

Application of multi-representational discourse model to improve students' communication skills

Norjanah Norjanah, Jumrodah Jumrodah*, Abdul Gofur

Institut Agama Islam Negeri Palangka Raya, Indonesia

Submitted:
01-04-2025

Accepted:
17-05-2025

Published:
19-05-2025

Abstract: Students who have good communication skills tend to find it easier to understand the material, collaborate with classmates, and complete assignments. Communication skills must be established in students. Learning is not optimal without good communication (good interaction between educators and students). The research on applying the multi-representational discourse (MRD) learning model. This study aimed to explore how this model can improve students' communication skills. The method used in this study was classroom action research. This study was conducted on grade XI students at MAN Kota Palangka Raya with 36 respondents. The data analysis technique used is a quantitative analysis technique to compare student activities during the cycle. The results showed an increase in students' communication skills using MRD learning. The MRD model encourages students to discuss and exchange opinions actively, improving their ability to communicate verbally and non-verbally. The results showed increased students' communication skills, especially in expressing opinions, discussing, making presentations, and asking questions. The use of models that involve active interaction between students, such as group discussions, can have a positive impact on the learning process.

Keywords: Communication, Fiqh learning, Islamic education, multi-representation

Abstrak: Siswa yang memiliki kemampuan komunikasi yang baik cenderung lebih mudah memahami materi, berkolaborasi dengan teman sekelas, dan menyelesaikan tugas. Keterampilan komunikasi harus dibangun pada diri siswa. Pembelajaran tidak optimal tanpa komunikasi yang baik (interaksi yang baik antara pendidik dan siswa). Penelitian tentang penerapan model pembelajaran *multi-representational discourse* (MRD). Penelitian ini bertujuan untuk mengeksplorasi bagaimana model ini dapat meningkatkan keterampilan komunikasi siswa. Metode yang digunakan dalam penelitian ini adalah penelitian tindakan kelas. Penelitian ini dilakukan pada siswa kelas XI MAN Kota Palangka Raya dengan jumlah responden 36 orang. Teknik analisis data yang digunakan adalah teknik analisis kuantitatif untuk membandingkan aktivitas siswa selama siklus. Hasil penelitian menunjukkan adanya peningkatan keterampilan komunikasi siswa dengan menggunakan pembelajaran MRD. Model MRD mendorong siswa untuk berdiskusi dan bertukar pendapat secara aktif, sehingga meningkatkan kemampuan mereka dalam berkomunikasi secara verbal dan non verbal. Hasil penelitian menunjukkan peningkatan keterampilan komunikasi siswa terutama dalam mengemukakan pendapat, berdiskusi, melakukan presentasi, dan mengajukan pertanyaan. Penggunaan model yang melibatkan interaksi aktif antar siswa, seperti diskusi kelompok, dapat memberikan dampak positif pada proses pembelajaran.

Kata kunci: Komunikasi, pembelajaran Fiqih, pendidikan Islam, multi representasi

This is an
open access
article under
the CC-BY-SA
license



*Corresponding author: jumrodah@iain-palangkaraya.ac.id

INTRODUCTION

Education is a system that is always changing along with the changing times with all its demands. In the 21st century, all alternative efforts to meet the needs of life in various contexts are more oriented towards knowledge (Jumrodah, 2024; Mukhadis, 2013). 21st century learning must make students have competitive qualities in the global world (Jumrodah et al., 2021; Nasir et al., 2024). Therefore, quality education is education that can equip students with the skills needed in this century, known as the 4C. One aspect of the 4C

that must be considered in education is the development of communication skills (Sofa et al., 2024; Wijayanti et al., 2025). Good communication skills are very important in building harmonious relationships between students and parents and teachers (Nurdiana, 2023). Learning and innovation skills are recognized as skills that must prepare students for the increasingly complex work and life environments of the 21st century, one of the prioritized skills is communication (Avdiu et al., 2024; Cintamulya et al., 2024; Muhdiati et al., 2025; Sholihah et al., 2025).

