



Strategic Brainstorming on AI Literacy and Postgraduate Collaboration Between FKIP UNTAN and Mempawah Educators

Ahmad Yani T.¹, Agus Wartiningsih², Halida³, Mimi Haetami⁴, Hairida⁵, Imran⁶,
Kurnia Ningsih⁷, Venny Karolina^{8*}, Ajerin Karim⁹

^{1, 2, 3, 4, 5, 6, 7, 8, 9} Universitas Tanjungpura, Pontianak, Indonesia

*Corresponding author: vennykarolina@fkip.untan.ac.id

Received 01-10-2025

Revised 30-10-2025

Published 04-12-2025

ABSTRAK

Program pengabdian kepada masyarakat ini mengeksplorasi potensi kolaborasi antara Program Pascasarjana FKIP Universitas Tanjungpura dengan 40 guru dan kepala sekolah di Kabupaten Mempawah melalui brainstorming strategis. Kegiatan ini menggunakan pendekatan partisipatif yang meliputi pengenalan program, *Focus Group Discussion*, evaluasi, dan perencanaan tindak lanjut. Data dikumpulkan menggunakan instrumen survei kuesioner terbuka dan dianalisis melalui analisis tematik dengan teknik *open coding*. Hasil menunjukkan bahwa 75% peserta memandang AI sebagai peluang pendidikan, sementara 22,5% mengakui manfaat sekaligus risiko. Ekspektasi kolaborasi utama berpusat pada akses pendidikan pascasarjana, dengan penekanan pada dukungan beasiswa dan proses penerimaan yang disederhanakan. Peserta juga memprioritaskan pelatihan peningkatan kapasitas, kolaborasi institusional dengan MKKS dan MGMP, serta pemerataan kesempatan pengembangan profesional. Brainstorming menghasilkan rencana tindak lanjut konkret meliputi penyusunan MoU, program pelatihan guru, penelitian kolaboratif, dan kegiatan pengabdian masyarakat yang menjawab kebutuhan pendidikan di wilayah tersebut.

Kata kunci: *Brainstorming* strategis; Kolaborasi Universitas-Sekolah; Pendidikan pascasarjana; Pengembangan profesional guru

ABSTRACT

This community service program explored collaboration potential between FKIP Tanjungpura University's Postgraduate Program and 40 teachers and principals in Mempawah Regency through strategic brainstorming. The activity employed a participatory approach involving program introduction, Focus Group Discussions, evaluation, and follow-up planning. Data were collected using open-ended questionnaire survey instruments and analyzed through thematic analysis with open coding technique. Results revealed that 75% of participants viewed AI as an educational opportunity, while 22.5% recognized both benefits and risks. Primary collaboration expectations centered on graduate education access, with emphasis on scholarship support and simplified admission processes. Participants also prioritized capacity-building workshops, institutional collaboration with MKKS and MGMP, and equity in professional development opportunities. The brainstorming yielded concrete follow-up plans including MoU drafting, teacher training programs, collaborative research initiatives, and community service activities addressing educational needs in the region.

Keywords: *Strategic brainstorming, University-school collaboration, Postgraduate education, Teacher professional development*



INTRODUCTION

Education forms the cornerstone of national development because it plays a strategic role in enhancing the quality of human resources. This role requires commitment, continuous effort, and persistence in presenting educational transformations that are both innovative and relevant (Nababan et al., 2024; Nugroho et al., 2022). High-quality human resources are a vital asset that demand priority attention, making the consistent and sustainable development of competencies indispensable (Yusri & Amin, 2023). To meet the challenges of a rapidly changing era, individuals must possess responsive intellectual abilities, analytical skills, the capacity to integrate diverse sources of information, and resilience in making decisions grounded in logic and scientific reasoning (Widiastuti et al., 2022).

