

ANALYSIS OF SCHOOL STRATEGIC MANAGEMENT POLICY IN OPTIMIZING EDUPARK TO IMPROVE PHYSICAL ACTIVITY AND ENVIRONMENTAL LITERACY

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ABSTRACT

21st century education demands the development of holistic skills of students that are not only focused on academic aspects, but also on strengthening character, physical health, and environmental awareness. This study aims to analyze the strategic management policy of schools in optimizing the function of Edupark as a means of increasing physical activity and environmental literacy of students. This study uses a qualitative approach with a case study design. The research sample in the planning, implementation, and evaluation of the Edupark policy in Junior High Schools in Surabaya City amounted to 25 samples consisting of five principals, ten physical education subject teachers. The results of the interview study, the majority of respondents agreed that Edupark plays an important role in supporting physical activities with an average of 4.1 and contributing to environmental literacy with an average of 3.7. The challenges faced are limited facilities and time, which are reflected in the average value of 3.9. The results of the use of edupark for physical and sports activities are 65%, learning about the environment is 55% and interdisciplinary learning is 35%. The results of teacher perceptions of edupark include an increase in student physical activity of 72%, an increase in environmental knowledge of 58%, students are more involved in environmental issues 55%. The conclusion is that clear and structured managerial policies play an important role in the success of the use of Edupark to support students' physical activities and environmental literacy. Suggestions for further research can integrate Edupark and the education curriculum, as well as the addition of facilities and resources to support learning activities.

Keywords: policy; strategic management; edupark optimization; physical activity; environmental literacy

ANALISIS KEBIJAKAN MANAJEMEN STRATEGIS SEKOLAH DALAM OPTIMALISASI EDUPARK UNTUK MENINGKATKAN AKTIVITAS FISIK DAN LITERASI LINGKUNGAN

ABSTRACT

Pendidikan abad ke-21 menuntut pengembangan keterampilan holistik siswa yang tidak hanya terfokus pada aspek akademik, tetapi juga pada penguatan karakter, kesehatan fisik, serta kesadaran terhadap lingkungan. Penelitian ini bertujuan untuk menganalisis kebijakan manajemen strategis sekolah dalam mengoptimalkan fungsi Edupark sebagai sarana peningkatan aktivitas fisik dan literasi lingkungan peserta didik. Penelitian ini menggunakan pendekatan kualitatif dengan desain studi kasus. Sampel penelitian dalam perencanaan, pelaksanaan, dan evaluasi kebijakan *Edupark* di Sekolah Menengah Pertama Kota Surabaya berjumlah 25 sampel yang terdiri atas lima kepala sekolah, sepuluh guru pengampu mata pelajaran pendidikan jasmani. Hasil penelitian dari wawancara, mayoritas responden setuju bahwa *Edupark* berperan penting dalam mendukung kegiatan fisik rata-rata 4.1 dan memberikan kontribusi terhadap literasi lingkungan rata-rata 3.7. Tantangan yang dihadapi adalah keterbatasan fasilitas dan waktu, yang tercermin pada nilai rata-rata 3.9. Hasil pemanfaatan edupark kegiatan fisik dan olahraga 65%, pembelajaran tentang lingkungan 55% dan pembelajaran interdisipliner 35%. Hasil persepsi guru terhadap edupark terdapat Peningkatan aktivitas fisik siswa 72%, Peningkatan pengetahuan lingkungan 58%, Siswa lebih terlibat dalam isu-isu lingkungan 55% Simpulan kebijakan manajerial yang jelas dan terstruktur berperan penting dalam keberhasilan pemanfaatan *Edupark* untuk mendukung aktivitas fisik dan literasi lingkungan siswa. Saran untuk penelitian lanjutan dapat mengintegrasikan antara *Edupark* dan kurikulum pendidikan, serta penambahan fasilitas dan sumber daya untuk mendukung kegiatan pembelajaran.

Kata Kunci: kebijakan; manajemen strategis; optimalisasi edupark; aktifitas fisik; literasi lingkungan

INTRODUCTION

21st century education demands the development of students' holistic skills that are not only focused on academic aspects, but also on strengthening character, physical health, and environmental awareness (Majdi, 2023). This study focuses on the strategic role of school managerial policies in optimizing the use of Edupark as a means of environment-based learning and physical activity. Schools have a strategic role in creating a learning ecosystem that supports the development of students' potential as a whole (GA Lestari et al., 2023). One form of outdoor learning innovation that is increasingly gaining attention is Edupark (educational park), which is an open space designed for interactive, fun, and contextual learning activities. The use of Edupark is considered effective in increasing students' physical activity while instilling environmental literacy from an early age. However, optimizing the role of Edupark in the school environment is highly dependent on the strategic management policies implemented by the school.