Success in accomplishing educational objectives is strongly reliant on the process, and educators who are facilitators and who engage directly with students also play an essential part in the success and effectiveness of learning (Abu-Nimer & Nasser, 2017; Akiba & Liang, 2016; Alhashmi & Moussa-Inaty, 2021; Baransano et al., 2017; Pambudi et al., 2022). In the learning process, communication between teachers and students is essential. Through communication, lesson materials can be delivered and understood well, and can influence students' skills and behaviour. Communication skills are closely related to learning success. Students who have good communication skills tend to find it easier to understand the material, collaborate with classmates, and complete assignments. Conversely, poor communication skills can hinder students' understanding and social development, which ultimately affects their academic achievement (Nurdiana, 2023).

Currently, many students still have difficulty communicating effectively, especially in formal environments such as in the classroom (Chung et al., 2016). This can be seen from the results of several studies showing that students' communication skills in several schools are still relatively low (Angganing et al., 2023; Sasmito et al., 2017). Common problems include lack of active listening skills, difficulty in expressing ideas clearly, and minimal interpersonal communication skills (Sofa et al., 2024). Students' communication skills still need to be developed through relevant learning (Carlgren, 2013). In addition, many students feel embarrassed to give answers or ask questions, which is reflected in their ability to provide questions. Students are more comfortable communicating virtually and informally, so they have difficulty communicating effectively in formal environments such as in the classroom (Chung et al., 2016; Kamaruzzaman, 2016).

Based on the results of observations at an Islamic school in Palangka Raya, not all teachers, especially in the subject of Fiqh, teach effectively. Other findings show that students' communication skills are less than satisfactory. They have difficulty communicating due to fewer interactive teaching methods. Learning focuses on lectures without involving students in interactive activities such as group discussions, case studies, or simulations, which can make learners passive and less skilled in communicating. The learning model applied is less varied and monotonous, which causes students to be less motivated and tend to be passive and reluctant to ask questions and express opinions. The absence of opportunities for students to engage in verbal communication during presentations and discussions hinders the development of these skills (Ahmad, 2021).

Learning Fiqh requires a deep understanding and good communication skills (Yassinta, 2017). Students frequently struggle with communication in this subject. Many learning models applied tend to be monotonous and do not provide sufficient opportunities for students to practice communicating actively, such as through group discussions or presentations (Ainiyah & Mustofa, 2022; Muhtar, 2025). Fiqh learning requires file skills, one of which is effective communication skills (Suhra, 2018). As social beings, humans are

always in contact with other humans. In order to live in society and lead their lives, humans need to interact and communicate with one another. Research by Ni'mah et al. (2019) found that students still have a sense of shame about expressing their opinions, do not dare to ask questions, do not want to discuss with friends in the same group, and so on. The researcher concluded that students' communication skills in Fiqh learning are in the moderate category.

It is necessary to implement a learning model that can actively involve students and motivate them to be more skilled in communicating. One model that has proven effective in improving students' communication skills is the multi-representational discourse (MRD) learning model (Kusuma et al., 2022). This model emphasises understanding concepts through group discussions, where students collaborate to solve problems and gain a deeper understanding. The multi-representational discourse model is a teaching method that encourages informal communication between students through the presentation of problems, assignments, and student training, prioritising active participation in the learning process (Rizal, 2021).

In relation to communication skills, several studies have shown the effects of MRD. For example, Purwasih and Bernad (2018) found that MRD encourages active thinking by allowing students to ask unclear questions, promoting discussion, and enhancing their courage and skills in answering and expressing opinions, thereby enhancing their learning experience. These activities make students' communication skills better. The study by Patriot et al. (2018) indicates that students are strengthening their scientific communication skills, suggesting that a multi-representational approach and interactive conceptual learning are crucial for optimal results. Based on this background, this study aims to examine the application of the multi-representational discourse (MRD) learning model in improving students' communication skills in the Fiqh subject at MAN Kota Palangka Raya.

METHOD

This study uses the classroom action research (CAR) method. Action research is a study in which there is self-reflection carried out by participants in social situations (including education), which aims to improve their own practices (Widyaningsih et al., 2019). The implementation of the study by Kemmis and McTaggart (1988) includes four stages, namely (1) planning, (2) implementation of action (acting), (3) observation (observing), and (4) reflection (reflecting), which consists of 2 cycles.

The subjects of this study were students of class XI E and Fiqh teachers at MAN Palangka Raya City. The number of students was 36, consisting of 16 male students and 20 female students. The object of the study was the application of the multi-representation discourse model in improving students' communication skills in Fiqh subjects with the material of marriage in Islam at MAN Palangka Raya city. The implementation of this research was carried out in July-November 2024.

