



The Implementation of Green Adventure Learning to Enhance Gross Motor Skills in Children Aged 5–6 Years

Khusnul Khatimah^{1*}, Sukrin², Hermansyah³

^{1,2,3}Universitas Muhammadiyah Bima, Indonesia

*Corresponding Author: Khusnul Khatimah,

Email: nulhusnul344@gmail.com

Received: February 19, 2025 | Revised: March 06, 2026 | Accepted: March 18, 2026 | Online: April 01, 2026

ABSTRACT

This study aims to examine the implementation of Green Adventure Learning in supporting the development of gross motor skills in early childhood. The research employed a descriptive qualitative approach conducted at Qonita Preschool, involving Group B children as the research participants. Data were collected through classroom observations, documentation, and field notes to obtain a detailed description of learning activities and children's motor skill engagement during the program. Data analysis was carried out using the stages of data reduction, data display, and conclusion drawing. To ensure the trustworthiness of the findings, the study applied source triangulation, prolonged observation, and careful documentation of learning activities. The findings indicate that the implementation of Green Adventure Learning involved outdoor exploration, movement-based games, and direct interaction with natural environments. These activities provided opportunities for children to practice balance, coordination of movement, agility, and muscle use during learning sessions. Observations during the learning process showed that children participated actively in physical activities and demonstrated greater involvement in movement tasks provided by the teacher. The learning environment also reflected contextual and child-centered practices, where children were encouraged to explore and engage physically with their surroundings. Overall, the implementation of nature-based learning activities through Green Adventure Learning offers meaningful experiences that can support gross motor skill development in early childhood education settings.

Keywords: *Nature-Based Learning, Outdoor Learning, Early Childhood Education*

Journal Homepage <https://ejournaluinmybsk.ecampus.id/index.php/ijecer/index>

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

<https://creativecommons.org/licenses/by-nc-sa/4.0/>

How to cite: Khatimah, K., Sukrin, S., & Hermansyah, H. (2026). The Implementation of Green Adventure Learning to Enhance Gross Motor Skills in Children Aged 5–6 Years. *Indonesian Journal of Early Childhood Educational Research (IJECER)*, 5(1), 36-46. <https://doi.org/10.31958/ijecer.v3i1.16662>

Published by: Universitas Islam Negeri Mahmud Yunus Batusangkar, Indonesia

INTRODUCTION

Early childhood education is an important foundation in building the quality of individual development at the next stage. Early childhood is often referred to as the golden age because during this period the growth and development of children takes place very rapidly, covering cognitive, language, social-emotional, moral, and physical motor aspects (Fikriyati et al., 2023). Physical motor development, especially gross motor development, has a significant role in supporting children's readiness to carry out various learning activities and daily life (Ahmad et al., 2024). Gross motor skills are related to the ability to use large muscles, such as running, jumping, climbing, balancing the body, and coordinating movements in a directed manner. These abilities not only support physical health, but also contribute to the formation of children's confidence, independence, and social interaction skills (Murtado et al., 2023).

In the international context, studies on early childhood physical development also emphasize that active movement experiences and environmental interaction play an important role in strengthening children's motor competence and overall development. Phenomena in the field show that gross motor development in early childhood is not fully optimal. Some children experience limitations in movement coordination, body balance, and agility in physical activity. This condition is influenced by various factors, including lack of movement stimulation, limited play space, dominance of gadget use, and a learning pattern that emphasizes sitting activities and the use of worksheets more than exploratory activities (Suryadi et al., 2023).

Less varied learning and lack of direct experience cause children to have less opportunities to develop motor skills naturally through movement and play. This situation requires educators to design innovative, active, and contextual learning so that it is able to stimulate the child's gross motor development as a whole (Udjir & Watini, 2022). Similar concerns are also highlighted in international research, which reports that sedentary learning environments can reduce children's opportunities to develop physical and motor competencies. This condition is also found in children at Qonita Preschool. Based on initial observations, some children still show limitations in maintaining body balance, movement coordination, and agility when doing physical activities (Firman & Anhusadar, 2022). Some children seem less confident when participating in movement activities, get tired easily, and are not able to control movement optimally. Learning that takes place previously tends to be carried out in the classroom with limited physical activity, so that children's opportunities to develop gross motor skills have not been maximized. This condition is the basis for the need to implement a learning approach that is able to provide a broader and more meaningful movement experience (Samodra et al., 2023).

