

STRENGTHENING STUDENT CHARACTER THROUGH HORIZONTAL GARDEN PROGRAM AT SMP NEGERI 1 BRINGIN

Umi Khalimatul Dzikriyah¹, Afifah Rif'atin Nisa², Muhammad Nurul Ihsan Asmawi³, Miftahcudin Arjuna⁴, Khoirul Bariyyah⁵

¹²³⁴Program Studi Pendidikan Agama Islam, Fakultas Ilmu Tarbiyah dan Keguruan, UIN Salatiga, Salatiga, Indonesia

⁵ SMP N 1 Bringin, Semarang, Indonesia

Correspondence Email: afifahrifatinnisa@gmail.com

ABSTRACT

This article examines the strengthening of the values of cooperation and environmental care through the implementation of the Horizontal Garden Program at SMP Negeri 1 Bringin. This study is motivated by the need for contextual and school-based character education strategies. The research aims to describe the implementation process of the program and analyze its contribution to the development of students' character. A descriptive qualitative approach was employed, using interviews, observations, and documentation as data collection techniques, supported by interactive data analysis. The findings indicate that the program was carried out through several stages, including planning, socialization, core implementation, and plant maintenance, involving teachers, students, and parents. The program facilitated the emergence of cooperative behavior through group work, task division, and coordination among participants. Meanwhile, environmental care developed through students' direct experience in nurturing plants, keeping the garden area clean, and initiating ecological actions without being instructed. The discussion highlights that collective involvement and the social capital built throughout the activities effectively reinforced the internalization of character values. The school environment also showed significant improvements, becoming greener, more orderly, and more supportive of character learning. The study concludes that the Horizontal Garden Program is effective as a model of environment-based character education aligned with the Merdeka Curriculum and has the potential to be adopted by other schools.

Keywords: cooperation; environmental care; character education; horizontal garden; secondary school.

INTRODUCTION

The diversity of ethnic groups in Indonesia, both in rural and urban areas, has the potential to cause social conflict if it is not balanced with a strong sense of nationalism and social awareness. Increasing urbanization also contributes to the emergence of population density, environmental damage, and low public awareness regarding the importance of environmental preservation (H. Y. Saputra dkk., 2024).

Amidst these conditions, the school environment plays a vital role in shaping the character of students. The cleanliness, beauty, and comfort of the school can be achieved through cooperation and mutual assistance (*gotong royong*) between students and teachers. If environmental awareness is low, the school becomes dirty, trash is scattered, and facilities are unmaintained, which ultimately has a negative impact on the learning process in the long term (Kusuma dkk., 2024).

The school environment also plays an important role in shaping and increasing students' learning motivation. A conducive learning atmosphere in terms of facilities, relationships among school members, and teacher support can encourage students to be more enthusiastic in following the learning process, so that educational goals can be optimally achieved (Munthe dkk., 2023). Maintaining environmental cleanliness is not only related to beauty but is also a form of collective responsibility towards shared health. The cooperation of all parties is needed to create an environment that is clean, healthy, and habitable for all school members (Rahmawati dkk., 2024).

SMP Negeri 1 Bringin, located in Bringin District, Semarang Regency, has cool air and quite spacious school grounds. This natural condition is actually a huge asset for the school to build a green and comfortable environment. However, in recent years, obstacles have emerged that hinder the realization of this ideal environment, one of which is the school's proximity to a chicken farm, which causes unpleasant odors (W. N. Saputra & Mulyati, 2025).

In an effort to improve environmental quality, the existence of green open spaces such as horizontal gardens becomes very important. A horizontal garden not only functions to beautify the school but also serves as an educational medium for students and school members to foster a love for nature. Through activities in this garden, school members can strengthen social relationships, develop a sense of togetherness, and cultivate a sense of ownership and responsibility for the surrounding environment (Prayuda dkk., 2025).

In addition, all students are accustomed to maintaining the cleanliness of the bathroom and hand washing area. The responsibility for maintaining school cleanliness is a shared obligation for all school members. The Vice Principal for Curriculum at SMP Negeri 1 Bringin explained that collaborative cleaning activities are carried out daily through class duty rosters. However, the school also has a special program called 'Horizontal Garden,' which is an activity of planting and simultaneously cleaning the entire school area. This program also functions as a greening effort by utilizing empty land to plant various beneficial plants.

