in TVLES material, in solving story problems that required mathematical modeling and reasoning. Thus, the research subjects were considered relevant for exploring the application of the CORE–RME model in terms of students' cognitive styles.

The research was conducted in the even semester of the 2025/2026 academic year in January 2026. Procedurally, this research was carried out through the stages of planning, implementation of actions, observation, and reflection (Abdullah & Zohra, 2020). The cycle flow in classroom action research can be seen in detail in Figure 1.

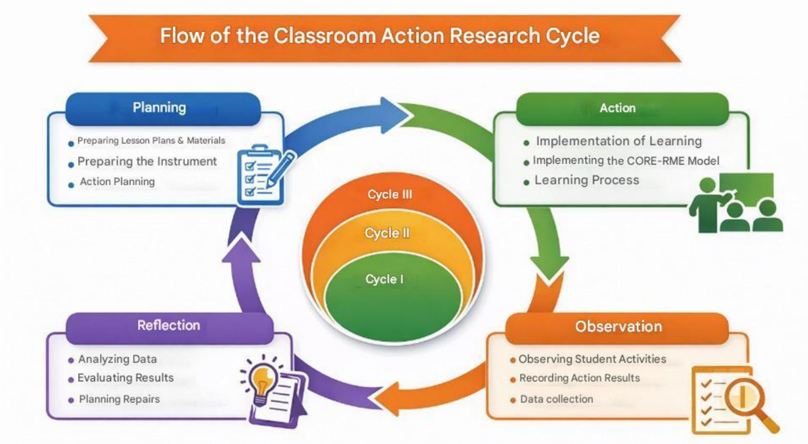

Figure 1. Classroom Action Research Cycle Flow

Data collection in this study was carried out using several complementary, namely mathematical problem-solving ability tests, observation, interviews, and Field Independent and Field Dependent cognitive style measurement instruments so that the data obtained could be analyzed by considering the differences in students' cognitive characteristics. The mathematical problem-solving ability test was validated by expert judgment, while the cognitive style instrument adopted a standardized GEFT test. The data obtained were analyzed descriptively, qualitatively, and quantitatively. The results of the analysis formed the basis for reflection and determination of the success of the action, as well as providing an overview of the effectiveness of the CORE–RME model in improving students' mathematical problem-solving skills in SPLTV material.

The success of this classroom action research was determined based on the integration of quantitative and qualitative data obtained during the implementation of the action. The criteria for the success of the cycle in this study can be seen in Table 1.

Table 1. Criteria for Cycle Success

Instrument	Success Criteria	Data Collection Techniques
Mathematical problem-solving ability test questions	≥ 75% of students achieve the criteria for mathematical problem-solving ability in SPLTV material and show an increase in scores from the previous cycle	Written test
Observation sheets of student activities and learning implementation	≥ 75% of indicators of student activities and learning implementation at each stage of CORE–RME (connecting, organizing, reflecting, extending) are well implemented	Observation
Student interview guidelines	≥ 75% of students can express their understanding of the problem, solution strategies, and reflections on the solution more clearly than in the previous cycle	Interview

Based on the table above, this classroom action research cycle will be terminated if all the predetermined success criteria have been met, namely at least 75% of students show improvement in mathematical problem-solving skills, optimal learning activities at each stage of CORE–RME, and the ability to better reflect on solution strategies. However, if the results show that one or more of these criteria have not been met, the research will continue to the next cycle by making improvements to the planning and implementation stages based on the findings from the previous cycle. Thus, the action process is carried out continuously until the expected improvement in mathematical problem-solving skills is achieved.

3. RESULTS AND DISCUSSION

3.1. Results

Before the implementation of actions in cycle I, researchers first conducted pre-cycle activities as an initial preparation stage. These activities began with the Group Embedded Figures Test (GEFT) to identify students' cognitive styles, namely Field Independent (FI) and Field Dependent (FD). Based on the GEFT test results, variations in the ability to process information and understand problem structures were obtained, so these results were used as the basis for forming heterogeneous learning groups. Each group consisted of a combination of FI and FD students to create complementary interactions in the learning process. In addition, the researchers also conducted a pre-test to determine the students' initial abilities in the context of problem solving. Based on the pre-test results, most students scored below the minimum passing grade or less than 75, which indicates that students' mathematical problem-solving abilities at the initial stage are still in the low category. The implementation of actions in cycle I, which consisted of three meetings, focused on the application of the CORE-RME (Connecting, Organizing, Reflecting, Extending) learning model to the material on Three Variable Linear Equation Systems (SPLTV). The learning activities were designed so that students were able to connect previous concepts to new problem contexts, organize the steps for solving them, and reflect on the results of their work. The results of the mathematical problem-solving test showed that some students still had difficulty converting story problems into SPLTV models and choosing the right solution strategy.