Hands-on experiential learning in the outdoors is one of the relevant approaches to answer these needs. The Green Adventure learning concept presents learning activities that utilize the natural environment as the main learning resource (Cholifah & Rinata, 2022). This approach integrates adventure activities, exploration, physical play, and direct interaction with nature in a fun and meaningful atmosphere. Through activities such as walking on nature trails, jumping over natural obstacles, climbing simple structures, running in open spaces, and maintaining balance in various terrains, children gain rich and varied motor experiences. These activities stimulate body coordination, muscle strength, agility, and the ability to control movements more effectively (Alfian et al., 2022). In line with global trends in outdoor education, nature-based learning environments are increasingly recognized as supportive settings for children's physical activity and movement exploration.

Green Adventure learning not only focuses on the physical aspect, but also supports the holistic development of children. Interaction with the natural environment encourages curiosity, courage to try, problem-solving skills, and concern for the environment (Liansari & Liansari, 2023). Children learn through real experiences that involve all the senses, so that the learning process becomes more meaningful. A fun, stress-free learning atmosphere helps children move spontaneously, actively, and confidently. This condition contributes to improving the quality of gross motor development while strengthening the social-emotional aspects of children, such as cooperation, discipline, and responsibility (Wulandary, 2022). Theoretically, children's motor development is influenced by training opportunities, physical maturity, motivation, and a supportive environment. Children who are often involved in structured or free physical activities tend to have better motor skills than children who are less mobile (Maulidia et al., 2023).

A learning environment rich in movement stimulation allows children to develop balance, coordination, and strength skills gradually. Learning that combines elements of play,

exploration, and physical activity has been shown to be effective in improving early childhood gross motor skills. Green Adventure is a form of active learning implementation that provides hands-on experience and broad exploration opportunities for children (Ahmadon et al., 2023). Several previous studies have shown that nature-based learning and physical activity have a positive impact on early childhood motor development. Children who are involved in outdoor activities show improvements in aspects of balance, agility, coordination, and courage in making new movements (Marta et al., 2022). Learning that utilizes the natural environment is also able to increase children's motivation and involvement during the learning process.

However, the application of Green Adventure learning in the context of gross motor improvement still requires more in-depth study, especially related to the effectiveness, implementation process, and changes in children's motor skills after participating in these activities (Abdullah et al., 2023). This indicates that further research is needed to examine how such learning approaches are implemented in real educational settings and how they support children's motor development processes. The need for a learning model that is able to optimally stimulate gross motor development encourages the importance of implementing Green Adventure learning in early childhood education environments, including in Qonita Preschool. This approach provides an alternative to more active, contextual, and child-centered learning strategies. Children have the opportunity to move freely, explore the environment, and learn through fun hands-on experiences. T

This process is expected to be able to improve children's gross motor skills gradually and sustainably (Agus & Wardhani, 2023). Based on these considerations, this study aims to describe the application of Green Adventure learning in improving early childhood gross motor skills in Qonita Preschool. The focus of the study includes the process of implementing activities, the form of activities provided, and improving children's gross motor skills after participating in learning. The novelty of this study lies in examining the implementation of Green Adventure learning as a structured nature-based learning approach in an early childhood education setting and describing how it supports children's gross motor development through contextual outdoor activities. The results of the research are expected to make a theoretical contribution to the development of nature-based learning concepts as well as practical contributions for educators in designing learning that is effective, innovative, and in accordance with the characteristics of early childhood development. The right learning approach is the key to creating a meaningful learning experience and supporting children's physical motor development optimally.

RESEARCH METHODOLOGY

Research Approach and Design

This study employed a qualitative approach with a descriptive research design to provide an in-depth description of the implementation of Green Adventure learning in improving early childhood gross motor skills. The study focused on understanding learning activities, children's participation during the learning process, and the development of gross motor abilities within the learning environment.

Research Setting and Participants

The research was conducted at Qonita Preschool, with Group B children serving as the research participants. The study focused on children's gross motor development, particularly in aspects such as balance, movement coordination, agility, and muscle strength that emerged during the implementation of Green Adventure learning activities.

Data Collection Techniques

Data were collected through observation, documentation, and field notes. Observations were carried out during the implementation of Green Adventure learning activities to examine children's participation, movement patterns, and interaction with the learning environment. These observations were conducted repeatedly across several learning sessions to obtain consistent data. Documentation was used to support the observational findings in the form of photographs and records of the learning process. Field notes were used to document learning dynamics, children's responses, and important events that occurred during the activities.