This activity represents a transition to the *Kurikulum Merdeka* (Independent Curriculum), which has brought significant changes, especially in the deep learning approach to shaping the graduate profile. Co-curricular activities, which are an evolution of the Pancasila Student Profile Strengthening Project (P5), are now strictly referring to the eight dimensions of the established graduate profile (DPL). The main responsibility for this implementation lies with the Co-Curricular Team (Kharisma dkk., 2023). This team then established the Horizontal Garden Team as a strategic working unit to formulate and structure a series of activities, commencing with the designation of the eight DPLs as the main focus. Given the importance of the program, this research focuses on two things. First, how is the implementation of the Horizontal Garden activity as a means of strengthening the character of mutual cooperation (*gotong royong*) and environmental care at SMP Negeri 1 Bringin.

This focus emphasizes the process of program execution, ranging from the planning stage and implementation to the involvement of students and teachers. Second, what is the impact of the Horizontal Garden activity on the development of students' character of mutual cooperation and environmental awareness. This focus examines the tangible results of the program, aligning with the direction of character education in the *Kurikulum Merdeka*, thus providing an overview of the changes in students' attitudes before and after being involved in the activities.

RESEARCH METHODS

This research employs a qualitative descriptive method with a phenomenological approach (Creswell & Creswell, 2017). The phenomenological approach was selected because it allows the researcher to explore the lived experiences of students involved in the Horizontal Garden activities. The research activities were carried out in Grade IX of SMP N 1 Bringin. The data sources used

consisted of primary and secondary data. "Primary data was obtained directly through documentation, observation, and interviews (Sugiono, 2013). Documentation was carried out by recording and collecting various school documents relevant to the research object. Observation was conducted by directly monitoring the Horizontal Garden activities and students' activities during the process. Open-ended interviews were conducted with informants to gather information regarding the strengthening of the character of mutual cooperation (*gotong royong*) and environmental care through the Horizontal Garden activities, which involve planting. Meanwhile, secondary data was obtained from information concerning Grade IX students, school data, as well as various other supporting data relevant to the research."

"Data analysis in this research involved data reduction, data display, and conclusion drawing. The main strength of the methodology lies in the strict application of Triangulation to ensure the validity of the data. The researcher used source triangulation and technique triangulation (Sugiono, 2013). Technique triangulation was performed by comparing the results of observation, documentation, and interviews to ensure data consistency. Meanwhile, source triangulation was carried out by cross-checking data from various informants, including the Principal or Vice Principal for Curriculum, the Horizontal Garden activity coordinator, and representatives of the Grade IX students. The use of this source triangulation is crucial because it ensures that the resulting findings reflect not only the policies stated by the school management but also the real experiences felt by the students in the field

RESULTS AND DISCUSSION

Implementation of the Horizontal Garden Activity as a Means of Strengthening the Character of Mutual Cooperation and Environmental Care

The research results show that the Horizontal Garden activity at SMP Negeri 1 Bringin is implemented through well-designed, regularly executed steps, involving various parties in the school. The entire process indicates that this program is not only aimed at beautifying and greening the school environment but also serves as a means to foster the character of mutual cooperation (*gotong royong*) and environmental care."

This finding addresses the first problem formulation regarding how the Horizontal Garden activity is implemented and how it can strengthen students' character. The process of implementing the activity is systematically detailed through four stages that illustrate the cycle of project-based character education. These stages in the Horizontal Garden program include:

a. The Planning Stage: Strengthening the Role of Teachers and Instilling Values from the Outset

The planning stage is the most critical part as it determines the success of the entire Horizontal Garden Program implementation. The planning process officially begins through an In-House Training (IHT) activity organized by the Co-Curricular Team at the start of the semester. Through this IHT, teachers receive two types of reinforcement: first, technical briefing on how to plant; and second, strengthening of pedagogical skills for implementing Project-Based Learning (PBL) (Suhartini, 2021). PBL serves as the primary arena for character development within the *Kurikulum* (Zega dkk., 2025).

