

Strengthening Student Organizational Management Through Assistance in The Preparation of Work Programs and Work Calendars Based on Artificial Intelligence

Febi Febrianto*, Zackyl Musthofa, Aminullah, Moh. Rofik, Badrul Mudarris, Tohet, Najiburrohman

Universitas Nurul Jadid, Indonesia

*Febifebrianto105@gmail.com

Received: November2025;December2025;January2026

Abstract:

This Community Service Program aims to enhance student organization management skills through mentoring on the development of work programs and work calendars based on Artificial Intelligence. The main problem faced by the partner institution is the low level of organizational planning skills, indicated by the absence of systematic work programs and work calendars, as well as limited use of technology in the planning process. The program employed a Participatory Action Research (PAR) approach with descriptive quantitative analysis based on pre-test and post-test comparisons. The results indicate a significant improvement in the average achievement score, increasing from 39% in the pre-test to 82% in the post-test. Improvements were observed across all indicators, particularly in the ability to develop structured work programs, work calendars, and utilize Artificial Intelligence as a planning support tool. These findings demonstrate that Artificial Intelligence-based mentoring is effective in strengthening student organization management and has the potential to be implemented more broadly in other educational contexts.

Key Words: *Community Service Program, Student Organization, Work Calendar, Artificial Intelligence*

INTRODUCTION

Student organizations are strategic spaces for leadership and management learning for students, but in practice they are often not supported by careful activity planning. Many student organizations run without a systematically arranged work program and work calendar, so organizational activities tend to be incidental and reactive (Siahaan et al., 2021). Social facts in the educational environment show that student organizational activities often overlap, are not well scheduled, and depend on the habits of the previous year without adequate evaluation (Dewi, 2025; Kusumawati, 2025; Najiburohman et al., 2025; Syafiih, 2025). This condition causes student organizations to lose their strategic function as a vehicle for managerial learning and student character development (Rohimah et al., 2024).

These problems reflect the weak management capacity of student organizations, especially in the aspect of activity planning. Student organization administrators are generally students who are still in the learning stage and need targeted assistance (Rohimah et al., 2024). However, the mentoring that has been carried out so far is more administrative and has not touched on strengthening managerial skills substantively (Citra & Aidah, 2024). Various studies in the field of educational organization management confirm that the failure of non-formal organizations in achieving goals is often caused by weak program planning and time management of activities. Without good planning, student organizations can potentially become just a formal structure with no real impact on the capacity development of their members (Kautsar & Julaiha, 2023).

In the midst of these limitations, the development of digital technology, especially Artificial Intelligence, presents new opportunities in supporting the organizational planning process. Artificial Intelligence allows for rapid information processing, the preparation of alternative work programs, and the organization of activity calendars in a more systematic and adaptive manner. A number of recent literature shows that the use of Artificial Intelligence in the context of education can improve the effectiveness of planning and the quality of decision-making. However, the use of Artificial Intelligence as a tool in assisting student organizations is still very limited and has not become a common practice (Inayati et al., 2024).

The gap between the demands of professional student organization management and the lack of use of Artificial Intelligence in the mentoring process is the main problem that needs to be bridged. So far, the concept of modern management and the use of advanced technology are more widely applied at the level of educational institutions, while student organizations are still managed conventionally (Yaqin, 2022). The gap between technology-based organizational management theory and student organizational mentoring practices emphasizes the urgency of an innovative, applicative, and contextual mentoring model (Koto, 2015).

Based on these conditions, this Community Service activity was carried out as an effort to strengthen the management of student organizations through assistance in the preparation of work programs and work calendars based on Artificial Intelligence. Artificial Intelligence is positioned as a tool in the planning process, while decision-making remains with the management of the student organization. Through this assistance, it is hoped that the managerial skills and digital literacy of student organization administrators can be improved, so that they are able to prepare work programs and work calendars that are directed, realistic, and sustainable, and have a positive impact on the effectiveness of the implementation of student organizational activities (Winantika et al., 2022).

RESEARCH METHOD

This Community Service activity uses the Participatory Action Research (PAR) approach, which is a participatory approach that places partners as active subjects in all stages of activities, in this case the object of the research is the Intra-School Student Organization (OSIS) of MA Darul Ulum. This approach was chosen because the problems faced by student organizations are directly related to the practice of managing daily activities, so it requires the active involvement of the organization's management in the process of problem identification, planning,

action, and reflection. Through PAR, mentoring not only functions as a knowledge transfer, but also as a continuous collective learning process (Javani et al., 2024).