Various previous studies have shown that the development of contextual and integrated learning environments plays a major role in improving students' environmental literacy and physical activity. According to Ramadhana et al., (2022) proves that the PJBL-STEAM learning model is effective in improving environmental literacy through a structured approach to environmental material. In line with that, Muhammad, (2022) emphasizes the importance of school culture innovation through educational game media in supporting the improvement of student literacy and numeracy. Outdoor learning as reviewed by Syamsiah et al., (2021) proven to have a positive impact on students' environmental knowledge, especially when supported by school policies that encourage such activities.

Other research by Riyana et al., (2022) shows that learning devices that integrate environmentally friendly technology are able to build students' ecological awareness. This is in line with the findings Darmadi et al., (2022) which emphasizes the importance of providing reading rooms and environment-based learning spaces as part of a literacy improvement strategy. The project-based learning model has also proven to be effective as demonstrated by Zahara et al., (2023) in developing student engagement in contextual learning, including physical activity. Support from school policies is important in ensuring the sustainability of edupark in increasing physical activity and environmental literacy.

Research results according to Hidayati, (2022) Hasibuan, (2024) in their respective studies underline the importance of utilizing technology, such as QR codes, to strengthen environmental literacy in creative learning activities. Meanwhile, Anwar et al., (2025) specifically raises the issue of school policies in managing outdoor learning spaces such as Edupark to support healthy digital education and a safe environment Nurrohmah, (2021) also noted that school policy programs that promote healthy lifestyles directly increase student physical activity, especially when combined with a supportive school environment.

From the perspective of human resource development and facilities, Hermaliani et al., (2022) highlights the importance of strategic planning-based training and management to support the use of digital media, which is in line with the needs of schools in managing Edupark systematically. Edupark as a learning medium that stimulates physical activity and science literacy, especially when equipped with e-modules and STEM approaches (Idrus & Rahmawati, 2024; Yuliantoro, 2022). Designing learning policies that take into account the surrounding environment and healthy lifestyles is very relevant to encourage active student involvement (Indradjati & Rahayu, 2021; Susilo, 2021).

From the overall study, it is seen that the success of utilizing Edupark in the school context is not only determined by the physical existence of the facility, but also by strategic and collaborative

managerial policies. The integration of teacher training, curriculum integration, and strengthening of school policies are key to optimizing Edupark as a medium to increase students' physical activity and environmental literacy (Huntsman, 2025). Thus, this study strengthens previous findings and fills the gap in the managerial aspects and institutional coordination in the utilization of Edupark systematically and sustainably.

However, despite many studies revealing the great potential of Edupark, not many have examined in depth how school managerial policies can optimize its use in increasing students' physical activity and environmental literacy. Most previous studies have focused more on the practical implementation or direct impact of Edupark (Li, 2025); Major, 2024), without touching on the strategic management policy aspects that are the basis for its management. Research that focuses on the strategic management policies of schools in managing Edupark to achieve these goals is still very limited.

The gap lies in how school managerial policies strategically organize and optimize Edupark as a means of sustainable learning. Most studies tend to highlight the impact of Edupark in terms of student learning outcomes, without discussing in depth the policy process and management strategies carried out by the school. Therefore, this study offers a new contribution by highlighting the strategic management policy aspects of schools in managing Edupark as a systemic approach to increasing physical activity as well as environmental literacy of students.

This research is very important because it provides new insights into the management of educational open spaces in schools, especially in relation to managerial policies that support increasing students' physical activity and environmental literacy (Joisten, 2025; Wu & Jensen, 2022). In the midst of educational developments that increasingly emphasize the development of holistic competencies, this study has the potential to provide significant contributions in designing more effective policies in supporting goals. By introducing integrated and research-based policies, the results of this study can be used as a reference for schools in formulating more optimal policies in managing Edupark.

In addition, this study also contributes to the educational literature that still lacks discussion of the relationship between strategic school management and the use of educational open spaces for health and environmental purposes. As an effort to answer the increasingly complex challenges of education, this study is expected to provide practical solutions that can be implemented by various educational parties in improving the quality of learning and student welfare.

This study aims to analyze the school's strategic management policy in optimizing the function of Edupark as a means of increasing physical activity and environmental literacy of students. Specifically, this study will identify the planning, implementation, and evaluation strategies of Edupark policies carried out by schools in order to support the achievement of holistic and sustainable educational goals.

METHOD

This research uses a qualitative approach with a case study design (Alaslan, 2024; Pratiwi et al., 2024). This approach was chosen because it allows researchers to explore in depth how school managerial policies are implemented in managing Edupark to improve students' physical activity and environmental literacy. With this approach, researchers can understand the phenomenon holistically and contextually, providing a comprehensive picture of the dynamics of policies taking place in the field. The study was conducted in several schools that have integrated Edupark into their education policies.