This is reinforced by the statement from Catur, the Head of the Co-Curricular Team, who said, "We conduct the IHT so that teachers understand the technical aspects of the activity and are able to guide students during the planting practice." Following the IHT activity, the school forms the Horizontal Garden Team, which is tasked with preparing a more detailed implementation plan. This team determines the appropriate plant types for the environmental conditions, develops a coordinated activity schedule, and groups students heterogeneously so that the entire process has clear direction.

In this stage, teachers are prepared not only as technical instructors but also as facilitators in project-based environmental character learning. This role affirms the principle of modern education that character formation is insufficient through verbal explanation alone; it must be achieved through direct experience, mentorship, and teacher modeling (Putri dkk., 2024).

The activity planning also includes establishing the Horizontal Garden Team, which is responsible for arranging the implementation flow, selecting the plant species to be used, analyzing facility and infrastructure needs, and determining the division of students into work groups. Furthermore, the teachers conduct a field visit to Celosia to learn planting and care techniques, ensuring that the material provided to students has a strong knowledge base.

This planning stage reflects the application of Ki Hajar Dewantara's principle of "ngerti, ngroso, lan nglakoni" (understanding, feeling/internalizing, and taking action), which

emphasizes the importance of comprehension, appreciation, and real action in character education (Laily dkk., 2024). This comprehensive planning is also in line with the Kurikulum Merdeka, which positions the Pancasila Student Profile Strengthening Project (P5) as a means of developing character based on direct experience and real-life situations surrounding the students (Ulandari & Rapita, 2023).

The plan demonstrates that the school is not merely targeting the physical construction of a garden but is also striving to instill the values of mutual cooperation (gotong royong), responsibility, teamwork skills, and environmental care.

b. The Socialization Stage: Preparing Students and Developing Character Awareness

The socialization was carried out two weeks before the planting activity commenced. In this stage, teachers explained the program objectives, the technical rules for planting, the division of group tasks, and the character values expected to emerge from the activity. Socialization did not only function as an information delivery but also as an initial effort to build character awareness among students (Ulandari & Rapita, 2023).

Through the complete explanation, students understood that the Horizontal Garden Program was not just a planting activity but was part of the process of character formation such as mutual cooperation (gotong royong), responsibility, discipline, and environmental care. Thus, the socialization stage supports the principle of character education that emphasizes habituation through comprehension, internalization, and continuous practice.

It is also during this stage that students began to form groups, determine their respective roles, prepare equipment, and establish communication among members. These activities develop students' soft skills, particularly in terms of cooperation, communication, and task management within the group.

c. The Core Implementation Stage: Direct Practice and Internalization of Mutual Cooperation Values

The core implementation of the activity lasted for two days. On the first day, students participated in a briefing session through educational videos explaining basic planting techniques and how to care for plants. This briefing was provided to standardize students' understanding so that there were no significant knowledge disparities and all students could be fairly involved.

On the second day, students began carrying out the planting practice directly. Field observations showed that the attitude of mutual cooperation (gotong royong) emerged naturally throughout the activity process. Students helped each other in preparing the planting medium, loosening the soil, filling the polybags, arranging the pots, and watering. In fact, some students who had finished their tasks voluntarily helped other groups that were still facing constraints.

The phenomenon of mutual cooperation observed during this activity can be explained through Putnam's Social Capital Theory Putnam (2000). Putnam explains that the behavior of mutual cooperation grows from three elements of social capital, namely:

1) Trust

Trust among students makes them more comfortable working together, relying on each other, and providing assistance without hesitation or suspicion.

2) Norms

The values of togetherness, cooperation, and mutual assistance become the prevailing norms that guide students' behavior during the activity.

3) Networks

The relationships established among group members and between groups facilitate coordination, allowing mutual cooperation to be created more effectively.

Through this theory, it can be understood that the Horizontal Garden activity not only facilitates cooperation among students but also strengthens the social capital that is the basis for the emergence of mutual cooperation behavior.