The strategy for implementing activities is carried out through several main stages, namely initial problem mapping, action planning, implementation of mentoring, and evaluation-reflection. At the problem mapping stage, the initial condition of student organization management was identified, especially related to the preparation of work programs and work calendars. The action planning stage is focused on designing an Artificial Intelligence-based mentoring scheme tailored to the needs of partners. The implementation stage includes direct assistance in the preparation of work programs and work calendars by utilizing Artificial Intelligence as a planning tool. Furthermore, the evaluation and reflection stages were carried out to assess changes in managerial capacity and the effectiveness of student organizational planning after mentoring activities (Dewi et al., 2024).

In support of this participatory approach, data collection methods are carried out through interviews, focus group discussions, and participatory observations. Interviews and group discussions are used to explore the understanding, experiences, and constraints of student organization administrators in the activity planning process. Participatory observation is carried out during the mentoring process to see firsthand the involvement of partners, organizational dynamics, and the implementation of the use of Artificial Intelligence in the preparation of work programs and work calendars (Arfanaldy, 2024).

Data collection in this activity is carried out by combining qualitative and quantitative data. Qualitative data was obtained through the results of interviews, group discussions, and participatory observation notes that described the mentoring process, partner responses, and changes in the mindset of student organization administrators. Meanwhile, quantitative data was obtained through number-based assessment instruments, such as pre-test and post-test questionnaires, which were used to measure the level of understanding and ability of student organizational administrators in compiling work programs and work calendars before and after mentoring (Budiyatmo et al., 2022).

Quantitative data analysis was carried out using descriptive statistical analysis to see changes in average scores, percentage increases, and comparisons of conditions before and after mentoring activities. This data is used to objectively show the impact of Artificial Intelligence-based mentoring on increasing the managerial capacity of student organization administrators (Oka, 2016). Meanwhile, qualitative data is analyzed through thematic analysis techniques to identify patterns, tendencies, and meanings of partners' experiences during the mentoring process. The results of qualitative and quantitative analysis are then integrated to provide a comprehensive picture of the effectiveness of the PAR method in strengthening Artificial Intelligence-based student organizational management.

RESULT AND DISCUSSION

Result

Community service activities carried out at the Intra-School Student Organization (OSIS) of MA Darul Ulum began with problem mapping that identified the difficulties of administrators in systematically compiling work programs and work calendars, as well as the lack of use of technology in planning activities

(Hariono et al., 2021). Based on these findings, the service team designed and implemented training that focused on the introduction and implementation of Artificial Intelligence (AI)-based applications to assist student council administrators in managing their activities more efficiently and structured. During the training, which was attended by 10 student council administrators, the service team acted as the main facilitator, providing direct guidance in using the application. With this assistance, it is hoped that the student council management can be more effective in planning and organizing activities, as well as utilizing technology to improve the quality of their organization's management.



Figure 1. Documentation of the Implementation of Assistance in the Preparation of Work Programs and Work Calendars of Student Organizations

To measure the increase in participants' knowledge and skills, pre-tests and post-tests were carried out. The population involved in this study is 10 MA Darul Ulum student council administrators. The instruments used include aspects such as understanding information system concepts, the ability to compile work programs and work calendars, and the use of AI in planning (Azzaah & Syukri, 2020) Results will be analyzed by comparing the average pre-test and post-test scores to see significant changes in participants' knowledge and skills. Thus, the findings of this activity are expected to show the effectiveness of AI-based training in improving student organizational management.

After the mentoring was carried out, the post-test results showed an improvement in all aspects measured. Student organization administrators are beginning to be able to understand the concept of work programs, systematically compile work programs, design structured and realistic work calendars, and utilize *Artificial Intelligence* to help the planning process. This increase shows that mentoring activities have a real impact on strengthening the knowledge and managerial skills of student organization administrators.

To clarify these findings, the results of the pre-test and post-test are presented in the form of a table as follows.