Higher education plays a crucial role in fostering innovation, strengthening collaborative networks, and delivering tangible contributions to society, especially in the field of education (Wati et al., 2022). Professional collaboration has also gained increasing importance in recent decades, especially within the dynamic context of education (Hsieh et al., 2024). The FKIP Postgraduate Program of Tanjungpura University possesses significant academic, research, and scientific networking potential through its master's and doctoral programs. However, this potential has not yet been fully aligned with the practical needs of teachers and principals, particularly in Mempawah Regency. As a strategic region in West Kalimantan, Mempawah hosts numerous educational institutions that require capacity building through university-supported collaboration, training, and mentoring. Teachers and principals, as key actors in schools, play a decisive role in advancing the quality of education within their institutions (Waruwu et al., 2024). Moreover, cooperation between teachers and principals as agents of change is highly influential in educational advancement through collaborative leadership and a shared vision (Palumbo & Manna, 2019).

Nevertheless, teachers and principals, as the front-liners in school education, face complex and evolving challenges in curriculum implementation and school management aimed at improving learning quality and leadership (Yusutria et al., 2022). As change agents, they introduce organizational innovations, foster shared knowledge to support transformation, and cultivate a positive climate conducive to innovation (Meyer et al., 2023). To optimize professional growth, comprehensive training and development programs are required to enhance the competence, knowledge, and professionalism of educators and education staff (Fitri & Jamilus, 2023).

Within this framework, strategic brainstorming emerges as an effective initial method for establishing communication and exchanging ideas between the FKIP Untan Postgraduate Program and teachers and principals. Through this approach, both parties can share perspectives, identify needs, formulate common challenges, and design opportunities for collaboration that is relevant, applicable, and sustainable. Educational strategy management must encompass the formulation of a shared vision, mission, and objectives, along with the design of long-term and short-term programs

supported by a clear budget (Cahyono et al., 2023). In community engagement, collaborative strategies between educational institutions contribute to institutional sustainability through carefully planned and participatory approaches. This underscores the significance of strategic methods such as brainstorming in stimulating active participation and generating innovative solutions (Sonia & Hamid, 2023). Teachers and lecturers thus collaborate as educational experts who conduct in-depth investigations into diverse aspects of learning (Suseno et al., 2022).

Through this program, a synergistic partnership is expected to emerge between the FKIP Untan Postgraduate Program and the educational community in Mempawah Regency. In the context of rapid technological advancement, particularly the integration of Artificial Intelligence (AI) in education, the collaboration between higher education institutions and schools becomes increasingly critical. Teachers and principals require not only access to postgraduate education but also enhanced AI literacy to effectively navigate digital transformation. This strategic brainstorming thus serves dual purposes: exploring pathways for postgraduate collaboration while simultaneously addressing the urgent need for AI competency development among educators. Given the convergence of these challenges—the need for university-school partnerships, professional development, and technological adaptation—a systematic exploration of collaboration potential becomes essential. Based on this background, several research problems are formulated: (1) What is the current condition of the relationship between the FKIP Untan Postgraduate Program and teachers and principals in Mempawah Regency within the context of educational partnership? (2) What potential forms of collaboration can be explored between FKIP Untan Postgraduate and teachers and principals as two main stakeholders in regional educational development? (3) What are the main outcomes of the strategic brainstorming process that can serve as the foundation for designing relevant, sustainable, and mutually beneficial partnerships?

In line with these problem statements, this program has three primary objectives: (1) to identify the current connections and interactions between FKIP Untan Postgraduate and teachers and principals in Mempawah Regency; (2) to explore potential areas of collaboration that can enhance the quality of regional education; and (3) to formulate the results of strategic brainstorming as the basis for developing an applicable and sustainable partnership plan between FKIP Untan Postgraduate and the local educational community.