Data Analysis

The data analysis process followed qualitative analysis procedures consisting of data reduction, data display, and conclusion drawing. In the initial stage, all collected data from observations, documentation, and field notes were organized and selected according to the research focus. The data were then coded to identify patterns related to children's motor activities and learning processes. The coding process involved grouping similar behaviors into several categories, such as balance activities, coordination movements, agility-related tasks, and muscle-strengthening activities. Subsequently, the categorized data were analyzed using thematic analysis to identify emerging themes related to the implementation of Green Adventure learning and children's gross motor development. These themes were interpreted to explain how the learning activities contributed to children's motor skill engagement during the program.

Trustworthiness of Data

To ensure the trustworthiness of the findings, several validation strategies were applied, including prolonged observation, triangulation of data sources (observation, documentation, and field notes), and systematic recording throughout the research process. These procedures were intended to ensure the credibility and consistency of the research findings and to provide a comprehensive understanding of the implementation of Green Adventure learning in the early childhood education context.

RESULTS AND DISCUSSION

Results

The results of the study show that the application of Green Adventure learning provides positive changes to early childhood gross motor development. The implementation of activities that utilize the natural environment as a learning resource is able to encourage children to move more actively, courageously, and directly engage in various physical activities. The learning process that is carried out in stages and structured shows that there is an improvement in children's abilities in the aspects of balance, movement coordination, agility, and muscle strength. Activities designed in the form of adventure games make children follow learning enthusiastically and enthusiastically.

The implementation of Green Adventure learning at Qonita Preschool takes place through several physical activities designed according to the characteristics of early childhood development. Children participate in simple obstacle courses, jumping over lines and natural objects, running in open spaces, climbing on game media, and maintaining balance on certain tracks. In the early stages of activities, some children still show doubts and caution when making movements, especially in activities that require balance and body coordination. Some children seem unable to control movement stably, easily lose balance, and need teacher guidance in completing activities.



Figure 1. Gross motor stimulation activities through movement and balance activities in group B children at Qonita Preschool in the application of Green Adventure learning

Gross motor stimulation activities through movement and balance activities in Group B children at Qonita Preschool in the application of Green Adventure learning is a pedagogical effort designed to optimize early childhood physical development through natural activity-based learning experiences. This stimulation is carried out through various activities such as walking on a natural path, jumping, running, maintaining body balance, and exploration of the surrounding environment that requires coordination of movement and body control. The Green Adventure approach emphasizes active, contextual, and fun learning so that children are directly involved in the learning process. Through these activities, children's balance skills, muscle strength, agility, and motor coordination develop gradually and integrated. In addition, this activity also supports the formation of children's confidence, independence, and courage in carrying out physical movements safely and in a directed manner. Thus, gross motor stimulation through movement and balance activities in Green Adventure learning plays an important role in supporting children's physical-motor development optimally and holistically.

As learning activities take place, children begin to show significant changes. Children look more confident, dare to try, and are able to make movements with better coordination. Walking on an obstacle course shows an increase in the ability to maintain body balance. Children who previously often fell or went off track began to be able to walk stably and focused. In jumping activities, children show increased leg muscle strength and the ability to control movements when landing. Jumping movements that were initially less directed became more balanced and coordinated. Development is also seen in the activity of running in open spaces. Children are able to run more agilely, fast, and not get tired easily. The coordination between hand and foot movements appears to be more synchronized than in the initial condition. In addition, in simple game media climbing activities, children show increased strength in hand and leg muscles and courage in completing challenges.

In addition to the improvement in gross motor skills, the findings also indicate notable changes in children's engagement and behavior during the learning process. Children demonstrated higher levels of participation, enthusiasm, and interest when involved in Green Adventure learning activities. Outdoor learning environments provided varied and enjoyable experiences that encouraged active movement and interaction. Observational data show that children interacted positively with peers, supported each other, and collaborated while

completing movement-based tasks. Increased confidence was observed through children's willingness to attempt different physical activities and explore the learning environment with less hesitation. Children also showed greater independence in completing assigned movement tasks. These findings suggest that nature-based learning activities not only stimulate physical development but also promote active participation and positive social interaction during the learning process. To support these findings, several observational results are presented in visual form. Each figure illustrates children's involvement in specific Green Adventure activities related to balance, coordination, agility, and movement exploration. All figures include clear captions describing the activity context, the aspect of motor development observed, and the data source derived from field observations conducted during the study.

The results of observations show that Green Adventure learning provides more varied movement stimulation than previous learning that tends to be carried out in the classroom. The natural environment provides ample room for movement, so that children have the opportunity to develop motor skills naturally through play and exploration activities. Direct and contextual activities help children understand body movements, control balance, and gradually improve coordination. Children learn through real experiences that involve the whole body, so that gross motor development takes place optimally.