Table 1. Results of Pre-Test and Post-Test of Student Organization Management Ability

Measured Aspects	Indicator	Pre-test (%)	Post-test (%)	Enhancement (%)
Understanding the Concept of Work Program and Work Calendar	Explain the meaning and purpose of work programs and work calendars in student organizations	65	95	30
	Mention the benefits of systematics in the preparation of work programs and work calendars	60	90	30
Work Program Structure and Work Calendar	Identify key components in the work program and work calendar	58	92	34
	Develop a general scheme of work programs and work calendars that suit the needs of the student organization	55	85	30
The Use of Artificial Intelligence in Planning	Explain the role of AI in the preparation of work programs and work calendars	40	85	45
	Identify AI-based application features used in the planning of student organizational activities	35	80	45
Procedure for Preparing Work Programs and Work Calendars	Determining the correct steps in using AI-based applications to develop planning	42	90	48
Utilization of Data in the Preparation of Work Programs	Collect and utilize relevant data in the preparation of work programs and work calendars	50	85	35
Determination of Priority of Activities in the Work Program	Compile a scale of activity priorities in AI-based work programs and work calendars	45	88	43
Preparation of Time Plans and Activity Budgets	Calculate the estimated time and budget needed for each activity in the work program	48	80	32
Evaluation and Improvement of Work Programs and Work Calendars	Assess the effectiveness of the work program and work calendar that is prepared and provide recommendations for AI-based improvements	37	85	48
Analysis of Linkages Between Activities	Establish relationships between activities in work programs that are mutually supportive and sustainable	49	84	3
Security and Maintenance of Planning Data	Explain the importance of data security in AI applications for work programs and work calendars	40	85	45
Overall Average		48	85	37

Based on the data obtained from the pre-test and post-test, it can be seen that there is a significant improvement in all aspects measured. The average pre-test score from 48% increased to 85% in the post-test, with an increase in the average achievement of 37%. The highest increase occurred in the ability to Use *Artificial Intelligence* in the Planning and Evaluation and Improvement of Work Programs and Work Calendars, which recorded an increase of 45% and 48%, respectively. This shows that AI-based mentoring is very effective in increasing participants' understanding of technology in organizational planning. With an even improvement in all indicators, this training succeeded in improving the managerial skills of student council administrators, especially in terms of compiling and planning activities in a more systematic and technology-based manner (Mundiri & Julia, 2025)

Furthermore, the concrete results of the mentoring activities are shown through work program documents and work calendars that have been prepared by the management of the student organization. This document represents a shift from previously unstructured planning to more systematic, measurable, and realistic planning. The visual presentation at this stage is intended to display the real output resulting from the mentoring process (Abdullah, 2024)

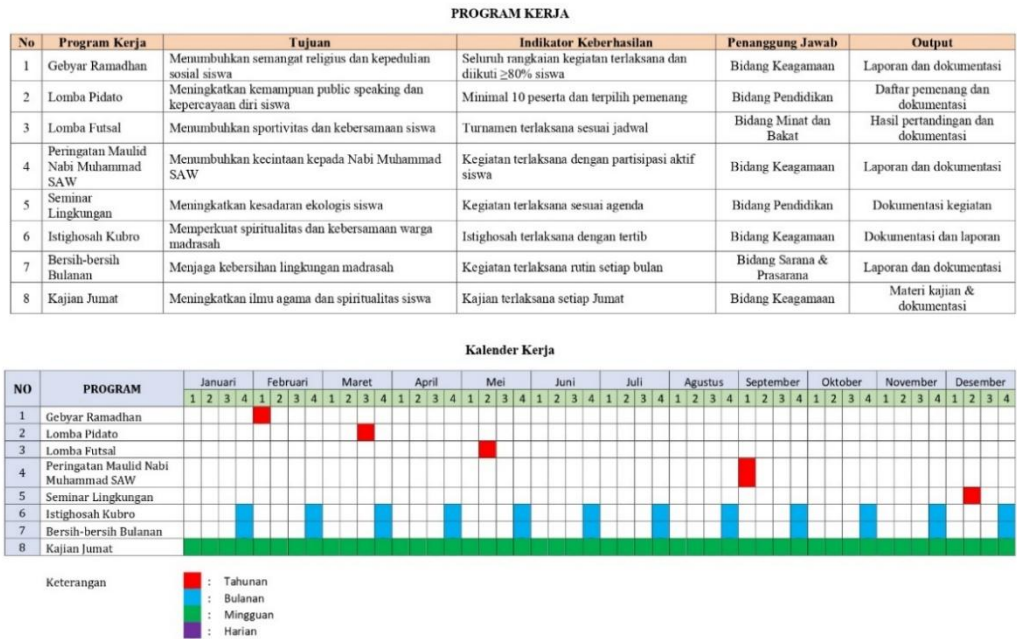


Figure 2. Work Programs and Work Calendars of Student Organizations Assistance Results