The tool used in the study was a test to measure students' communication skills (pretest and posttest) consisting of 15 multiple-choice questions designed to assess their communication abilities in Fiqh, based on specific behavioural traits. It included questions that students had to answer by choosing the options that fit them, along with observation sheets for both verbal and nonverbal communication skills. The indicator tool in this study

is based on Chatab's theory from 2007, as shown in Table 1. Table 1 illustrates how the indicator instrument in this study applies the theory of Chatab (2007).

Table 1. Indicators of students' verbal communication skills	
Indicators	
A person's ability to convey ideas or opinions	
Discussion skills	
Presentation skills	
Clear speech that can be understood by the other person	
Question asking skills	

The data analysis technique used is a quantitative data analysis technique to compare student activities during the cycle. This analysis is related to improving student communication skills based on indicators that have been compiled, including (1) verbal communication skills (a person's ability to convey ideas or opinions, skills in discussion, skills in making presentations, clear speech that can be understood by the other person and skills in asking questions) and (2). Non-verbal communication skills include friendly facial expressions when talking to others, body movements such as hand gestures that match the spoken words, and a tone of voice that captures the attention of the listener.

RESULTS AND DISCUSSION

Cycle I learning

The initial activities of this cycle were carried out based on the results of observations that showed several obstacles in students' communication skills. Some students were still less confident in expressing their opinions, were less active in discussions, and had difficulty expressing ideas systematically. Based on these problems, an action was planned that emphasized improving students' communication skills through discussion and active interaction in learning. By implementing the MRD learning model, students can be better trained in expressing opinions, arguing, and communicating verbally and nonverbally more effectively. This model involves students in discussions and the use of various representations, which helps them develop communication as a whole (Mardiah et al., 2024).

Planning

Before the research was carried out, what must be done is to prepare an action plan, namely:

1. Teachers and researchers cooperatively plan learning using the MRD (multi-representation discourse) learning model in the subject of Fiqh in accordance with the implementation of the independent curriculum.
2. Compile worksheets for students related to Fiqh material and compile observation sheets related to students' communication skills.
3. Prepare the facilities and infrastructure needed in learning, so that the learning process can run well.
4. Prepare teaching modules related to the subject of Fiqh in the material

5. Prepare research instruments in the form of observation sheets related to communication skills in the subject of Fiqh.

Action

1. The teacher implements the teaching module that has been designed by the teacher and researcher.
2. The observer conducts an assessment or observation sheet related to the implementation of the MRD model and non-verbal communication.

Observation

Based on the findings in the first cycle of research, it can be stated that the MRD model improves students' communication skills during the learning process and students' ability to understand the material on marriage in Islam (see Table 2 – 4 and Figure 1 – 2).

Reflection

After the learning cycle I was completed, the researcher and teacher reflected on the problems that emerged during the learning process. This reflection aims to design corrective actions in cycle II to improve students' communication skills.

Cycle II learning

Teachers and researchers try to overcome the obstacles that arise in students' communication skills during the learning process. The application of the MRD model in this last cycle strengthens the findings in cycle I, which shows that the discourse paraphrasing technique can help students in compiling and conveying opinions more clearly and increase their confidence in communicating. To achieve better results in cycle II, researchers and educators designed improvements in the learning steps. These changes focused on more effective strategies in encouraging students to actively participate in discussions, convey opinions with good structure, and develop their verbal and nonverbal communication skills optimally. An interaction-based and reflection-based learning approach was applied to ensure that students not only understand the material but are also able to communicate it well in various learning situations.

Planning

In the planning stage, the researcher redesigned the learning module, learning method and learning model for the PAI learning process in class XI and adjusted it.

Action

In the implementation process of cycle II, the researcher is a teacher who teaches students directly, with the same implementation stages as cycle I.

Observation

In the observation stage of cycle II research, there were many changes based on learning achievements. It can be stated that the multi-representation discourse model improves students' communication skills during the learning process and students' ability to understand the material on marriage in Islam (see Table 2 – 4 and Figure 1 – 2).