On the other hand, observation results based on student activities and learning implementation show positive developments in the application of the CORE–RME learning model. This indicates that learning activities have been effective and participatory. Students appear to be more active in asking questions, discussing, and expressing ideas during the learning process. The researcher's role as a facilitator was also optimal in guiding interactions between group members, especially when FD students needed guidance in understanding the structure of the problem.

In line with the observation results, student interviews provided a qualitative picture that supported the previous quantitative findings. Most students stated that the application of the CORE–RME learning model made it easier for them to understand the SPLTV concept because it was related to real situations close to their daily lives. They also felt helped by the reflection process, which allowed them to reevaluate the steps they had taken to solve the problem. Based on the interview results, most students were able to express their understanding, strategies, and reflections well, indicating that this model not only improved cognitive aspects but also fostered reflective awareness in mathematical thinking. The Cycle I results data, based on the mathematical problem-solving ability test, observation, and interview results, are presented in table 2.

Table 2. Cycle I Results Data

Instrument	Success Criteria	Cycle I Results	Successful/Needs Improvement
Mathematical problem-	≥ 75% of students achieved the criteria	The cycle results showed that only 73.5% of the 24	Needs Improvement

solving test questions	for mathematical problem-solving proficiency in SPLTV material and showed improvement from the pretest	students in the class achieved the criteria for mathematical problem-solving proficiency in the SPLTV material	
Student observation sheets and learning implementation	≥ 75% of student activity indicators and learning implementation at each stage of CORE–RME (connecting, organizing, reflecting, extending) were carried out well	The cycle results showed that student activity and learning implementation at each stage of CORE–RME had reached 85.7%	Successful
Student Interview Guidelines	≥ 75% of students were able to express their understanding of the problem, solution strategies, and reflections on the solution well	The cycle results showed that students were able to express their understanding of the problem, solution strategies, and reflections on the solution, reaching 85%	Successful

Based on table 2 of Cycle I Results Data, it can be concluded that the implementation of learning in cycle I showed mostly positive results, but did not fully meet the success criteria for all instruments. Student activities and the implementation of learning through the CORE-RME stages have gone well, indicated by an achievement of 85.7%, thus being declared successful. In addition, students' ability to express problem understanding, problem-solving strategies, and reflection on solutions has also reached 85%, which indicates success from a qualitative aspect based on interviews. However, in the aspect of mathematical problem-solving ability through tests, the percentage of students who achieved completeness only reached 73.5% of 24 students, still below the minimum criterion of 75%. Therefore, this instrument is stated to need improvement and become the focus of improvement in the next cycle. Overall, the results in cycle I showed significant improvement compared to pre-cycle, both in terms of problem-solving skills, learning activities, and student involvement in the reflection process. However, because not all success indicators had been achieved, the results of the Cycle I reflection were used as a basis for refining the actions in Cycle II, with a focus on strengthening conceptual deepening, providing more targeted scaffolding for FD students, and emphasizing reflection activities so that learning outcomes could improve overall.

Based on the results of the reflection in cycle I, the researcher refined the learning actions in cycle II by emphasizing the strengthening of conceptual understanding and increasing the effectiveness of each stage of the CORE–RME learning model. In this cycle, the teacher provided more targeted scaffolding, especially to students with a Field Dependent (FD) cognitive style, so that they could be more independent in developing problem-solving strategies. In addition, the reflecting and extending stages were optimized through group discussions and joint conclusions, so that students could review the steps taken to solve problems and expand the application of concepts. These improvements showed significant results, as illustrated in table 3, which contains data on the results of each assessment instrument in cycle II.