Participants in this study consisted of various parties directly involved in the planning, implementation, and evaluation of the Edupark policy in Junior High Schools in Surabaya City. The number of respondents was 25 people, consisting of five principals, ten physical education subject teachers, seven Edupark managers or infrastructure staff, and fifteen students per school as direct beneficiaries. The population of this study included all schools that already had an active Edupark, while sampling was carried out purposively, namely by selecting schools that had implemented the policy for at least one year.

This research design combines survey, interview, and observation methods as the main data collection techniques (Wicaksono & Utama, 2022). The survey was conducted to obtain an overview of the perceptions and understanding of teachers, principals, and Edupark managers towards the policy and its implementation. Semi-structured interviews were conducted to dig deeper into the experiences and views of policy makers, as well as the obstacles faced in implementing the policy. Direct observations were conducted at the Edupark location to observe outdoor learning activities, as well as student involvement in physical activities and environmental literacy.

The measurement instruments used in this study included questionnaires, interview guidelines, and observation sheets. The questionnaire was intended to measure the perceptions of principals, teachers, and administrators regarding the existence and effectiveness of managerial policies related to Edupark. Interviews provided qualitative data regarding policy implementation, technical and structural barriers, and personal views on the benefits of Edupark. Observations were conducted to assess student interactions with the physical environment of Edupark as well as the types and frequency of physical activities and environmental literacy activities carried out. The success of the Edupark program was measured based on indicators of increased student physical activity (seen from the frequency of outdoor activities) and increased environmental literacy (seen from students' knowledge and behavior in protecting the environment).

The collected data were analyzed through two main approaches, namely thematic analysis for qualitative data and descriptive analysis for quantitative data. Qualitative data from interviews and observations were analyzed thematically by identifying key themes that emerged, such as supporting policies, the role of the principal, technical challenges, and the level of student engagement. Meanwhile, data from the questionnaire were analyzed descriptively to determine the tendency of respondents' perceptions of the effectiveness of policies implemented in their respective schools.

RESULTS AND DISCUSSION

Based on the data obtained from the questionnaire, interviews, and observations, the following are the results of the analysis obtained from data processing. The results of the questionnaire survey of 25 respondents (principals, teachers, and facility managers), 80% of the schools studied have Edupark. However, only 60% have clear managerial policies related to Edupark management. The average data shows that most respondents agree with the statement that Edupark is used to improve learning outside the classroom.

Table 1. Average Answers to the Questionnaire Scale 1-5

Statement	Average
Edupark is used to enhance physical learning	4.2
Edupark is used to improve environmental literacy	3.8
School policy supports the use of Edupark for learning	4.0
There are challenges in managing Edupark at this school	3.5
Students are actively involved in physical activities at Edupark	4.1
Activities at Edupark are related to increasing environmental awareness.	3.9

The results in table (1) show that respondents generally agree that Edupark increases students' physical activity (average 4.2) and contributes to environmental literacy (average 3.8). Despite the challenges, overall school policies support the use of Edupark for learning activities. Based on interviews with 8 teachers and 7 managers, most felt that Edupark management policies supported students' physical activities, but there were several challenges faced, such as limited facilities and time. Overall, 72% of respondents from the teacher and manager groups agreed that Edupark supported students' physical activities. However, 55% of respondents also felt that the existing policies were still lacking in depth in integrating environmental literacy into daily learning.

Table 2. Average Interview Answers Scale 1-5

Question	Average
Edupark management policy is quite clear and supports students' physical activities.	4.1
Edupark policy supports improving students' environmental literacy	3.7
There are challenges in managing Edupark such as budget or time	3.9
Teachers and students are actively involved in utilizing Edupark for learning.	4.0
The importance of Edupark's role in learning about the environment	4.2

Based on this interview, the majority of respondents agreed that Edupark plays an important role in supporting physical activities (average 4.1) and contributing to environmental literacy (average 3.7). The challenges faced are limited facilities and time, which are reflected in the average value of 3.9.