This activity also demonstrates the application of the mutual cooperation dimension in the Pancasila Student Profile, such as the ability to collaborate, caring, and the attitude of sharing. The internalization of these values occurs naturally through experiential learning, which is proven to be more effective compared to verbal delivery or lectures alone (Nasucha et al., 2020).

d. The Maintenance Stage: Habituation of Environmental Care and Collective Responsibility

The maintenance stage is a critical phase where the character value of environmental care develops sustainably. In this stage, students carry out the task of plant maintenance through a determined duty roster for each group. Activities such as watering the plants, pulling weeds,

cleaning the garden area, and routinely checking the plant conditions further cultivate the attitude of environmental care in the students.

Some students even showed greater initiative, for example, helping to water plants from other groups that appeared wilted or picking up trash in areas that were not actually part of their group's tasks. This finding indicates that students' concern has developed from merely fulfilling an obligation to a form of environmental awareness that emerges from within themselves.

This phenomenon can be understood through the Environmental Attitude Theory developed by Hines, Hungerford, dan Tomera., (1987). This theory explains that environmentally caring behavior is influenced by four main elements:

1) Environmental Knowledge

Students' understanding of the function of plants, the importance of clean air, and the impact of pollution increases their awareness of the environmental condition.

2) Positive Attitude Towards the Environment

After understanding the benefits of a well-maintained environment, students begin to have a positive attitude and a desire to care for it.

3) Intention to Behave Environmentally Friendly

This positive attitude then encourages students to intend to take actions that support environmental sustainability.

4) Actual Behavior

The sequence of knowledge → attitude → intention → action is reflected through the students' consistency in caring for the plants every day.

Thus, this theory shows that the knowledge and direct experience provided by the school during the Horizontal Garden Program can shape an environmentally caring attitude that is ultimately reflected in the students' actual behavior.

e. Collaboration of Teachers, Students, and Parents as an Ecosystem for Character Education

The implementation of the Horizontal Garden Program also involves close cooperation among teachers, students, and parents. Parents contribute by providing plants and equipment, while teachers provide routine mentorship every Monday through Learning Community (Kombel) activities. This form of collaboration aligns with the view of Desrani, (2025), who states that character education cannot be carried out solely within the classroom but requires support from the entire education ecosystem.

Parental participation indicates a value of shared responsibility between the school and the family in shaping students' character. On the other hand, the teachers' involvement in mentoring the habituation activities ensures that the implementation of the Horizontal Garden Program runs more consistently and sustainably.

Overall, the synergy among these various parties strengthens the school's social capital, enhances environmental care, and ensures that the values of mutual cooperation (*gotong royong*) and environmental care are truly internalized within the students.

The Impact of the Horizontal Garden Activity on the Development of Students' Character of Mutual Cooperation and Environmental Awareness

In the Horizontal Garden activity, several impacts were found in the development of the character of mutual cooperation (*gotong royong*) and environmental care, including:

a. Impact on the Character of Mutual Cooperation

Interview data, field observations, and Student Worksheet (LKM) documents show that this activity successfully improved students' abilities in cooperating, communicating, and helping friends. To strengthen data transparency, the observation results are summarized as follows:

Table 1. Results of Observation of Gotong Royong Character

| No. | Indicator | Empirical Description | Result Category |
|-----|--|--|-----------------|
| 1. | Mutual Cooperation (<i>Gotong Royong</i>) | Cooperation among students: dividing tasks (planting, watering, cleaning) and completing tasks together. | Very good |
| 2. | Mutual Cooperation (<i>Gotong Royong</i>) | Mutual assistance in tasks: helping friends who are facing difficulties without being asked. | Very good |
| 3. | Mutual Cooperation (<i>Gotong Royong</i>) | Group responsibility: each member carries out the agreed-upon role. | Very good |
| 4. | Mutual Cooperation (<i>Gotong Royong</i>) | Communication & coordination: there is task division, brief discussion, or joint planning in the field. | Good |

The observation scores show a category of good to very good across the indicators of cooperation, initiative to help, and group coordination. This finding is consistent with the view that *gotong royong* (mutual cooperation) is not merely situational collaboration but a deep national cultural value of Indonesia a highly important social capital. This concept is reinforced by the theory that *gotong royong* fosters trust, norms, and networks, which become the foundation for healthy collective behavior among students." Mawardi et al (2024) state that *gotong royong* serves as a cultural moral foundation in the context of law and social harmony. They demonstrate that the spirit of mutual assistance and cooperation in the gotong royong culture strengthens social cohesion, encourages shared responsibility, and upholds social justice as part of society's legal norms.