Table 3. Cycle II Results Data

Instrument	Success Criteria	Cycle II Results	Successful/Needs Improvement
Mathematical problem-solving test questions	≥ 75% of students achieved the mathematical problem-solving proficiency criteria for SPLTV material and showed an increase in scores from the previous cycle	The cycle results showed that 81.4% of 24 students achieved the proficiency criteria. This indicates a significant improvement in mathematical problem-solving skills in the SPLTV material	Successful
Student observation sheets and learning implementation	≥ 75% of student activity indicators and learning implementation in each CORE–RME stage were carried out well compared to the previous cycle	The cycle results show that student activity and learning implementation in each CORE–RME stage reached 94%	Successful
Student Interview Guidelines	≥75% of students were able to express their understanding of the problem, solution strategies, and reflections on the solution well	The cycle results showed that 96% of students were able to express their understanding of the problem, solution strategies, and reflections on the solution well	Successful

The data in table 3 shows that all research success indicators were achieved in cycle II. The percentage of mathematical problem-solving ability, student activity, and implementation of the CORE–RME learning model, and interview results showed a significant increase. Thus, the actions in cycle II can be declared successful because all research targets were achieved and the CORE–RME learning model proved to be effective in improving students' mathematical problem-solving skills, both in the Field Independent and Field Dependent groups. To reinforce the findings based on a comparison between cycle I and cycle II, this improvement is shown in figure 2.

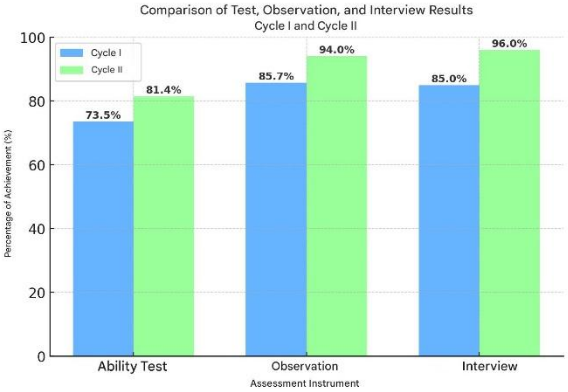

Figure 2. Cycle Improvement Diagram

3.2. Discussion

In cycle I, students' mathematical problem-solving skills still did not fully meet the success criteria, particularly based on test results that fell below the minimum completion threshold. This indicates students' low mathematical problem-solving skills, further exacerbated by the relatively conventional learning environment. This situation necessitates the implementation of learning models that emphasize active student involvement in the thinking process. The implementation of the CORE–RME (Connecting, Organizing, Reflecting, Extending) learning model has shown positive results in improving students' mathematical problem-solving skills in the subject of Three Variable Linear Equation Systems (TVLES). Through structured learning stages, students are trained to identify important information, organize solution strategies, and reflect on the steps they have taken to find the right solution. This approach not only encourages students to understand the solution procedure but also helps them connect concepts and apply them to new situations. This shows that the CORE–RME learning model is capable of developing analytical, logical, and reflective thinking skills, which are key components in mathematical problem solving. These findings are in line with the research by Dinglasan et al. (2023) and Son & Ditasona (2020), which confirms that the integration of CORE and RME is effective in improving critical thinking skills and mathematical problem-solving strategies through contextual learning activities.

In addition, student involvement in each stage of CORE shows that the organizing and reflecting processes play an important role in improving mathematical problem-solving skills. Through reflection activities, students review the steps they have taken to solve problems, evaluate the accuracy of their strategies, and correct their mistakes independently. Meanwhile, the organizing stage helps students organize mathematical ideas logically and systematically, making it easier for them to devise effective solution strategies. These two stages synergistically strengthen students' analytical and evaluative abilities, which are important components in the mathematical problem-solving process, indicating the need for further emphasis on the organizing and reflecting stages in the next cycle. These findings are in line with research by Sari & Karyati (2020), which confirms that organizing ideas and deep reflection are key factors in building mathematical connections and critical thinking skills in students. Thus, the application of the CORE–RME learning model not only enriches conceptual understanding but also optimizes the reflective thinking process, which is essential for improving the effective solving of mathematical problems.