Table 3: Utilization of Edupark in Learning Activities

Type of activity	Frequency
Physical activities and sports	65%
Learning about the environment	55%
Creativity and arts activities	40%
Interdisciplinary learning	35%

The results of the study in Table 3 show various types of learning activities carried out in Edupark along with the frequency of their use in schools. From the data displayed, it can be seen that Edupark is most widely used for physical activities and sports, which is 65%. This shows that the existence of Edupark greatly supports students' outdoor movement activities, such as gymnastics, running, traditional games, or light sports that support children's health and physical fitness. Furthermore, learning about the environment is in second place with a frequency of use of 55%. This shows that Edupark has functioned as a contextual educational media that encourages students to recognize, understand, and be directly involved in environmental issues, such as waste management, water conservation, or getting to know the biodiversity around the school. Meanwhile, creativity and art activities such as drawing nature, making crafts from natural materials, or other expressive activities are in third place with a frequency of 40%. This shows that Edupark also provides space for the development of students' non-academic skills through a direct experience-based learning approach. Finally, interdisciplinary learning (35%) such as combining science, social studies, and language lessons in one outdoor activity has also begun to be implemented, although the frequency is still relatively low compared to other activities. This is a potential that can be further optimized so that Edupark is not only a space for physical and environmental activities, but also an innovative cross-field learning space.

Table 4: Policy Support for Edupark Management

Statement	Percentage Agree
School policies support physical activity	75%
School policies support environmental literacy	65%
The policy regarding Edupark is quite clear	60%

The results of the study in Table (4) illustrate the extent to which school policies are considered to support Edupark management based on respondents' perceptions. The results show that the highest level of support is found in school policies that support physical activities, with 75% of respondents agreeing. This shows that schools generally have strong policies in encouraging students' physical activity, including the use of open spaces such as Edupark as a means of supporting movement and sports. Furthermore, 65% of respondents agreed that school policies also support environmental literacy. This reflects institutional awareness of the importance of environmental education as part of contextual learning that utilizes open spaces such as Edupark. However, this figure still shows room for improvement to strengthen policy commitments in the aspect of environmental education. Meanwhile, only 60% of respondents agreed that policies related to Edupark management were clear enough. This percentage is relatively lower than the other two indicators, which can be interpreted that even though there is general support, many schools still do not have systematic guidelines or rules in managing Edupark. This ambiguity can be an obstacle to optimal and sustainable use of Edupark. Overall, although school policies show support for physical activities and environmental literacy, there is a need for strengthening regulations and technical clarity in the management of Edupark so that its implementation is more focused and effective.

Table 5: Frequency of Physical Activity in Edupark

Activity Type	Weekly Frequency
Walk or run	3-4 times
Team games (football, basketball)	2-3 times
Educational activities (nature observation, environmental discussions)	1-2 times

Based on direct observations conducted in three schools, it was found that physical activity in Edupark varies, with the average duration of students' physical activity ranging from 45 to 90 minutes per week. The results of the observations in table (5) Most students are involved in physical activities such as walking with a frequency of 3-4 times per week, playing ball, or other sports-related activities 2-3 times. Educational activities 1-2 times per week. The use of Edupark as a means to improve environmental literacy is also seen in several activities, such as discussions on environmental conservation and environmentally friendly practices (eg, recycling and water conservation). However, observations also show that there are significant differences between schools that have more structured policies and those that do not. In schools with more mature managerial policies, environmental literacy is more deeply integrated into daily learning. In schools with less clear policies, although Edupark exists, its use is more limited to physical activities only.

Table 4: Teachers' Perceptions of the Impact of Edupark

Observed Impacts	Percentage of Teachers Who Agree
Increasing students' physical activity	72%
Increased knowledge about the environment	58%
Students are more involved in environmental issues	55%

The results of the study in Table (4) show teachers' perceptions regarding the impact of using Edupark on students' physical activity and environmental literacy. Based on the data obtained, 72% of teachers agreed that the use of Edupark has contributed to increasing students' physical activity. This shows that Edupark has succeeded in becoming an effective means of encouraging students to be more physically active, both through structured sports and other outdoor physical activities, which in turn supports their health and fitness. Furthermore, 58% of teachers agreed that the use of Edupark increased students' knowledge of the environment. This shows that Edupark not only functions as a

space for physical activities, but also provides direct experience for students to learn about nature and environmental issues, such as waste management, biodiversity, and the importance of nature conservation. However, there is still potential to strengthen this impact through improving teaching materials and more structured activities related to environmental literacy. Finally, 55% of teachers agreed that students were more involved in environmental issues thanks to the teaching and experiences provided at Edupark.

Based on the research results, the main challenges in managing Edupark include budget constraints, minimal teacher training, and lack of coordination between the school and Edupark management. This shows that strategic managerial policies are needed to optimize the use of Edupark as a learning medium that supports students' physical activities and environmental literacy. Utilizing the environment as an effective learning medium can improve students' learning activities (Rachman, 2022). Physical activity in sports training can foster cooperation while improving children's fitness (C. Wibowo et al., 2024). Meanwhile, Marlina & Jupriyanto, (2025) highlights the optimization of project-based learning models as a strategy to improve students' scientific literacy, which is in line with the principles of contextual learning through Edupark.