Figure 2. Exploration of the natural environment through water play as part of Green Adventure learning to stimulate movement coordination, balance, and agility in early childhood.

From the gamabar above, it shows that exploration activities of the natural environment through water games as part of Green Adventure learning are learning strategies that aim to stimulate the gross motor development of early childhood in an integrated manner. Water game activities provide opportunities for children to perform various movements such as walking on wet surfaces, moving water, maintaining body balance, and adjusting hand and foot coordination coordination. Through this hands-on experience, children's movement coordination, balance, and agility skills develop naturally and gradually. In addition to supporting physical development, this activity also encourages active involvement, curiosity, and courage for children to interact with a contextual and fun learning environment. Thus, the exploration of water games in Green Adventure learning contributes positively to the optimization of early childhood motor development holistically.

The improvement of children's gross motor skills can be seen from changes in the quality of movements that are getting better during the research process. Children who were initially in the category of starting to develop increased to develop as expected. Some children even show very good development, characterized by the ability to move stably, coordinated,

and confidently. This change shows that Green Adventure learning is able to make a positive contribution to early childhood motor physical development.

Temuan penelitian ini menunjukkan bahwa kegiatan pembelajaran yang memadukan unsur bermain, eksplorasi, dan aktivitas fisik di lingkungan alam mampu menciptakan pengalaman belajar yang bermakna. Anak tidak hanya memperoleh stimulasi gerak yang optimal, tetapi juga mengembangkan rasa percaya diri, keberanian, serta kemampuan berinteraksi sosial. Pembelajaran yang dirancang secara menyenangkan mendorong anak untuk bergerak aktif tanpa tekanan, sehingga perkembangan motorik kasar berlangsung secara alami dan berkelanjutan. Hasil penelitian ini memberikan gambaran bahwa penerapan pembelajaran Green Adventure efektif dalam meningkatkan kemampuan motorik kasar anak usia dini serta mendukung proses pembelajaran yang lebih aktif, inovatif, dan berpusat pada anak.

Discussion

The results of this study indicate that the implementation of Green Adventure learning contributes to the gradual development of children's gross motor skills, particularly in aspects of balance, movement coordination, agility, and muscle strength. These findings are consistent with research showing that physical activities integrated with exploration of the natural environment provide meaningful opportunities for children to practice large muscle movements and adjust their body coordination in real situations (Ashudi et al., 2022). Direct interaction with environmental challenges allows children to engage in movement more actively, which supports motor development through repeated practice and experiential learning. Previous studies also highlight that physical activity during learning plays an important role in strengthening early childhood motor development (Ruchliyadi & Adawiah, 2023).

The findings further reveal that outdoor learning environments provide richer movement stimulation compared to classroom-based activities. The natural setting offers varied terrain, wider movement space, and diverse sensory experiences that encourage children to explore different forms of movement (Haryandi et al., 2024). In this study, activities such as obstacle walking, jumping, running, climbing, and balancing created opportunities for children to train large muscles more intensively. Interestingly, children who initially showed lower levels of participation gradually demonstrated improved control of body movements and better coordination during activities.

This finding supports previous research suggesting that varied movement experiences significantly influence children's motor competence development (Hapidin et al., 2022). From a theoretical perspective, the improvement observed in this study aligns with motor development theory, which emphasizes the importance of practice opportunities, environmental stimulation, and intrinsic motivation in developing children's movement abilities (Satrya & Muljono, 2022). Adventure-based learning activities appear to encourage children to engage in movement voluntarily and without pressure. This condition is important because motivation and emotional comfort can influence children's willingness to participate in physical activities. Similar findings have been reported by Shafie et al. (2022), who state that enjoyable movement experiences can strengthen children's confidence and improve the quality of motor performance. In addition to physical development, the results of this study also indicate changes in children's social-emotional engagement during learning activities. Children appeared more confident, willing to try new movements, and more independent in completing activity tasks (Sutinah et al., 2024).

Interaction among peers during outdoor activities encouraged cooperation and communication, which are important elements in early childhood learning environments.

However, it should be noted that these improvements may also be influenced by the novelty of outdoor learning experiences and the increased opportunities for peer interaction, rather than solely by the Green Adventure model itself. Previous research also reports that collaborative physical activities can strengthen children's engagement and participation during learning (Dida et al., 2022). Nature-based learning environments also provide multisensory experiences that support children's movement adaptation. In this study, children were required to adjust their movements according to uneven surfaces, open spaces, and different activity settings. Such experiences are important in helping children develop body control and movement stability (Palupi et al., 2023).