The increase in the percentage of pre-test and post-test results in all indicators shows that the mentoring carried out has succeeded in significantly and measurably improving the management ability of student organizations, especially in the preparation of work programs, work calendars, and the use of *Artificial Intelligence* as a planning tool. A relatively even increase in achievement in each indicator indicates that the intervention does not only have an impact on certain aspects, but strengthens the overall organizational planning competence. These quantitative findings are strengthened by visual documentation that displays the

mentoring process and concrete results in the form of work programs and work calendars that are more structured, thus showing a clear relationship between the implementation process, the output produced, and the improvement of the ability of student organization administrators as a whole (Waruwu et al., 2025)

Discussion

The results of the mentoring activities carried out at the MA Darul Ulum Student Council show a very significant change in the managerial ability of organizational administrators, especially in compiling work programs and work calendars based on Artificial Intelligence (AI). The increase in the average pre-test score from only 48% to 85% on the post-test really reflects how much of an impact this training has produced. This 37% increase does not only cover one or two aspects, but occurs in all indicators measured, showing that this mentoring provides a comprehensive and fundamental change in the way the student council management plans activities (Multazami & Diana, 2025) (Sudirman, 2022).

These results are certainly evocative, as they show that AI, which was previously considered complex and unfamiliar by most participants, can be accepted and used well by administrators. Before training, many administrators had difficulty in compiling a structured and systematic work program and calendar. In fact, most of them have not made optimal use of technology (Zubaid & Saidah, 2025). However, after attending AI-based training sessions, they were able to develop a more structured, realistic, and data-driven work program. This process is not only about learning to use technology, but also about how technology can be a very helpful tool in strengthening planning and decision-making (Baharun et al., 2025).

The most striking increase is seen in the ability to use AI in planning, which was previously at 40% in the pre-test and jumped to 85% in the post-test. This shows that although initially the student council administrators felt less confident in using AI, the mentoring provided succeeded in overcoming these obstacles, even giving them a deep understanding of how AI can optimize organizational planning (Kautsar & Julaiha, 2023).

Overall, these findings show that AI-based mentoring not only improves technical knowledge, but also changes mindsets and approaches in managing activities. Work programs and work calendars that were previously reactive are now more proactive and data-driven, which will have a long-term impact on the performance of student organizations in the future (Baharun et al., 2025). This is strong evidence that with the right approach, advanced technologies such as AI can be well received by students and are able to change the way they plan activities (Fawaid & Maulidin, 2025) (Zahra et al., 2021).

It is important to note that this success does not only rely on improving technical skills, but also reflects a change in the mindset of the student council management towards technology. Previously, AI may have seemed like a complicated tool and could only be used by those with a technical background, but in practice, with the right mentoring, this technology can be used by anyone. The AI-based approach provides them with practical skills that can be immediately applied in managing organizations, and at the same time improve their digital literacy, which is a much-needed competency in today's digital age.

The long-term impact of this increase is also evident in the changes that have occurred in the way student organizations manage their activities. Going forward,

by using AI, they can plan activities more efficiently, identify priorities more clearly, and even analyze the results of activities more accurately. This provides a solid basis for managers to not only carry out activities, but also assess and adjust strategies on an ongoing basis (Yaqin et al., 2022). This success in utilizing AI also opens up opportunities for other schools to adopt similar technologies in the management of their student organizations (Sulistyaningrum et al., 2025.).

These findings show that the use of AI in student organizations not only optimizes organizational performance, but can also generate added value in management capacity building, which can later be applied in a broader context, both in the world of education and the world of work. If the adoption of this technology is done correctly and supported by ongoing mentoring, AI can be a catalyst for digital transformation in education, supporting students to become better prepared to face the challenges of the modern world that is increasingly integrated with technology (Mundiri et al., 2025).

CONCLUSION

Community service activities carried out at the MA Darul Ulum Student Council have succeeded in having a significant impact in improving the managerial ability of organizational management, especially in the preparation of work programs and work calendars based on Artificial Intelligence (AI). The increase in the average pre-test score from 48% to 85% in the post-test shows the effectiveness of the assistance provided. All indicators measured, from understanding basic concepts to procedural skills in using AI, have improved evenly, indicating that this training has succeeded in changing the way student council administrators plan and manage their activities in a more systematic and technology-based manner.

Overall, these findings prove that the application of advanced technologies such as AI is well received by students and has a positive impact on the management of student organizations. With the use of AI, student council administrators are not only able to prepare work programs and work calendars that are more structured and realistic, but can also optimize decision-making and increase efficiency in planning activities. This AI-based approach has the potential to be applied in student organizations in other schools, so it can be an effective model for improving the managerial quality of organizations at the educational level.