Environmental literacy in this study is in line with Suciati et al., (2025) discusses the importance of integrating green building and green accounting in education, which can be an inspiration for developing Edupark content. Environmental education 4.0 for elementary school children can foster environmental awareness from an early age (Ningrum et al., 2025). Development of an environmental project-based learning model as an effective approach to improving students' ecological literacy, which can be adapted for lower levels through Edupark (Faediyah et al., 2024).

Educational policy research from a methodological aspect according to Febriliati et al., (2024) Lestari et al., (2023) emphasized that the discovery learning model and the development of thematic LKPD strongly support active and literate learning. The lack of teacher training in optimizing Edupark is in line with the findings Herniyastuti et al., (2025) highlights the importance of structured self-training to improve teachers' capacity in reading literacy.

Meanwhile, the research results Wardiyanto, Hadi, et al., (2021) Wardiyanto, Harun, et al., (2021) In two studies, it was shown that physical activities based on local wisdom and those carried out in the morning were proven to be effective in improving health quality and immunity, this shows that Edupark has the potential to be a multifunctional space for learning and physical activity. Physical activity and clean living habits need to continue to be instilled, especially in post-pandemic conditions (susanto, 2021). Structured physical activity contributes directly to the physical fitness of secondary school students, which is the basis for a program that can be adapted through Edupark (ID Lestari et al., 2022).

The importance of data and technology-based management is also reflected in studies Arindi et al., (2023); KAT (Wibowo & Murtopo, 2025), which underlines the optimization of digital design and knowledge sharing as an effort to improve accessibility and sustainability of learning, which can also be applied in the management and documentation of Edupark activities digitally. Thus, the integration of these findings strengthens that to overcome the challenges of Edupark management, a strategic school management policy is needed that includes financing, teacher training, project-based curriculum development, and the use of technology to support holistic contextual learning.

CONCLUSION

This study shows that clear and structured managerial policies play an important role in the successful use of Edupark to support students' physical activity and environmental literacy. Therefore,

schools need to strengthen Edupark management policies, provide training to teachers, and improve coordination between schools and facility managers. The contribution of the study includes the management of outdoor learning spaces integrated with Edupark in implementing educational policies in schools. In practice, these findings suggest that schools strengthen Edupark management policies, provide more structured training to teachers, and improve coordination between schools and facility managers so that the use of Edupark can be maximized. Suggestions for further research include the development of more integrated policies between Edupark and the educational curriculum, as well as the addition of facilities and resources to support learning activities.

REFERENCES

- Alasan, A. (2024). *Metode Penelitian Kualitatif*. Center for Open Science. <https://doi.org/10.31237/osf.io/smrh>
- Anwar, S., Damanik, B. N., & Putra, I. (2025). Optimalisasi Literasi Digital Di Smk N 1 Pancur Batu: Edukasi Internet Sehat Untuk Membangun Lingkungan Digital Yang Aman Dan Produktif. In *Jurnal Pengabdian Masyarakat Sapangambe Manoktok Hitei* (Vol. 5, Issue 1, pp. 91–95). Universitas Simalungun. <https://doi.org/10.36985/1x95yn98>
- Arindi, M., Rachmawati, T. S., & Perdana, F. (2023). Aktivitas Berbagi Pengetahuan Dalam Meningkatkan Literasi Fisik Anak Usia Dini Studi Kasus di motoricschool Halo Kids Indonesia. In *Gelanggang Olahraga: Jurnal Pendidikan Jasmani dan Olahraga (JPJO)* (Vol. 7, Issue 1, pp. 62–74). IPM2KPE. <https://doi.org/10.31539/jpjo.v7i1.7368>
- Darmadi, D., Primiani, C. N., Sudarmiani, S., Pujiati, P., & Sanusi, S. (2022). Program Pojok Baca Untuk Meningkatkan Kemampuan Literasi dan Numerasi Siswa Sekolah Dasar di Desa. In *Literasi: Jurnal Pengabdian Masyarakat dan Inovasi* (Vol. 2, Issue 2, pp. 605–614). Politeknik Negeri Ketapang. <https://doi.org/10.58466/literasi.v2i2.364>
- Faadiyah, F., Anjelli, S., & Fasihaturrohman, S. (2024). Pengembangan Model Pembelajaran Berbasis Proyek Lingkungan Untuk Meningkatkan Literasi Ekologi Mahasiswa. In *SEMAR: Jurnal Sosial dan Pengabdian Masyarakat* (Vol. 2, Issue 3, pp. 1–7). Kalimasada Group. <https://doi.org/10.59966/semar.v2i3.881>
- Febriliati, F., Marlina, M., & Ayuningtyas, V. (2024). Penerapan Model Collaborative Learning Untuk Meningkatkan Literasi Matematis Dan Aktivitas Belajar Siswa Di Kelas Vii Smp. In *Jurnal Inovasi dan Teknologi Pendidikan* (Vol. 3, Issue 1, pp. 45–56). Universitas Bina Bangsa. <https://doi.org/10.46306/jurinotep.v3i1.79>
- Hasibuan, A. A. U. (2024). Pengembangan MONOLI (Monopoli Lingkungan) Berbantu Teknologi QR Code Untuk Meningkatkan Kemampuan Literasi Sains Siswa Pada Materi Pencemaran Lingkungan. In *Jurnal Biologi dan Pembelajarannya (JB&P)* (Vol. 11, Issue 2, pp. 230–237). Universitas Nusantara PGRI Kediri. <https://doi.org/10.29407/jbp.v11i2.23553>
- Hermaliani, E. H., Sadikin, R., Haris, M., Anasanti, M. D., Bismi, W., & Napiah, M. (2022). Pelatihan Optimalisasi Website Untuk Meningkatkan Kinerja Profesional Melalui Perencanaan (Planning) Website. In *Literasi: Jurnal Pengabdian Masyarakat dan Inovasi* (Vol. 2, Issue 2, pp. 1359–1364). Politeknik Negeri Ketapang. <https://doi.org/10.58466/literasi.v2i2.580>
- Herniyastuti, H., Yusdarwati, A., & Kadir, A. (2025). Optimalisasi Pelatihan Mandiri Terbimbing untuk Meningkatkan Penilaian Awal Literasi Membaca Guru Kelas di SDN 276 Latappere. In *DEIKTIS: Jurnal Pendidikan Bahasa dan Sastra* (Vol. 5, Issue 1, pp. 1–6). Dosen Muslim Indonesia. <https://doi.org/10.53769/deiktis.v5i1.1280>
- Hidayati, L. (2022). Penggunaan Qr Code Dalam Pembelajaran Discovery Learning Untuk Meningkatkan Kemampuan Literasi Digital Berwawasan Lingkungan. In *Jurnal Lingkar Mutu Pendidikan* (Vol. 19, Issue 2, pp. 73–77). Lembaga Penjaminan Mutu Pendidikan DKI Jakarta. <https://doi.org/10.54124/jlmp.v19i2.80>