Table 2. Results of students' verbal communication skills success

Indicators	% of Success criteria		
	Pre-cycle	Cycle I	Cycle II
A person's ability to convey ideas or opinions	55	65	86
Discussion skills	53	60	85
Presentation skills	55	63	84
Clear speech that can be understood by the other person	58	64	87
Question asking skills	61	63	84
Average	57	63	85

The results of verbal communication measurements also increased, from 57% in the pre-cycle to 63% in cycle I. This indicates a change in students' perceptions of their communication skills after receiving intervention in the learning process. Research Zare and Othman (2015) revealed that students believe that their communication skills can be improved when teachers use learning that can train them. Although there was an increase, this result still did not reach the target of 75%, so further efforts are needed in the next cycle to improve students' communication skills more effectively.

Based on the results of measuring communication skills for students in cycle I, there are still several students who have not been able to meet the success criteria for student communication skills. Such as lack of confidence when presenting and delivering with less structured language, teachers are also still lacking in conditioning students in discussions. The cause of students at the beginning of learning is still not optimal because they are not used to the new learning they are following (Werimon et al., 2017). Based on these problems, this research must be continued in the second cycle with some improvements to these problems.

The student success indicators show that some have met the criteria for success in communication skills. So this study has reached cycle II (see Table 2). This shows that students' communication skills have increased. This increase is an indicator of success in implementing the multi-representation discourse model. As explained Kemmis and McTaggart (1988), in the classroom action research model, each cycle will be continued or stopped based on the achievement of the predetermined success indicators. If the indicators have been achieved to a large extent, the study can be stopped at that cycle. After improvements were made in cycle II, there was an increase in students' communication skills. This shows that continuous improvement optimizes students' effective communication skills.

The results of non-verbal observation of student communication (Table 3) showed an increase from 47.35% to 81.23%. Non-verbal observation was not carried out in the pre-cycle. This finding is in line with the results of research by Nurfah et al. (2024), which showed that students began to understand the importance of non-verbal aspects in communication, such as facial expressions, gestures, and eye contact when speaking. Facial expressions and body gestures are important elements in communication because they can strengthen the meaning of messages conveyed verbally (Syawalia et al., 2024). Likewise, Bambaerero and Shokrpour (2017) revealed that non-verbal communication carried out by teachers has a significant influence on student motivation and understanding in the learning

process. Therefore, the increase in scores in cycle I reflects students' initial awareness of the importance of non-verbal communication as an integral part of classroom interactions.

Table 3. Results of observations of non-verbal communication skills

Grid	Aspects observed	Cycle I	Cycle II
Facial expressions	1. Showing a smile when presenting or interacting with friends.	48.33	81.11
	2. Showing facial expressions that match the emotions conveyed	45.56	80.00
	3. Showing interest and attention when friends present	43.33	80.00
Body Movement	4. Using hand gestures that support the message conveyed.	48.89	81.67
	5. Having an open and friendly body posture.	42.22	82.22
	6. Opening good eye contact when speaking	47.78	78.89
Tone of Voice	7. Using a varied tone of voice.	50.56	82.78
	8. Using a clear and easy-to-hear volume.	47.78	79.44
	9. Using attention-grabbing intonation	51.67	85.00
Average		47.35	81.23

Positive student responses, such as increasing enthusiasm and skills, are indicators of the success of the MRD model implementation. The effectiveness of this learning model is proven in improving students' verbal (Table 2) and non-verbal (Table 3) communication skills, and is in accordance with the objectives of the study. This statement is reinforced by Purwasih and Bernad (2018) that the MRD model can improve students' ability to communicate ideas orally and in writing. Although the study was conducted in the context of mathematics learning, the basic principles of communication as a means of conveying ideas and improving understanding remain relevant in the subject of Fiqh. The results of the study showed that from cycle I to cycle II, there was an increase in students' communication skills on the material of marriage in Islam using the multi-representation discourse model, especially in the aspects of verbal and non-verbal interaction. Improvements made in cycle II contributed to achieving more optimal results. Figure 1 shows the percentage of student achievement based on observation.