Differences in students' cognitive styles also show their own dynamics in the application of the CORE–RME learning model. Students with a Field Independent (FI) cognitive style tend to be more independent in identifying relevant information and developing solution strategies, while Field Dependent (FD) students rely more on social interaction and teacher guidance. However, collaborative activities and scaffolding in the CORE–RME model help FD students achieve significant progress in understanding problem structures and finding solutions. This view is in line with Hasbullah (2020) and Rejeki & Rahmasari (2022), who explain that cognitive differences influence how students construct knowledge. In the context of the CORE–RME model, collaboration between FI and FD students creates a balance in thinking, whereby FI students strengthen their analytical logic, while FD students enrich their contextual understanding. Thus, the synergy between these two cognitive styles encourages a more comprehensive thinking process, so that students' mathematical problem-solving abilities can develop optimally through interaction and reflection.

In addition, the integration between the CORE stages and the RME approach also shows strong synergy in building a meaning-oriented learning process. Context-based learning encourages students to relate TVLES concepts to real experiences, while reflection strengthens the ability to generalize and transfer concepts to other situations. These findings indicate that the CORE–RME learning model is able to create a collaborative learning climate and encourage comprehensive student engagement. This view is in line with the theory of Szabo et al. (2020), which emphasizes that 21st-century mathematics learning must integrate metacognitive reflection and connections to contextual problems so that problem-solving skills can develop properly. Thus, the CORE–RME learning model plays an important role in shaping students who are not only able to find answers but also understand the reasons behind the steps to solve them.

Overall, the application of the CORE–RME learning model has proven effective in improving students' mathematical problem-solving skills. Through the stages of Connecting, Organizing, Reflecting, and Extending, students are guided to understand problems, develop solution strategies, and review the steps they have taken to find the right solution. This approach helps students relate mathematical concepts to real-world contexts so that the problem-solving process becomes more focused and meaningful. In line with the opinions of Fitriana & Waswa (2024) contextualize that mathematics learning provides opportunities for students to understand concepts deeply and apply them in problem-solving. Thus, the CORE–RME learning model can be seen as an effective learning model in optimizing and improving mathematical problem-solving skills.

4. CONCLUSION

The application of the CORE–RME (Connecting, Organizing, Reflecting, Extending) learning model was shown to improve students' mathematical problem-solving skills in Three Variable Linear Equation Systems (TVLES). Through structured and context-based learning stages, students were guided to understand problems, organize solution strategies, and reflect systematically on the steps taken. The results of the classroom action research indicated an improvement in students' mathematical problem-solving abilities from Cycle I to Cycle II. Through structured and context-based learning stages, students are trained to understand problems, organize solution strategies, and systematically reflect on the steps they have taken. The results of classroom action research show an increase in the completeness of students' mathematical problem-solving abilities from cycle I to cycle II.

In addition, the application of the CORE–RME model, viewed from the cognitive styles of Field Independent (FI) and Field Dependent (FD), shows that differences in students' cognitive characteristics can be accommodated well in the learning process. FI students tend to be more independent in analyzing and developing problem-solving strategies, while FD students experience an increase in ability through scaffolding and collaborative interaction. Thus, the CORE–RME learning model not only improves students' mathematical problem-solving abilities as a whole, but is also able to facilitate diversity in cognitive styles in TVLES learning. These findings imply that the CORE–RME model can be considered as an alternative learning approach to support mathematical problem-solving skills in algebraic topics. However, this study was limited to a single class and material, suggesting the need for further research in broader contexts.

REFERENCES

Abdullah, M., & Zohra, A. (2020). A Theoretical framework for leadership in islamic organizations. *Jurnal Of Islamic Business and Management*, *11*(1), 42–44.

Dinglasan, J. K. L., Caraan, D. R. C., & Ching, D. A. (2023). Effectiveness of Realistic Mathematics Education Approach on Problem-Solving Skills of Students. *International*

Journal of Educational Management and Development Studies, *4*(2), 64–87. https://doi.org/10.53378/352980

Fitriana, H., & Waswa, A. N. (2024). The Influence of a Realistic Mathematics Education Approach on Students' Mathematical Problem Solving Ability. *Interval: Indonesian Journal of Mathematical Education*, *2*(1), 28–33. https://doi.org/10.37251/ijome.v2i1.979

Gumanti, G., Maimunah, M., & Roza, Y. (2022). Kemampuan Pemecahan Masalah Matematis Siswa SMP Kecamatan Bantan. *Prisma*, *11*(2), 310. https://doi.org/10.35194/jp.v11i2.2301

Hasbullah, S. U. S. (2020). Dependent on Students ' Mathematical Problem Solving. *Aksioma Jurnal Program Studi Pendidikan Matematika*, *9*(2), 387–394.