IMPLEMENTATION METHOD

The implementation of this program is arranged in stages and is mutually sustainable with a participatory and collaborative approach to optimize the potential for cooperation between the Postgraduate Program of FKIP Tanjungpura University and teachers and principals in Mempawah Regency. The stages of program implementation include:

1. Introduction to the FKIP Untan Postgraduate Program

The activity began with an introduction session to the FKIP Universitas Tanjungpura Postgraduate Program, which includes the profile of the Masters and Doctoral Programs in Education, vision and mission, focus of scientific studies, and superior programs that can be developed together with partners in the field.

2. Focus Group Discussion (FGD) and Brainstorming

In this session, participants are divided into small groups to discuss the actual needs of schools, challenges faced, and the form of cooperation expected with higher education institutions. The facilitator will guide the discussion so that each participant can convey their perspectives and aspirations openly. The results are then used as material for compiling a concrete cooperation concept.

3. Evaluation and Reflection

After the discussion session, an evaluation was conducted through an open forum and short questionnaire to capture the impressions, suggestions, and expectations of participants regarding the partnership plan. This stage aims to assess the extent of the involvement and understanding of participants in the collaboration process.

4. Compilation of Follow-up Action Plans

Based on the results of brainstorming and evaluation, a strategic plan was prepared as an initial draft of the cooperation. This plan includes the preparation of MoU, teacher capacity building training, collaborative research, and community service programs based on school needs.

This PKM activity was organized by the PKM team from the Master of Educational Technology Program, Faculty of Teacher Training and Education, Tanjungpura University. This activity was carried out over one full day in July 2025 in Mempawah Regency and was attended by 40 teachers and principals from various schools in the region.

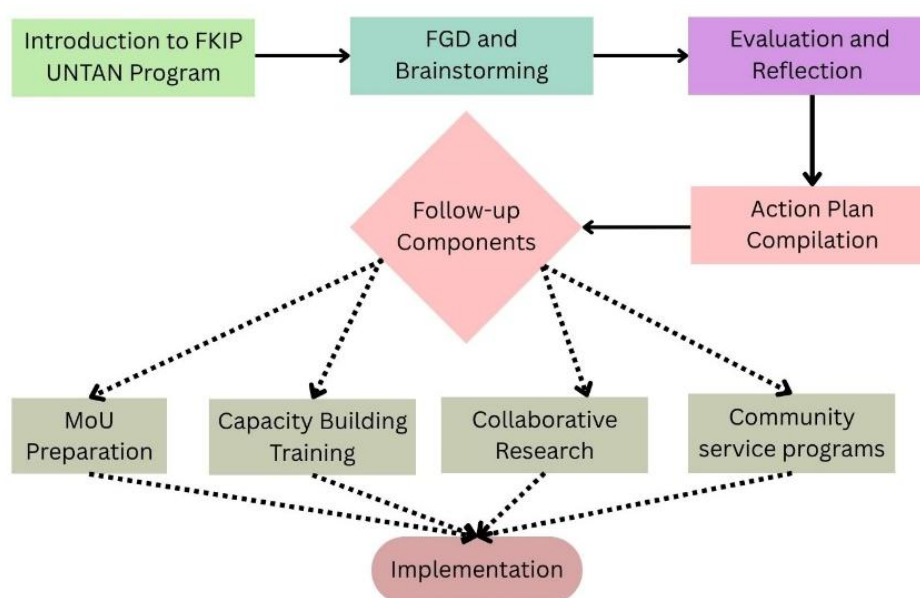


Figure 1. Diagram Flow of Method

ACTIVITY RESULTS AND DISCUSSION

The PKM by the Postgraduate Educational Technology Team of FKIP Tanjungpura University in Mempawah involved 40 teachers and principals to identify educational needs, challenges, and AI-based collaboration opportunities through a participatory approach. The results are as follows:

1. Introduction to FKIP Untan Postgraduate

Through this session, teachers and principals are given a comprehensive overview of the potential for academic collaboration, opportunities for further study, and professional development. The material presented includes the history of the study program, curriculum structure, graduate profiles, partner networks, accreditation achievements, and graduate prospects, complete with student profile videos and testimonials. In addition, the PKM team also explained the registration path, academic requirements, and choices of master's and Doctoral programs. This stage is the foundation for building trust, exploring aspirations, and mapping the school's expectations for the partnership with FKIP Untan Postgraduate.