REFERENCES

- Abdullah, R. (2024). *Meningkatkan Kinerja Pelayanan Publik: Sistem Tata Kelola Pendaftaran Tanah*. *Kybernology*, 2, 584–594. <https://doi.org/10.71128/kybernology.v2i2.171>
- Arfanaldy, S. R. (2024). *Analisis Kebutuhan Pengelolaan Tenaga Administrasi Madrasah*. *Edu Cendikia: Jurnal Ilmiah Kependidikan*, 4(1), 1–9. <https://doi.org/10.47709/educendikia.v4i01.3561>
- Azzaah, S. I., & Syukri, M. (2020). *Strategi Manajemen Humas Dalam Membangun Citra Madrasah Di MTs Azzuhri Tanjung Morawa Kabupaten Deli Serdang*. *Hijri*, 9(2), 1. <https://doi.org/10.30821/hijri.v9i2.8348>

- Baharun, H., Fahmadia, P., & Maulida, D. (2025). *The Role of Kiai Leadership and Service Quality in Shaping the Reputation of Pesantren*. *Munaddhomah*, 6(4), 695–709. <https://doi.org/10.31538/munaddhomah.v6i4.1785>
- Budiyatmo, B., & Iriani, A. (2022). *Membangun Citra Sekolah Berdasarkan Marketing Mix untuk Meningkatkan Jumlah Peserta Didik*. *Jurnal Komunikasi*, 9(2), 238–252. <https://doi.org/10.24246/j.jk.2022.v9.i2.p238-252>
- Citra, Y., & Aidah, A. (2024). *Ekstrakurikuler Bina Mental Islam (Bintalis) Dalam Membentuk Karakter Islami Siswa Di SMA Negeri 12 Medan*. *Jurnal Manajemen Pendidikan Islam*, 7(2), 737–756. <https://doi.org/10.30868/im.v7i02.7158>
- Dewi, A. T. A. (2025). *Program Guru Penggerak dan Peningkatan Kompetensi Pedagogik Guru: Studi Kasus Di Balai Besar Guru Penggerak Jawa Timur* (Tesis magister). Universitas Islam Negeri Maulana Malik Ibrahim.
- Dewi, S., Linchia, D., Heningdyah, L., Kusumawardhani, N., Jaelani, A., Noya, S. W., & Mendrofa, H. P. (2024). *Efektivitas Pemidanaan Penjara Dalam Mencegah Tindak Pidana Berulang Di Indonesia*. *Jurnal Kolaboratif Sains*, 7(12), 4568–4573. <https://doi.org/10.56338/jks.v7i12.6567>
- Eka Yeni Winantika, Febriyanto, B., & Utari, S. N. (2022). *Peran Media Sosial Dalam Pembentukan Karakter Siswa Di Era Digital*. *Jurnal Lensa Pendas*, 7(1), 1–14. <https://doi.org/10.33222/jlp.v7i1.1689>
- Fawaid, A., & Maulidin, A. (2025). *From Pesantren to the Public Stage: Divergence of Approaches to Quranic Interpretation Between Kiai and Celebrity Preachers*. *Tafsir Wa'l-Lughah*, 4(1), 1–18. <https://doi.org/10.32939/twl.v4i1.5122>
- Hariono, T., Ashoumi, H., Tabiin, H. Q., & Faizin, M. K. (2021). *PKM Pembuatan E-Commerce Desa Banjarsari*. *Abdimas IF*, 2(2), 2–6. <https://doi.org/10.32764/abdimasif.v2i2.1716>
- Inayati, N., Masithoh, A. D., & Mudlofir, A. (2024). *Pengintegrasian Kurikulum Madrasah Diniyah Pada Sekolah Formal*. *POTENSIA: Jurnal Kependidikan Islam*, 10(1), 77. <https://doi.org/10.24014/potensia.v10i1.29911>
- Kautsar, M., & Julaiha, S. (2023). *Langkah-Langkah Manajemen Strategik Di Lembaga Pendidikan Islam*. *JIDER*, 3(1), 24–28. <https://doi.org/10.53621/jider.v3i1.203>
- Koto, J. (2015). *Pengaruh Angka Melek Huruf dan Angka Harapan Hidup Terhadap Jumlah Penduduk Miskin Di Provinsi Sumatera Barat*. *Economica*, 2(2), 126–133. <https://doi.org/10.22202/economica.2014.v2.i2.225>
- Kusumawati, I. (2025). *AI-Based Human Capital as a Catalyst for Increasing the Strategic Agility of Educational Organizations*. *International Journal of Multidisciplinary Research*, 1(5), 239–245.
- Muhammad Ainul Yaqin. (2022). *Peran Kepemimpinan Kyai Dalam Membentuk Karakter Santri Di Pondok Pesantren Al-Mashduqiah Patokan Kraksaan Probolinggo*. 9(5), 356–363.
- Muhammad Ainul Yaqin, Rifa'i, M., Al Zahra, F., Rofiki, M., Diana, E., Saad, M., Tijani, A., & Habsy, M. (2022). *PKM Pelatihan Kepemimpinan dan Manajemen Bagi Pengurus Organisasi Santri ISMAH*. *NUSANTARA: Jurnal Pengabdian Kepada Masyarakat*, 2(3), 57–73. <https://doi.org/10.55606/nusantara.v2i3.260>
- Multazami, A. A., & Diana, E. (2025). *Implementasi Manajemen Kedisiplinan: Upaya Meningkatkan Konsistensi Ibadah Santri*. 10(4), 1930–1943.
- Mundiri, A., & Julia, F. (2025). *Reimagining Islamic Educational Leadership: The Integrative Leadership Style of Kyai in Pesantren-Based Higher Education Institutions*. 9(2), 288–301.