- Huntsman, D. D. (2025). Home Environment as a Therapeutic Target for Prevention and Treatment of Chronic Diseases: Delivering Restorative Living Spaces, Patient Education and Self-Care by Bridging Biophilic Design, E-Commerce and Digital Health Technologies. *International Journal of Environmental Research and Public Health*, 22(2). <https://doi.org/10.3390/ijerph22020225>
- Idrus, S. W. Al, & Rahmawati, R. (2024). Efektivitas E-Modul Kimia Lingkungan Berbasis Etnosains Terintegrasi Stem Untuk Meningkatkan Keterampilan Berpikir Kritis Dan Literasi Lingkungan. In *Jurnal Pendidikan, Sains, Geologi, dan Geofisika (GeoScienceEd Journal)* (Vol. 5, Issue 4, pp. 1039–1044). Universitas Mataram. <https://doi.org/10.29303/goescienceed.v5i4.637>
- Indradjati, P. N., & Rahayu, A. (2021). Pengaruh Lingkungan Terbangun terhadap Aktivitas Fisik Untuk Kesehatan Lanjut Usia. In *Jurnal Kesehatan Lingkungan Indonesia* (Vol. 20, Issue 2, pp. 112–119). Institute of Research and Community Services Diponegoro University (LPPM UNDIP). <https://doi.org/10.14710/jkli.20.2.112-119>
- Joisten, C. (2025). Obesity in childhood and adolescence—From individual prevention up to a health in all policies approach. *Monatsschrift Fur Kinderheilkunde*. <https://doi.org/10.1007/s00112-025-02145-5>
- Lestari, G. A., Nur, S. H., & Sulistyono, S. (2023). Desain lembar kerja peserta didik (LKPD) materi pencemaran lingkungan berbasis penelitian pengolahan sampah menggunakan alat hermatika illucienses untuk meningkatkan kesadaran dan literasi lingkungan. In *Gema Wiralodra* (Vol. 14, Issue 1). Universitas Wiralodra. <https://doi.org/10.31943/gw.v14i1.393>
- Lestari, I. D., Rustiadi, T., & Wahyudi, A. (2022). Pengembangan Model Aktivitas Fisik untuk Meningkatkan Kebugaran Jasmani pada Siswa Sekolah Menengah Atas. In *Gelanggang Olahraga: Jurnal Pendidikan Jasmani dan Olahraga (JPJO)* (Vol. 5, Issue 2, pp. 225–235). IPM2KPE. <https://doi.org/10.31539/jpjo.v5i2.3740>
- Li, X. (2025). Practice of evidence-based education ecological environment to promote the development of nursing students. *Chinese Journal of Nursing Education*, 22(1), 49–54. <https://doi.org/10.3761/j.issn.1672-9234.2025.01.008>
- Majdi, M. (2023). Inovasi Pembelajaran Abad 21: Peluang dan Tantangan Implementasi Kurikulum Merdeka Belajar di Kampus Merdeka Belajar pada STIT Buntet Pesantren Cirebon. In *JIECO: Journal of Islamic Education Counseling* (Vol. 3, Issue 1, pp. 12–25). STIT Buntet Pesantren. <https://doi.org/10.54213/jieco.v3i1.254>
- Major, M. G. (2024). Intervention Mapping for Refining a Sport-Based Public Health Intervention in Rural Schools. *International Journal of Environmental Research and Public Health*, 21(12). <https://doi.org/10.3390/ijerph21121557>
- Marlina, & Jupriyanto. (2025). Optimalisasi Model Pembelajaran Berbasis Proyek Untuk Meningkatkan Literasi Sains Siswa. In *Jurnal PGSD UNIGA* (Vol. 4, Issue 1, pp. 1–7). Universitas Garut. <https://doi.org/10.52434/jpgsd.v4i1.42144>
- Muhammad, I. B. N. (2022). Penerapan Inovasi Budaya Game Catung Untuk Meningkatkan Literasi Dan Numerasi Di Sd Negeri 1 Muruh. In *Jurnal Cerdik: Jurnal Pendidikan dan Pengajaran* (Vol. 2, Issue 1, pp. 13–23). Brawijaya University. <https://doi.org/10.21776/ub.jcerdik.2022.002.01.02>
- Ningrum, I. H., Hiryanto, & Aryani, N. D. (2025). Implementasi Pendidikan Lingkungan Melalui Permainan Sampah Go Untuk Meningkatkan Literasi Lingkungan Dan Numerasi Pada Anak-Anak Wonderhome Library. In *Jurnal Ilmiah Pendidikan Citra Bakti* (Vol. 12, Issue 1, pp. 41–55). Pusat Penelitian dan Pengabdian Kepada Masyarakat STKIP Citra Bakti. <https://doi.org/10.38048/jipcb.v12i1.4697>
- Nurrohmah, M. (2021). Program Meningkatkan Aktivitas Fisik Sebagai Wujud Gerakan Masyarakat Hidup Sehat (GERMAS) untuk Mencegah Penyakit PTM. Center for Open Science. <https://doi.org/10.31219/osf.io/jmz75>