Izzatin, M., Waluyo, S. B., Rochmad, & Wardono. (2020). Students' cognitive style in mathematical thinking process. *Journal of Physics: Conference Series*, *1613*(1). https://doi.org/10.1088/1742-6596/1613/1/012055

Österman, T., & Bråting, K. (2019). Dewey and mathematical practice: revisiting the distinction between procedural and conceptual knowledge. *Journal of Curriculum Studies*, *51*(4), 457–470. https://doi.org/10.1080/00220272.2019.1594388

Ponte, F. (2020). COGNITIVE STYLE (FDI-Field Dependence-Independence): a motivational support for learning. *Neuroscience and Neurological Surgery*, *7*(1), 01–02. https://doi.org/10.31579/2578-8868/144

Prasetiyo, M. M., & Walida, S. El. (2026). *Profile Of Ethnomatematics Implementation In Mathematics Learning To Stimulate Students ' Cognitive Development*. *10*(2025), 333–346.

Prasetiyo, M. M., Walida, S. El, Info, A., & Outcomes, L. (2026). *Improvement Of Learning Results Through The Weekly Project Of Problem Scheme With The Teaching At The Right Level Approach*. 15–29.

Prayoga, M. F., Safitri, D., Fahmi, F., & Damanik, M. H. (2021). Model Pembelajaran Kooperatif Tipe Student Teams Achievement Division Untuk Mengetahuin Perbedaan Kemampuan Pemecahan Masalah dan Motivasi Belajar Siswa. *MES: Journal of Mathematics Education and Science*, *6*(2), 1–8. https://doi.org/10.30743/mes.v6i2.3096

Rejeki, S., & Rahmasari, L. (2022). Students' problem-solving ability in number patterns topic viewed from cognitive styles. *Jurnal Elemen*, *8*(2), 587–604. https://doi.org/10.29408/jel.v8i2.5699

Sadiah, L. H., Suhendra, S., & Herman, T. (2024). Learning Obstacle Pada Pembelajaran Sistem Persamaan Linear Tiga Variabel Berdasarkan Praxeology. *AKSIOMA: Jurnal Program Studi Pendidikan Matematika*, *13*(2), 633. https://doi.org/10.24127/ajpm.v13i2.8352

Sari, E. P., & Karyati. (2020). CORE (Connecting, Organizing, Reflecting & Extending) learning model to improve the ability of mathematical connections. *Journal of Physics: Conference Series*, *1581*(1). https://doi.org/10.1088/1742-6596/1581/1/012028

Son, A. L., & Ditasona, C. (2020). CORE RME learning model on improving students' mathematical problem-solving ability. *Journal of Physics: Conference Series*, *1657*(1). https://doi.org/10.1088/1742-6596/1657/1/012060

Szabo, Z., Körtesi, P., Guncaga, J., Szabo, D., & Neag, R. (2020). Examples of Problem-Solving Strategies in Mathematics Education Supporting the Sustainability of 21st-Century Skills. *Sustainability*, *12*, 10113. https://doi.org/10.3390/su122310113

Ulya, N. D., & Siswanto, J. (2024). Upaya Meningkatkan Hasil Belajar Matematika Melalui PBL Pada Peserta Didik Kelas 1 Sekolah Dasar. *Attadrib: Jurnal Pendidikan Guru Madrasah Ibtidaiyah*, *7*(2), 170–181. https://doi.org/10.54069/attadrib.v7i2.780

Vadivu, P., Logeshwaran, S., Lakshmi, S., & Saravanan. (2025). Advancing Mathematical Problem-Solving through Metacognitive Learning Strategies: Innovations and Applications in Medical and Health Sciences. *International Journal For Multidisciplinary Research*. https://doi.org/10.36948/ijfmr.2025.v07i02.40715