2. Focus Group Discussion (FGD) and Brainstorming

Following the introduction session, Focus Group Discussions (FGD) and brainstorming became the core activities to explore potential collaboration between the FKIP Untan Postgraduate Program and schools. This stage identified teachers' and principals' needs, real challenges, and aspirations as the foundation for strategic cooperation. Conducted offline with a participatory approach, discussions covered themes such as AI use in learning, professional challenges, continuous training, research opportunities, and expectations for FKIP Untan's support. Participants shared insights verbally and through written notes, which were analyzed qualitatively. From 40 responses, all participants recognized AI's educational benefits, and 80% expressed concrete collaboration expectations. Open coding of the data generated six categories, synthesized into two major themes summarized in Table 1.

Theme 1: Perceptions of AI in Education

Participants' perspectives on AI in education were categorized based on their primary stance, revealing that thirty participants, representing seventy-five percent of the total, viewed AI as an opportunity, while nine participants, accounting for twenty-two point five percent, saw AI as both an opportunity and a threat, and only one participant, or two point five percent, perceived AI as primarily threatening. This distribution indicates overwhelmingly positive attitudes toward AI integration, with most participants recognizing its educational potential while acknowledging the need for careful implementation.

Category: Opportunities

a. Improving efficiency and innovation

Many participants emphasized that AI simplifies teachers' administrative tasks, supports lesson preparation, and accelerates access to information. AI was also seen

as an innovative tool that helps integrate technology into teaching and enriches student learning.

b. Partner for critical thinking and problem-solving

Teachers noted that AI encourages them to analyze, refine, and adapt AI-generated outputs, making it a companion in critical thinking and reflective practice. AI was also valued for assisting students in research, problem-solving, and accessing learning resources.

c. Advancing digital literacy and professional competence

Several participants regarded AI as a revolutionary step in education, one that strengthens teachers' digital literacy and enhances professional development in line with the demands of the digital era.'

Category: Challenges/Threats

a. Over-reliance and reduced creativity

Concerns were raised that students might become passive, lazy, or less critical if they rely too heavily on AI. Overdependence could also reduce originality and creative thinking in both teaching and learning.

b. Validity and ethical issues

Participants highlighted risks such as inaccurate or unchecked information, plagiarism, and unethical use of AI. Some also expressed worry that AI-driven automation might threaten aspects of teachers' professional roles in the future.

Table 1. Participant Response Analysis Result

Themes	Categories	Codes / Key Findings	% of Participants (n=40)
1. Perceptions of AI in Education	Opportunities	- Simplifies administrative work and accelerates access to information (48%) - Supports innovative pedagogy and digital learning (42%) - Acts as a partner for critical thinking and problem-solving (35%) - Facilitates student learning and research (30%) - Seen as a revolutionary step to improve digital literacy and teacher competence (25%)	72% (overall)
	Challenges / Threats	- Risk of over-reliance → laziness / reduced critical thinking (20%) - Accuracy issues: invalid or unchecked information (15%) - Reduced creativity and originality (12%)- Ethical concerns: plagiarism, misuse, overdependence (10%) - Fear of job displacement due to automation (8%)	28% (overall)
2. Expectations for Collaboration with FKIP Untan	Further Education Access	- Simplified admission to S2 and S3 (45%)- Scholarships and financial aid (42%) - More study program options (e.g., History) (12%) - Entrance tests adapted to teachers' conditions (10%)	65% (overall)