- Pratiwi, Y. I., Handayani, I., & Suharyo, S. (2024). Pelatihan Karya Ilmiah Dengan Metode Data Kualitatif Dan Kuantitatif Di SMA Sultan Agung 1 Semarang. In *TEMATIK* (Vol. 4, Issue 2, p. 47). Universitas Semarang. <https://doi.org/10.26623/tmt.v4i2.10064>
- Rachman, T. N. R. (2022). Pemanfaatan Lingkungan Sebagai Media Pembelajaran Untuk Meningkatkan Aktivitas Belajar Siswa. In *Al-Fikru : Jurnal Pendidikan Dan Sains* (Vol. 3, Issue 1, pp. 29–43). Institut Ilmu Keislaman Zainul Hasan Genggong. <https://doi.org/10.55210/al-fikru.v3i1.574>
- Ramadhana, S. D., Norra, B. I., & Rasyida, N. (2022). Keefektifan Perangkat Pembelajaran Dengan Model Pjbl-Stream Pada Materi Lingkungan Untuk Meningkatkan Literasi Lingkungan. In *Jurnal Pendidikan (Teori dan Praktik)* (Vol. 6, Issue 2, pp. 75–81). Universitas Negeri Surabaya. <https://doi.org/10.26740/jp.v6n1.p75-81>
- Riyana, M. J., Syahmani, S., & Yulinda, R. (2022). Validitas dan Kepratisan Media Articulate Storyline Materi Teknologi Ramah Lingkungan Berkonteks Lahan Basah untuk Meningkatkan Literasi Sains. In *Journal of Mathematics Science and Computer Education* (Vol. 2, Issue 1, p. 44). Center for Journal Management and Publication, Lambung Mangkurat University. <https://doi.org/10.20527/jmscedu.v2i1.5283>
- Suciati, H., Risnawaty, Lestari, R. A. W. D., & Arfanti, Y. (2025). Mengembangkan Literasi Dan Optimalisasi Green Building Serta Green Accounting Untuk Mendukung Keberlanjutan Lingkungan Berbasis Sekolah. In *Jurnal Pendekar Nusantara* (Vol. 2, Issue 2). Universitas Batam. <https://doi.org/10.37776/pend.v2i2.1647>
- susanto, susanto. (2021). *COVID-19: Meningkatkan Kesadaran Hidup Bersih dan Aktivitas Fisik dalam Mendukung Kuliah Daring*. Center for Open Science. <https://doi.org/10.31219/osf.io/a9swj>
- Susilo, N. H. (2021). Penerapan Model Discovery Learning Untuk Meningkatkan Aktivitas Belajar Siswa Sekolah Dasar. In *Literasi (Jurnal Pendidikan Dasar)* (Vol. 1, Issue 1). Universitas PGRI Semarang. <https://doi.org/10.26877/literasi.v1i1.8935>
- Syamsiah, S., Arsal, A. F., & Arifin, A. N. (2021). Analisis Hubungan antara Respon dan Hasil Belajar Mahasiswa pada Pembelajaran Outdoor Learning untuk Meningkatkan Literasi Lingkungan. In *Sainsmat : Jurnal Ilmiah Ilmu Pengetahuan Alam* (Vol. 10, Issue 2, p. 206). Universitas Negeri Makassar. <https://doi.org/10.35580/sainsmat102263692021>
- Wardiyanto, Y., Hadi, R., & Qibtiyah, A. M. (2021). Morning Physical Activity Program for Increasing Physical Fitness Older Adults during Covid-19 Pandemic. In *Plyometric : Jurnal Sains dan Pendidikan Keolahragaan* (Vol. 1, Issue 1, pp. 1–10). LPPM Universitas Muhammadiyah Cirebon. <https://doi.org/10.32534/ply.v1i1.2935>
- Wardiyanto, Y., Harun, H., & Nurfauliyah, H. (2021). Program Aktivitas Fisik Di Pagi Hari Untuk Meningkatkan Kualitas Tidur Lansia Di Masa Pandemi Covid-19. In *Plyometric : Jurnal Sains dan Pendidikan Keolahragaan* (Vol. 1, Issue 2, pp. 22–33). LPPM Universitas Muhammadiyah Cirebon. <https://doi.org/10.32534/ply.v1i2.3072>
- Wibowo, C., Nopiyo, Y. E., Raibowo, S., Insanistyo, B., Kardi, I. S., Ibrahim, Rasyono, Defliyanto, & Cs, A. (2024). Assessing the Influence of the Flipped Classroom on Physical Education Students' Engagement in Basketball Learning Activities. *Physical Education Theory and Methodology*, 24(4 SE-Original Scientific Articles), 511–519. <https://doi.org/10.17309/tmf.v2024.4.01>
- Wibowo, K. A. T., & Murtopo, A. S. (2025). Optimalisasi Desain UI/UX untuk Meningkatkan Aksesibilitas Teknologi Digital bagi Lansia dan Penyandang Disabilitas. In *Jurnal Riset Sistem dan Teknologi Informasi* (Vol. 3, Issue 1, pp. 51–66). Universitas Aisyiyah Surakarta. <https://doi.org/10.30787/restia.v3i1.1887>
- Wicaksono, L., & Utama, D. D. P. (2022). Pemanfaatan media pembelajaran berbasis information and communication technology selama pandemi covid-19 oleh guru pendidikan jasmani, olahraga dan kesehatan. In *Multilateral : Jurnal Pendidikan Jasmani dan Olahraga* (Vol. 21,