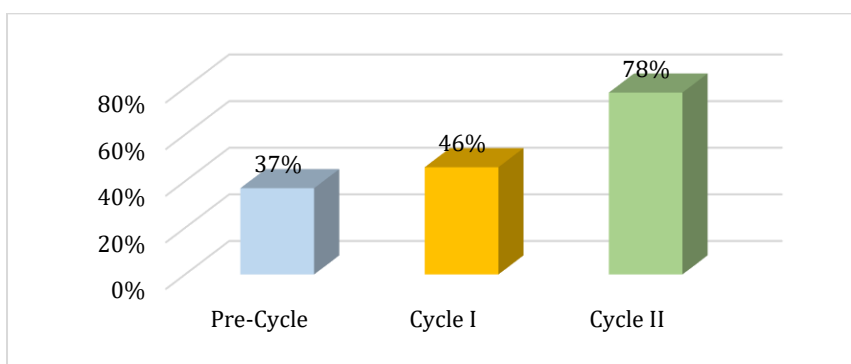


Fig. 1. Results of student communication observations

Based on the diagram in Figure 1, students' communication skills increased from pre-cycle to cycle I. In the non-test observation aspect, the percentage of student success increased from 37% in the pre-cycle to 46% in cycle I. This shows that the intervention carried out began to have an impact on students' ability to express opinions verbally. Figure 2 shows the student achievement based on communication skills criteria.

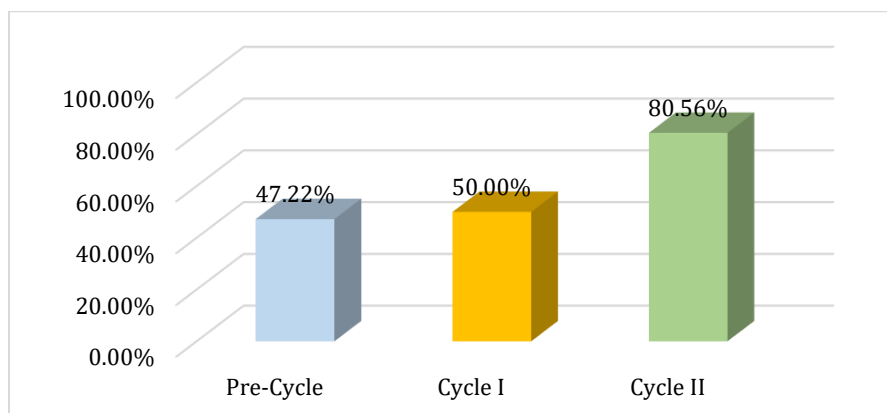


Fig. 2. Percentage of student communication achievements

Based on the results of the implementation of cycle II, it can be seen that there is an increase in students' communication skills in Fiqh learning using the Multi-Representation Discourse (MRD) model when compared to cycle I (Figure 2). In cycle I, the number of students who achieved the expected communication skills criteria was 18 (50%) students, while in cycle II it increased to 28 (80.56%) students. However, there are still some weaknesses in the learning process, namely students still have difficulty in communicating their opinions verbally and nonverbally well. Some students are still passive in class discussions, so efforts are needed to further encourage their courage in communicating effectively. Therefore, the second cycle was carried out to improve the weaknesses that occurred in the first cycle. In Fiqh learning using the MRD model, researchers and teachers prepare various strategies to overcome students' communication barriers, such as providing speaking exercises, group discussions, and providing constructive feedback. The second cycle is part of the final improvement efforts in this study to optimize students' communication skills. In line with the results of research conducted by Nugraheni (2018) which showed that after improvements were made in cycle II, students' communication skills increased significantly, from 61.72% to 74.90% orally and from 69.33% to 87.11% in writing, so that the second cycle was declared effective in achieving learning objectives.

The results of the study indicate that the use of the MRD model in Fiqh learning can improve students' communication skills, both verbally and nonverbally. Students become more confident in expressing their opinions, more active in discussions, and are able to use facial expressions, eye contact, and gestures better in communication. This is in line with the findings of Wahyuni (2019), that the MRD model is effective in increasing student involvement in learning activities, so it is recommended for educators to apply it as an alternative in learning that can improve students' communication skills. In addition, students' enthusiasm for Fiqh learning increased, as seen from their involvement in every stage of learning with the MRD model. This shows that the application of the right learning

strategy can have a positive impact on developing students' communication skills as a whole. This opinion is in line with the findings of Safitri et al. (2023), which state that the application of effective learning strategies in Islamic religious education can significantly improve students' communication skills.