Themes	Categories	Codes / Key Findings	% of Participants (n=40)
	Capacity Building	- Routine workshops, FGDs, and teacher training (AI literacy, pedagogy, curriculum) (40%) - Seminars to share lecturer/student research outcomes (20%) - Training in scientific writing and publications (15%)	55% (overall)
	Institutional Collaboration	- Stronger synergy with MKKS, MGMP, local education offices (25%) - Joint programs in community service, research, professional training (18%) - Long-term school–university networking (12%)	42% (overall)
	Equity and Support	- Prioritize local teachers in postgraduate access (20%) - Regional government support for tuition/beasiswa (15%) - Sustainable teacher professional growth programs (12%)	38% (overall)

Theme 2: Expectations for Collaboration with FKIP Untan

The most frequently mentioned collaboration expectation involved facilitating access to graduate education, with twenty-two of thirty-two participants, or sixty-eight point seven five percent, specifically requesting graduate education opportunities. Fifteen participants sought scholarship support for master's and doctoral programs, twelve sought easier access to graduate programs, and eight requested affordable tuition options. Representative quotes included hopes that FKIP Untan would facilitate participation in graduate courses with scholarships, as noted by Participant 2, and expectations for FKIP Untan to bridge cooperation with Mempawah Regency government in financing scholarships for teachers' programs, as mentioned by Participant 20.

Category: Further Education Access

a. Postgraduate opportunities and scholarships

Participants strongly hoped for easier access to continue their studies at the master's and doctoral levels, supported by scholarships or affordable tuition schemes. Some also expected broader program options, such as postgraduate studies in History, and more flexible admission processes tailored to working teachers.

Category: Capacity Building

a. Workshops and training programs

Teachers requested regular capacity-building programs such as workshops, FGDs, and professional training, particularly on AI literacy, curriculum innovation, and differentiated learning strategies.

b. Research dissemination and writing skills

Participants expected seminars where lecturers and students could share research findings with teachers, along with training to improve teachers' ability in academic writing and publications.

Category: Institutional Collaboration

a. Strengthened partnerships

A key expectation was to establish systematic collaboration between FKIP Untan, MKKS, MGMP, and local education authorities through joint programs in community service, collaborative research, and professional training.

Category: Equity and Support

a. Prioritizing local teachers and government support

Teachers hoped for prioritization of local educators in postgraduate admissions and scholarships. They also called for cooperation with regional governments to provide funding support and ensure continuous professional growth rather than one-time initiatives.

The FGD and brainstorming sessions became a productive space for teachers and principals to voice their needs and aspirations directly. AI as the main topic shows that teachers have realized the importance of adapting to technology. Through this discussion, FKIP Untan received valuable input as a basis for compiling a responsive, applicable, and transformative cooperation plan.

3. Evaluation and Reflection

Reflective activities were conducted to evaluate participant involvement, the extent of their understanding of the partnership objectives, and future expectations. The evaluation was conducted openly and through a short questionnaire written in the form of sticky notes. The results showed that the majority of participants felt that this activity was very useful and inspiring and opened up insights into university-school collaboration.

4. Preparation of Follow-up Plan

The final stage of the PKM activity, in the form of preparing a follow-up plan, was compiled systematically based on the results of brainstorming and participant evaluation. The goal is that the ideas produced are not only discourse but can be realized in the form of real cooperation between the FKIP Untan Postgraduate Program and teachers and principals in Mempawah Regency. This plan was formulated by considering input from 40 participants and is directed at the potential for relevant, applicable, and sustainable collaboration, as follows:

a. Drafting of Memorandum of Understanding (MoU)

As an initial step in formalizing the cooperation, it is planned to draft a Memorandum of Understanding (MoU) between the Postgraduate Program of FKIP Untan and partner schools, especially those under the auspices of the MKKS Mempawah Regency. This MoU will contain the commitment of both parties to 1)

Establish cooperation in the fields of education, training, and research; 2) Provide access for teachers to continue their education to the master's and Doctoral levels; and 3) Become the legal basis for the implementation of joint academic and non-academic programs. This step is important as the basis for the legality and sustainability of the cooperation, as well as a symbol of an official and actionable partnership bond.

b. Teacher Capacity Building Training

Based on the results of the FGD discussion, the teachers expressed a high need for training that can improve their professional competence. Therefore, a plan was drawn up to organize a continuous training program (in-service training) that includes: 1) Technology literacy and the use of AI in learning, 2) Independent Curriculum-based learning strategies, 3) Innovation in the creation of media and teaching modules, and 4) Improving the ability to write scientific papers and publications.