- Issue 1, p. 16). Center for Journal Management and Publication, Lambung Mangkurat University. <https://doi.org/10.20527/multilateral.v2i1i1.12226>
- Wu, S.-Y., & Jensen, J. L. (2022). Association Between Motor Competence and Percentage of Body Fat in Late Childhood: Comparing Proficiency in Fundamental Motor Skills and Advanced Movement Skills. *Childhood Obesity*, 19(7), 452–460. <https://doi.org/10.1089/chi.2022.0040>
- Yuliantoro, S. (2022). Pemanfaatan Media Flashcard Berbarcode Untuk Meningkatkan Aktivitas Literasi IPA Siswa SDN Tileng Dagangan. In *Jurnal Literasi Digital* (Vol. 2, Issue 2, pp. 96–101). Pustaka Digital Indonesia. <https://doi.org/10.54065/jld.2.2.2022.132>
- Zahara, Z., Waty, E. R. K., & Nopri. (2023). Penerapan Model Project Based Learning Untuk Meningkatkan Aktivitas Dan Hasil Belajar Matematika Siswa Kelas Iv Sd Negeri 235 Palembang. In *Jurnal Perseda : Jurnal Pendidikan Guru Sekolah Dasar* (Vol. 6, Issue 3, pp. 204–213). Universitas Muhammadiyah Sukabumi. <https://doi.org/10.37150/perseda.v6i3.2138>