CONCLUSION

The conclusion of this article is that the implementation of the multi-representation discourse (MRD) learning has proven effective in improving students' communication skills in Fiqh subjects at MAN Kota Palangka Raya. The MRD model encourages students to actively discuss and share opinions, which in turn improves their ability to communicate both verbally and non-verbally. The results of the study showed an increase in students' communication skills, especially in terms of expressing opinions, discussing, making presentations, and asking questions. Although there was a significant increase from the first cycle to the second cycle, challenges in encouraging students to be more active still exist, so continuous improvement in learning strategies is needed. Overall, the implementation of the MRD model succeeded in developing students' communication skills, improving their activeness in discussions, and improving conceptual understanding through the use of various forms of representation. This shows that the use of models that involve active interaction between students, such as group discussions, can have a positive impact on the learning process.

REFERENCES

- Abu-Nimer, M., & Nasser, I. (2017). Building peace education in the Islamic educational context. *International Review of Education*, 63(2), 153–167. <https://doi.org/10.1007/s11159-017-9632-7>
- Ahmad, C. V. (2021). Causes of Students' Reluctance to Participate in Classroom Discussions. *ASEAN Journal of Science and Engineering Education*, 1(1), 47–62. <https://doi.org/10.17509/ajsee.v1i1.32407>
- Ainiyah, Q., & Mustofa, A. (2022). The Implementation of Jigsaw to Improve Madrasah Tsanawiyah Students' Fiqih Achievement. *AL-ISHLAH: Jurnal Pendidikan*, 14(4), 4745–4752. <https://doi.org/10.35445/alishlah.v14i4.2331>
- Akiba, M., & Liang, G. (2016). Effects of teacher professional learning activities on student achievement growth. *The Journal of Educational Research*, 109(1), 99–110. <https://doi.org/10.1080/00220671.2014.924470>
- Alhashmi, M., & Moussa-Inaty, J. (2021). Professional learning for Islamic education teachers in the UAE. *British Journal of Religious Education*, 43(3), 278–287. <https://doi.org/10.1080/01416200.2020.1853046>
- Angganing, P., Budiningsih, C. A., & Haryanto, H. (2023). The profile of students' communication skills on science Learning in elementary schools. *Pegem Journal of Education and Instruction*, 13(1), 117–124. <https://doi.org/10.47750/pegegog.13.01.14>
- Avdiu, E., Bekteshi, E., & Gollopeni, B. (2024). Learning skills for the future – implementing the 21st-century learning. *Multidisciplinary Science Journal*, 7(1), 2025011. <https://doi.org/10.31893/multiscience.2025011>
- Bambaeeroo, F., & Shokrpour, N. (2017). The impact of the teachers' non-verbal

- communication on success in teaching. *Journal of Advances in Medical Education & Professionalism*, 5(2), 51–59.
- Baransano, A. Y., Yohanita, A. M., & Damopolii, I. (2017). Penerapan model pembelajaran picture and picture untuk meningkatkan hasil belajar biologi siswa kelas XI IPA SMA YABT Manokwari. *Prosiding Seminar Nasional MIPA II*, 273–280.
- Carlgren, T. (2013). Communication, Critical Thinking, Problem Solving: A Suggested Course for All High School Students in the 21st Century. *Interchange*, 44(1–2), 63–81. <https://doi.org/10.1007/s10780-013-9197-8>
- Chatab, N. (2007). *Profil budaya organisasi*. Alfabeta.
- Chung, Y., Yoo, J., Kim, S.-W., Lee, H., & Zeidler, D. L. (2016). Enhancing Students' Communication Skills In The Science Classroom Through Socioscientific Issues. *International Journal of Science and Mathematics Education*, 14(1), 1–27. <https://doi.org/10.1007/s10763-014-9557-6>
- Cintamulya, I., Murtini, I., & Warli, W. (2024). Optimization of Critical Thinking by Empowering Collaboration and Communication Skills through Information Literacy-Based E-Books: In STEM integrated Problem-Based Learning. *European Journal of Educational Research*, 14(1), 151–166. <https://doi.org/10.12973/eu-er.14.1.151>
- Jumrodah, J. (2024). Improving Creative Thinking Skills In Marine Ecology In Developing Bioentrepreneurship. *Jurnal Penelitian Pendidikan IPA*, 10(6), 3274–3279. <https://doi.org/10.29303/jppipa.v10i6.8017>
- Jumrodah, J., Liliarsari, S., Adisendjaja, Y. H., & Sanjaya, Y. (2021). Peningkatan Keterampilan Berpikir Kritis pada Konsep Biota Laut menuju Pembangunan Berkelanjutan melalui Pembelajaran Berbasis Proyek. *Biosfer: Jurnal Biologi Dan Pendidikan Biologi*, 6(2), 68–78. <https://doi.org/10.23969/biosfer.v6i2.4337>
- Kamaruzzaman, A. (2016). *Strategi Pembelajaran Efektif untuk Meningkatkan Keterampilan Komunikasi Siswa*. Alfabeta.
- Kemmis, S., & McTaggart, R. (1988). *The action research planner Victoria*..Deakin University.
- Kusuma, J. W., Zaenuri, Z., Rochmad, R., Pujiastuti, E., & Hamidah, H. (2022). The Influence Of The Ethnomathematicss-Based Multy Representation Discourse Learning Model On Mathematical Communication Skills And Self-Confidence Of Junior High School Students. *Proceedings of International Conference on Science, Education, and Technology*, 8, 740–746.
- Mardiah, S. A., Fahrurrozi, F., & Hayati, N. (2024). Pengaruh model pembelajaran kooperatif tipe diskursus multy representasy (DMR) dan minat belajar terhadap kemampuan komunikasi matematis siswa. *NOTASI: Jurnal Pendidikan Matematika*, 2(2), 81–90. <https://doi.org/10.70115/notasi.v2i2.194>
- Muhdiati, S., Wahyudin, D., & Umrotullatifah, N. (2025). The influence of self-efficacy on sixth graders' mathematical communication skills. *Inovasi Kurikulum*, 22(1), 347–366. <https://doi.org/10.17509/jik.v22i1.78691>
- Muhtar, M. (2025). Group Discussion Method to Improve Learning Outcomes of Grade VII Students in Fiqh Learning: Action Research at MTs Al-Insan. *Journal of Action Research in Islamic Education*, 1(1), 296–309. <https://ejournal.mgedukasia.or.id/index.php/joariie/article/view/192>
- Mukhadis, A. (2013). Sosok Manusia Indonesia Unggul dan Berkarakter dalam Bidang