Marhayati (2021) also asserts that character education must incorporate the value of mutual cooperation through collaborative activities. Their study shows that teachers use strategies such as giving direct examples, praise rewards, and group-based learning so that students internalize the attitude of mutual assistance and cooperation from an early age.

The habituation of group work, sharing tools, and joint task completion strengthens collaborative ability as listed in the sub-elements of the Pancasila Student Profile dimension: collaboration, caring, and sharing (Sunarto et al, 2024). The mutual cooperation attitude that emerged was not only situational but developed into character. This is evident from students' initiative to help without being asked, including looking for plants for friends who had not yet obtained them, and completing group work together despite facing equipment limitations. This phenomenon marks a behavioral shift from external compliance to voluntary initiative, demonstrating students' autonomy and self-regulation in executing character values.

b. Impact on the Character of Environmental Care

This activity also demonstrated a strong impact on the aspect of environmental care. Students showed an increase in ecological awareness through direct actions such as routinely watering the plants, maintaining the cleanliness of the garden area, pulling out weeds, and ensuring that no polybag waste was left behind.

Table 2. Observation Results of Environmental Concern Character

| No. | Indicator | Empirical Description | Result Category |
|-----|--------------------|--|-----------------|
| 1. | Environmental Care | Maintaining garden cleanliness: cleaning up remaining plant debris/trash after the activity. | Very good |
| 2. | Environmental Care | Initiative in plant care: watering/replacing/weeding without being instructed. | Very good |
| 3. | Environmental Care | Not littering during the activity. | Very good |
| 4. | Environmental Care | Concern for plants outside their own group: participating in caring for/helping when finding other plants needing attention. | Good |

Field observations noted that most environmental care indicators were in the very good category. This behavioral change is consistent with the Environmental Attitude Theory Theory

Bamberg & Guido (2007), , which shows that the concrete experience of the Horizontal Garden Program successfully internalized values through the cycle of Knowledge → Attitude → Intention → Action. Students' reflections in the Student Worksheets (LKM) demonstrate that they understand that maintaining the environment is not solely an individual responsibility but a collective responsibility as school members. The students' consistent and tangible actions in maintenance are proof of the successful internalization of these values in their daily behavior. This finding supports Mulyatin (2022) view on the importance of environmental education in shaping environmentally friendly mindset, attitudes, and habits.

c. Environmental Impact and Contribution to the School Ecosystem

The impact of the Horizontal Garden activity extends from individual behavior to the overall improvement of the school ecosystem.

1) Improvement of the Physical Environment

The utilization of empty land to plant various beneficial plants has transformed the physical environment of SMP N 1 Bringin into a functional green area. This effort proactively addresses the initial constraints faced by the school, such as internal cleanliness issues and the potential impact of unpleasant odors due to the chicken farm in the surrounding school environment.

2) Improvement of the Social Climate

This program creates a shared sense of ownership over school facilities. Mutual cooperation (*gotong royong*) and environmental care become collective habits evident from the cooperation between groups, which in turn strengthens social interaction and builds a sense of togetherness among students.

Through concrete activities, students not only understand the concept of environmental care but genuinely internalize this value in their daily behavior. Research data indicates that the impact of the Horizontal Garden activity occurs not only at the individual level but also on the school culture. This impact shows that the concrete experience provided by the Horizontal Garden Program is aligned with the goal of character education in the Kurikulum Merdeka, which is to shape students' character through meaningful, contextual, and sustainable activities.

Research data indicates that the impact of the Horizontal Garden activity occurs not only at the individual level but also on the school culture. Mutual cooperation (*gotong royong*) and environmental care become collective habits evident from the way students maintain the plants, cooperate between groups, and possess a sense of ownership over school facilities.