The training will be carried out in stages and adjusted to the needs of each educational unit, both online and offline. Several trainings are also planned to be carried out in the form of collaboration with MGMP and school supervisors.

c. Collaborative Research between Lecturers and Teachers

To strengthen the scientific culture in schools and increase the relevance of campus research results to educational practices in the field, a collaborative research program was drawn up involving FKIP Postgraduate lecturers and partner teachers. The focus of the research will be directed at: 1) Innovation in classroom learning, 2) Implementation of educational technology (including AI), 3) Evaluation of curriculum implementation, and 4) Strategies for strengthening literacy and numeracy. This collaborative research is not only expected to produce joint publications but also contextual solutions to real problems in schools



Figure 2. The atmosphere of the strategic brainstorming session

The results show that the PKM program successfully opened dialogue, explored aspirations, and designed strategic cooperation between FKIP Untan and educators. Teachers and principals expressed strong enthusiasm for future collaboration and

gained new insights, especially regarding flexible, technology-based learning supported by scholarships. Beyond promoting the FKIP Untan Postgraduate Program, the activity became a reflective and participatory forum to identify real needs, encourage wise AI use, design locally relevant academic collaborations, and build productive networks among FKIP, schools, MKKS, and education supervisors. The discussion on AI integration highlighted both teachers' readiness for digital transformation and their need for guidance. Overall, the PKM fostered network strengthening, teacher capacity building, and long-term cooperation planning, producing valuable field data for contextual and sustainable follow-up programs.

CONCLUSION AND SUGGESTION

PKM activities with strategic brainstorming successfully explored collaboration potential between FKIP Untan Postgraduate Program and educators in Mempawah Regency. Through introductions, FGDs, and evaluations, participants identified needs and collaborative expectations, showing strong interest in further study, competency training, and AI technology. The activity produced follow-up plans including MoU drafting, training programs, collaborative research, and community service, establishing a foundation for sustainable collaboration. FKIP Untan Postgraduate Program should implement structured collaborative programs, expand regional partnerships, and prioritize technology literacy and AI training for teachers to enable effective and equitable educational transformation.

REFERENCES

- Cahyono, I., Syaifudin, M., & Andriani, T. (2023). Manajemen Strategi Kerjasama dalam Pendidikan. *Jurnal Manajemen Pendidikan dan Ilmu Sosial*, 4(1), 483–488. <https://doi.org/10.38035/jmpis.v4i1.1482>
- Fitri, L., & Jamilus. (2023). Transformasi Sumber Daya Manusia pada Lembaga Pendidikan dalam Upaya Meningkatkan Kualitas dan Kinerja. . . *Dirasah : Jurnal Studi Ilmu Dan Manajemen Pendidikan Islam*, 6(2), 468–479. <https://doi.org/10.58401/dirasah.v6i2.946>
- Hsieh, C.-C., Chen, Y.-R., & Li, H.-C. (2024). Impact of school leadership on teacher professional collaboration: Evidence from multilevel analysis of Taiwan TALIS 2018. *Journal of Professional Capital and Community*, 9(1), 1–18. <https://doi.org/10.1108/jpcc-01-2023-0002>
- Meyer, A., Hartung-Beck, V., Gronostaj, A., Krüger, S., & Richter, D. (2023). How can principal leadership practices promote teacher collaboration and organizational change? A longitudinal multiple case study of three school improvement initiatives. *Journal of Educational Change*, 24(3), 425–455. <https://doi.org/10.1007/s10833-022-09451-9>
- Nababan, M. B., Afrizal, A., Rizal, F., Khairuddin, K., Riski, G. S., & Fatma, E. (2024). Berkolaborasi Tingkatkan Inovasi dan Kualitas Pendidikan Melalui Program Kampus Mengajar. *Jurnal Pengabdian Masyarakat Bangsa*, 2(5), 1622–1632. <https://doi.org/10.59837/jpmmba.v2i5.1056>