- Teknologi Sebagai Tuntutan Hidup di Era Globalisasi. *Jurnal Pendidikan Karakter*, 4(2), 115–136. <https://doi.org/10.21831/jpk.v2i2.1434>
- Nasir, N. I. R. F., Purwaningsih, E., Ekawati, R., & Yambi, T. D. A. C. (2024). An analysis of primary school students' scientific literacy. *Journal of Research in Instructional*, 4(2), 623–634. <https://doi.org/10.30862/jri.v4i2.544>
- Ni'mah, Z., Sulistiani, I. R., & Anggraheni, I. (2019). Upaya Guru Dalam Mengatasi Kesulitan Belajar Siswa Mata Pelajaran Fiqih Di SMP Islam Karangploso Malang. *Vicratina : Jurnal Ilmiah Keagamaan*, 4(7), 82–85. <https://jim.unisma.ac.id/index.php/fai/article/view/3299>
- Nugraheni, S. (2018). *Pengaruh model pembelajaran diskursus multi representasi terhadap kemampuan komunikasi matematis* [Undergraduate Thesis, Universitas Muhammadiyah Surakarta]. UMS Campus Repository. <https://eprints.ums.ac.id/61062/22/NASKAH%20PUBLIKASI-Sinta.pdf>
- Nurdiana, B. (2023). *Efektivitas Model Pembelajaran Visualization Auditory Kinesthetic (VAK) Melalui Media Handout Pada Materi Akidah Akhlak Terhadap Keterampilan Komunikasi Dan Sikap Santun Siswa* [Master Thesis, Universitas Islam Negeri Sunan Gunung Djati]. UIN Sunan Gunung Jati Campus Repository. <https://digilib.uinsgd.ac.id/78995/>
- Nurfah, N., Mustafa, M., & Meidina, T. (2024). Improving Verbal Communication Skills Through Music Therapy for Autistic Children in Kindergarten. *Pinisi Journal of Art, Humanity, and Social Studies*, 4(2), 45–60. <https://journal.unm.ac.id/index.php/PJAHSS/article/view/1751>
- Pambudi, G. D., Winangsih, F., Nunaki, J. H., Nusantara, E., & Damopolii, I. (2022). Encouraging students' metacognitive skills through inquiry learning. *Inornatus: Biology Education Journal*, 2(1), 43–52. <https://doi.org/10.30862/inornatus.v2i1.272>
- Patriot, E. A., Suhandi, A., & Chandra, D. T. (2018). Optimize scientific communication skills on work and energy concept with implementation of interactive conceptual instruction and multi representation approach. *Journal of Physics: Conference Series*, 1013, 012029. <https://doi.org/10.1088/1742-6596/1013/1/012029>
- Purwasih, R., & Bernad, M. (2018). Pembelajaran diskursus multi representasi terhadap peningkatan kemampuan komunikasi dan disposisi matematis mahasiswa. *Jurnal Riset Pendidikan Matematika*, 5(1), 43–52. <https://doi.org/10.21831/jrpm.v5i1.13589>
- Rizal, A. (2021). Multi-Representation Discourse Learning Model As An Alternative Solution To Improve Student Learning Outcomes In Science Lessons. *Jurnal Sekolah Dasar*, 6(1), 28–35. <https://doi.org/10.36805/jurnalsekolahdasar.v6i1.1300>
- Safitri, M., Arifin, S., & Wathoni, L. M. N. (2023). Strategi Meningkatkan Keterampilan Komunikasi Siswa dalam Pembelajaran Pendidikan Agama Islam di SMK Negeri 1 Praya. *MANAZHIM*, 5(2), 607–627. <https://doi.org/10.36088/manazhim.v5i2.3300>
- Sasmito, A., Suciati, S., & Mariadi, M. (2017). Profile of communication skills in biology for XI grade students of “Y” senior high school in Madiun Regency. *Unnes Science Education Journal*, 6(2), Article 2. <https://doi.org/10.15294/usej.v6i2.15818>
- Sholihah, M., Zubaidah, S., Mahanal, S., & Listyorini, D. (2025). The effect of reading-concept mapping-reciprocal teaching on students' communication skills. *Journal of Education and Learning (EduLearn)*, 19(1), 158–168.