This impact shows that the concrete experience provided by the Horizontal Garden Program is aligned with the goal of character education in the Kurikulum Merdeka, which is to shape students' character through meaningful, contextual, and sustainable activities.

CONCLUSIONS

The implementation of the activity shows that the value of mutual cooperation (*gotong royong*) grows through the practice of group work, mutual assistance, role division, and coordination among students. Social capital in the form of mutual trust, togetherness, and harmonious relationships also strengthens the process of internalizing this value. On the other hand, the character of environmental care develops through direct experience in tending to plants, maintaining the cleanliness of the garden area, and undertaking ecological actions independently. This series of experiences forms a consistent understanding, attitude, and ecological behavior. This program has an impact on changes in student behavior as well as the overall school culture. The school environment becomes greener and more organized, while the social atmosphere becomes increasingly positive due to the growth of a sense of ownership and collective responsibility for school cleanliness. Thus, the Horizontal Garden Program is proven capable of strengthening students' character and is aligned with the principles of the *Kurikulum Merdeka* and the values of the Pancasila Student Profile. This program is also worthy of being used as an example of good practice for the development of environment-based character education in other schools.

BIBLIOGRAPHY

Bamberg, S., & Guido, M. (2007). Twenty years after Hines , Hungerford , and Tomera: A new meta-analysis of psycho-social determinants of pro-environmental behaviour. 27, 14–25. <https://doi.org/10.1016/j.jenvp.2006.12.002>

- Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications. [https://books.google.com/books?hl=id&lr=&id=335ZDwAAQBAJ&oi=fnd&pg=PT16&dq=Creswell,+J.+W.+\(2014\).+Research+Design:+Qualitative,+Quantitative,+and+Mixed+Methods+Approaches+\(4th+ed.\).+Thousand+Oaks,+CA:+SAGE+Publications.&ots=YEwYHRyssl&sig=FGceDARJR6tal8TkxnkRAQON5eA](https://books.google.com/books?hl=id&lr=&id=335ZDwAAQBAJ&oi=fnd&pg=PT16&dq=Creswell,+J.+W.+(2014).+Research+Design:+Qualitative,+Quantitative,+and+Mixed+Methods+Approaches+(4th+ed.).+Thousand+Oaks,+CA:+SAGE+Publications.&ots=YEwYHRyssl&sig=FGceDARJR6tal8TkxnkRAQON5eA)
- Desrani, A. (2025). Strategi dan Metode Pendidikan Karakter: Eksplorasi Peran Guru dalam Pembelajaran di Era Digital. *Al-Afkar: Jurnal Pemikiran Mahasiswa Pendidikan*, 1(1), 41–56.
- Hines, J. M., Hungerford, H. R., & Tomera, A. N. (1987). Analysis and Synthesis of Research on Responsible Environmental Behavior: A Meta-Analysis. *The Journal of Environmental Education*, 18(2), 1–8. <https://doi.org/10.1080/00958964.1987.9943482>
- Kharisma, M. E., Faridi, F., & Yusuf, Z. (2023). Penanaman karakter gotong royong berbasis p5 di smp muhammadiyah 8 batu. *Jurnal Ilmiah Profesi Pendidikan*, 8(2), 1152–1161.
- Kusuma, R. N., Wachidi, W., & Mustofa, T. A. (2024). Internalisasi Nilai-Nilai Agama Islam Dan Budi Pekerti Dalam Sikap Gotong Royong Pada Profil Pelajar Pancasila. *Social: Jurnal Inovasi Pendidikan Ips*, 4(4), 763–772.
- Laily, M. K. M., Usman, A., & Hidayati, N. (2024). Penanaman karakter gotong royong melalui tema kewirausahaan dan kearifan lokal pada P5 kurikulum merdeka. *Jurnal Teknologi Pendidikan*, 1(3), 10–10.
- Marhayati, N. (2021). Internalisasi Budaya Gotong Royong Sebagai Identitas Nasional. 8, 21–42.
- Mawardi, M. F., Mulyana, A., & Suryakencana, U. (2024). Prosiding mimbar justitia. 1(1), 207–232.
- Mulyatin, I. Z. (2022). Internalisasi Nilai-nilai Kesadaran Lingkungan dalam Pembelajaran Pendidikan Agama Islam Materi Thaharah Kelas VII di SMPN 1 Babat Lamongan. Universitas Islam Negeri Sunan Ampel Surabaya.
- Munthe, A. P. B., Khairiah, D. R., Angkat, D. K. A., & Harahap, M. R. H. (2023). PENGARUH LINGKUNGAN TERHADAP MOTIVASI BELAJAR SISWA. *Algebra: Jurnal Pendidikan, Sosial Dan Sains*, 3(2), 83–88.
- Nasucha, Y., Rahmawati, L. E., Silviana, Y., Udin, R., Atitah, S., Astuti, W., Indriyani, N., Safitri, I., Krismonita, F. D. A., & Aji, S. (2020). Penguatan karakter peduli lingkungan melalui program cinta lingkungan di mim kranggan, sukoharjo. *Buletin KKN Pendidikan*, 95–99.
- Prayuda, M. S., Nainggolan, D. M., Hasibuan, N. S., Ginting, E. R. C. B., Ginting, M. B., Ginting, T. G. B., Simarmata, A. P. B., Daeli, M., & Sembiring, A. A. N. (2025). Kegiatan Kebersihan Lingkungan Secara Gotong Royong Serta Pembuatan Taman Di Desa Belang Malum Kecamatan Sidikalang Kabupaten Dairi. *Jurnal Pelayanan dan Pemberdayaan Masyarakat*, 01–08.
- Putnam, R. D. (2000). *Bowling Alone: America's Declining Social Capital*. New York: Simon & Schuster.
- Putri, W., Kurniawan, M. A., & Nuraini, N. (2024). Peran guru dalam membentuk karakter siswa:(Studi kasus di MI Al-Khoeriyah Bogor). *Metta: Jurnal Ilmu Multidisiplin*, 4(4), 1–14.
- Rahmawati, E., Nulhakim, L., Setiawan, S., & Pribadi, R. (2024). Pemanfaatan lingkungan sekolah adiwiyata sebagai sarana penguatan karakter peduli lingkungan. *Jurnal Ilmiah Pendidikan Citra Bakti*, 11(1), 268–280.
- Saputra, H. Y., Syah, N., Dewata, I., Razak, A., Diliarosta, S., & Azhar, A. (2024). Urbanisasi Dan Dampaknya Terhadap Kualitas Lingkungan: Literatur Review.
- Saputra, W. N., & Mulyati, S. (2025). IMPLEMENTASI PROYEK GAYA HIDUP BERKELANJUTAN DALAM PENGUATAN KARAKTER GOTONG ROYONG MELALUI PEMBUATAN PAPAN HIAS DARI LIMBAH BOTOL PLASTIK DI SEKOLAH DASAR KAYUAPAK 1. *Pendas: Jurnal Ilmiah Pendidikan Dasar*, 10(02), 295–308.
- Sugiono. (2013). *Meotode Penelitian Kuantitatif, Kualitatif, R&D*. Alfabeta.
- Suhartini, T. (2021). In House Training (IHT) meningkatkan kompetensi guru dalam menyusun RPP Merdeka Belajar. *Janacitta*, 4(1). <https://www.academia.edu/download/83317713/663.pdf>
- Sunarto, S., Wahyudin, D., Rusman, R., & Dewi, L. (2024). Dwija Cendekia: *Jurnal Riset Pedagogik*. 8(2), 205–220. <https://doi.org/10.20961/jdc.v8i2.86339>
- Ulandari, S., & Rapita, D. D. (2023). Implementasi proyek penguatan profil pelajar pancasila sebagai upaya menguatkan karakter peserta didik. *Jurnal Moral Kemasyarakatan*, 8(2), 116–132.
- Zega, S., Laoli, E. S., Lahagu, A., & Lase, A. (2025). IMPROVING RECYCLING SKILLS THROUGH PROJECT-BASED LEARNING AT SMPN 3 GUNUNGSITOLI ALO'OA. *Algebra: Jurnal Pendidikan, Sosial dan Sains*, 5(3), 687–695.