- Mundiri, A., Sain, Z. H., & Khomairohtusshiyamah, U. (2025). *Reconstructing Transformational Leadership Through Islamic Values: A Model for Improving Institutional Performance in Islamic Education*. *Mozaic*, 11(2), 125–136. <https://doi.org/10.47776/mozaic.v11i2.1829>
- Najiburohman, N., Hefniy, H., & Alwahedi, M. A. A. (2025). *Virtual School Tours: Boosting Community Interest and Attracting Prospective Students*. *EVALUASI: Jurnal Manajemen Pendidikan Islam*, 9(2), 340–353. <https://doi.org/10.32478/3gtzvf72>
- Rohimah, Nurhaidah, S. N., & Soraya, S. (2024). *Manajemen Sekolah Dalam Pengembangan Sinergitas Guru Pendidikan Agama Islam*. *Tadbir Muwahhid*, 8(1), 31–52. <https://doi.org/10.30997/jtm.v8i1.12802>
- Siahaan, J. R., Rianti, I., & Pratiwi, R. P. (2021). *Peran Kepemimpinan Transformasional Terhadap Keterikatan Kerja Dengan Kepuasan Kerja dan Motivasi Sebagai Mediasi*. *MASTER: Jurnal Manajemen Strategik Kewirausahaan*, 1(2), 137–150. <https://doi.org/10.37366/master.v1i2.195>
- Sudirman. (2022). *Mendesain Pembelajaran Tematik-Integratif Berpanduan Prana Kunci G*. *Educational: Jurnal Inovasi Pendidikan & Pengajaran*, 2(3), 263–273. <https://doi.org/10.51878/educational.v2i3.1542>
- Syafiih, M. (2025). *The Future of Education in the Digital Era: Between Technological Innovation and Equitable Access*. *Proceeding of International Conference on Education, Society and Humanity*, 3(1), 737–741.
- Waruwu, M., Pu'at, S. N., Utami, P. R., Yanti, E., & Rusydiana, M. (2025). *Metode Penelitian Kuantitatif: Konsep, Jenis, Tahapan dan Kelebihan*. *Jurnal Ilmiah Profesi Pendidikan*, 10(1), 917–932. <https://doi.org/10.29303/jipp.v10i1.3057>
- Zahra, F. A., Hasanah, M., Hasanah, N., Wijayanti, I., Wulandari, F., Barillah, Z. T., & Mufidah, M. (2021). *PKM Penyuluhan Akibat Hukum Perkawinan Di Bawah Tangan (Sirri) Bagi Santriwati Pondok Pesantren Al-Mashduqiah Probolinggo*. *Guyub: Journal of Community Engagement*, 2(3), 916–928. <https://doi.org/10.33650/guyub.v2i3.2887>
- Zubaid, A., & Saidah, S. (2025). *Development of Islamic Religious Education Based on Independent Curriculum in Madrasah Aliyah*. *Edukatif*, 6(2), 753–765. <https://doi.org/10.51276/edu.v6i2.1177>