- Nugroho, A. S., Suryanti, S., & Wiryanto, W. (2022). Peningkatan Kualitas Guru, Sebanding dengan Peningkatan Pendidikan? *Jurnal Basicedu*, 6(5), 7758–7767. <https://doi.org/10.31004/basicedu.v6i5.3354>
- Palumbo, R., & Manna, R. (2019). Making educational organizations able to change: A literature review. *International Journal of Educational Management*, 33(4), 734–752. <https://doi.org/10.1108/ijem-02-2018-0051>
- Sonia, G., & Hamid, A. L. (2023). Strategi Pengabdian Kepada Masyarakat dalam Pengembangan Lembaga Pendidikan yang Berkelanjutan di Kampus Ma'had Aisyah Bogor. *Addabani: Interdisciplinary Journal of Islamic Education*. <https://e-jurnal.staimuttaqien.ac.id/index.php/addabani/article/view/1373>
- Suseno, N., Purwaningsih, P., Aththibby, A. R., Harjati, P., & Wahono, L. (2022). Kemitraan guru dan dosen dalam menjaga kualitas pembelajaran daring saat Pandemi Covid-19 menghasilkan artikel publikasi bersama. *ABSYARA: Jurnal Pengabdian Pada Masyarakat*, 3(1), 48–59. <https://doi.org/10.29408/ab.v3i1.5732>
- Waruwu, M., Dwikurnaningsih, Y., Ismanto, B., Iriani, A., Satyawati, S. T., & Wasitohadi, W. (2024). Peningkatan Kemampuan Guru dan Kepala Sekolah dalam Penulisan Artikel Penelitian Tindakan Melalui Pelatihan Secara Online. *Magistrorum et Scholarium: Jurnal Pengabdian Masyarakat*, 4(2), 116–128. <https://doi.org/10.24246/jms.v4i22023p116-128>
- Wati, C. N., Sukestiyarno, Y., Sugiharto, D., & Pramono, S. E. (2022). Kolaborasi Perguruan Tinggi dan Industri dalam Implementasi Kurikulum Merdeka Belajar Kampus Merdeka (MBKM). *Prosiding Seminar Nasional Pascasarjana UNNES*. <https://proceeding.unnes.ac.id/snpasca/article/view/1451>
- Widiastuti, I. A. M. S., Murtini, N. M. W., & Anto, R. (2022). Brainstorming as an Effective Learning Strategy to Promote Students' Critical Thinking Skills. *Jurnal Pendidikan Progresif*, 12(2), 969–971. <https://doi.org/10.23960/jpp.v12.i2.202243>
- Yuliani, W., Anggani Linggar Bharati, D., & Warsono, W. (2019). The Effectiveness of Brainstorming and Mind Mapping to Teach Writing Narrative Text for Students with Extrovert and Introvert Personalities. *English Education Journal*, 9(4), 459–466. <https://doi.org/10.15294/eej.v9i4.32098>
- Yusri, Y., & Amin, K. (2023). Pengembangan Manajemen Sumber Daya Manusia pada Lembaga Pendidikan Islam. *Journal on Education*, 05(03), 10040–10052.
- Yusutria, Hopid, A., Febriana, R., Kholifah, N. A., Urbaningkrum, S. M., & Abid, D. F. (2022). *Kompetensi Manajerial Kepala Sekolah dalam Meningkatkan Kinerja Guru dan Mutu Pendidikan di Sekolah Dasar (SD) Muhammadiyah Nitikan Yogyakarta*. Jivaloka Mahacipta “Kesetiaan Kreatif Berkarya.”