- <https://doi.org/10.11591/edulearn.v19i1.21765>
- Sofa, I. A., Setiyowati, A. J., & Eva, N. (2024). Grapyak value sociodrama technique group guidance guidebook for teaching students interpersonal communication skills. *Journal of Research in Instructional*, 4(1), 39–48. <https://doi.org/10.30862/jri.v4i1.296>
- Suhra, S. (2018). Urgency of Life Skill Learning in Fiqih Lessons in Madrasah. *Proceeding The Annual International Conference on Islamic Education*, 3(1), 224–231. <https://www.jurnal.stitnualhikmah.ac.id/index.php/proceedings/article/view/272>
- Syawalia, D. M., Maylani, A., Ferdyan, M. H., Halim, M. I., & Tri Nugraha, J. (2024). Persepsi masyarakat pada makna ekspresi wajah dan gestur tubuh dalam berkomunikasi. *Journal of Governance and Public Administration*, 2(1), 74–83. <https://doi.org/10.70248/jogapa.v2i1.1635>
- Werimon, S., Damopolii, I., & Nunaki, J. H. (2017). Pengaruh model pembelajaran stad dipadu media pembelajaran komik materi sistem pencernaan manusia terhadap hasil belajar siswa. *Jurnal Eksakta Pendidikan*, 1(2), 33–40. <https://doi.org/10.24036/jep.v1i2.52>
- Widyaningsih, S. W., Yusuf, I., & Damopolii, I. (2019). Pelatihan penelitian tindakan kelas bagi guru IPA Kabupaten Manokwari Papua Barat. *JMM (Jurnal Masyarakat Mandiri)*, 115. <https://doi.org/10.31764/jmm.v0i0.1155>
- Wijayanti, S. H., Widyastuti, T. D., Ristyantoro, R., & Pramono, H. (2025). An investigation of the quality of presentation slide design and oral communication in higher education. *Journal of Research in Instructional*, 5(1), 185–198. <https://doi.org/10.30862/jri.v5i1.608>
- Yassinta, Y. (2017). Pembelajaran Fiqih Berbasis Kecakapan Abad 21 Pada Siswa kelas V. *Tarbiya Islamica*, 5(1), 11–16. <https://doi.org/10.37567/ti.v5i1.1487>
- Zare, P., & Othman, M. (2015). Students' Perceptions toward Using Classroom Debate to Develop Critical Thinking and Oral Communication Ability. *Asian Social Science*, 11(9), 158–170. <https://doi.org/10.5539/ass.v11n9p158>