Compared to classroom-centered activities that often emphasize sedentary learning, outdoor exploration provides more dynamic movement challenges that may better stimulate gross motor development (Sari et al., 2023). This suggests that the learning environment plays a critical role in shaping children's physical activity patterns. Another important finding of this study is related to the role of child-centered learning approaches in supporting motor development. Children were given the opportunity to explore movements according to their abilities and pace, while teachers functioned as facilitators who guided and ensured safety during activities (Ni'mah & Suwardi, 2023). This approach created an active and participatory learning atmosphere, where children were not only following instructions but were directly involved in the learning process. Similar findings have been reported by Priyanto and Desmafianti (2023), who emphasize that participatory learning environments can increase children's engagement and motivation in physical activities. Although the findings demonstrate positive indications of motor skill improvement, this study also recognizes several limitations.

The results are based on observations within a specific learning context and involve a limited number of participants in one early childhood education setting. Therefore, the findings primarily describe the learning process and observed changes rather than measuring motor development outcomes quantitatively. Nevertheless, the study provides important insights into how nature-based learning approaches, such as Green Adventure learning, can be implemented in early childhood education to support movement development. Overall, the results suggest that Green Adventure learning can provide a supportive environment for children's gross motor development through active exploration, varied movement experiences, and contextual learning activities. These findings strengthen previous studies indicating that learning environments rich in physical activity play an important role in supporting children's motor competence (Islanmmudin & Sari, 2023; Husamah et al., 2023). In addition, the use of the natural environment as a learning resource offers a practical alternative for educators to design more active and meaningful learning experiences in early childhood education settings (Nastiti et al., 2023).

CONCLUSION

The findings of this study indicate that the implementation of Green Adventure learning contributes to the development of children's gross motor skills, particularly in balance, movement coordination, agility, and muscle strength. Outdoor exploration activities provide opportunities for children to engage in varied physical movements and interact directly with the natural environment during the learning process. The results also show increased participation, confidence, and engagement among children during learning activities conducted in outdoor settings. These findings suggest that nature-based learning can function as an alternative approach to support movement stimulation and active participation in early childhood education settings. The use of the natural environment as a learning resource allows children to experience physical activities in a more contextual and interactive way.

Future research is recommended to examine the effectiveness of Green Adventure learning using mixed-method or experimental designs, involve larger participant groups, and compare different early childhood education settings. Further studies may also explore long-term impacts on children's physical development and investigate how this learning model can be integrated systematically into early childhood curricula.

ACKNOWLEDGEMENT

The authors express their sincere gratitude to the management and teachers of Qonita Preschool for their cooperation and support during the implementation of this study. Appreciation is also extended to the children and parents who participated in the learning activities and contributed to the research process. The authors also thank colleagues and institutions for their valuable support and encouragement. This research received no specific funding from any public, commercial, or non-profit funding agency, and the authors declare no conflict of interest related to this study.

REFERENCES

- Abdullah, S. A. Y., Siren, N., & Mansor, N. H. (2023). Ocean awareness campaign for environmental well-being in the *Upin and Ipin* animated series season 11: Explore the ocean. *Jurnal Komunikasi: Malaysian Journal of Communication*, 39(3), 274–291. <https://doi.org/10.17576/JKMJC-2023-3903-15>
- Agus, K. R., & Wardhani, K. D. K. (2023). Implementation of gamification in learning media to improve student activity and learning outcomes. *International Journal of Multidisciplinary Research and Growth Evaluation*, 4(2), 232–237. <https://doi.org/10.25299/itjrd.2023.10068>
- Ahmadon, F., Ghazalli, H. I. M., & Sharip, A. A. (2023). Game on: Designing and analysing an RPG educational game for compilers algorithm understanding in the metaverse. *International Journal of Academic Research in Progressive Education and Development*, 12(3). <https://doi.org/10.17509/edukids.v22i1.75830>
- Alfian, A. N., Putra, M. Y., Arifin, R. W., Barokah, A., Safei, A., & Julian, N. (2022). Pemanfaatan media pembelajaran audio visual berbasis aplikasi Canva. *Jurnal Pengabdian Kepada Masyarakat UBJ*, 5(1), 75–84. <https://doi.org/10.31599/mwdwxy87>
- Cholifah, S., & Rinata, E. (2022). *Buku ajar asuhan kebidanan kehamilan*. Umsida Press.
- Dida, S., Lusiana, E., & Dewi, R. (2022). Comic “Sehat ceria di masa pandemi” as a media for disseminating health protocols to elementary school students in Sumedang Regency. *Proceedings of the First International Conference on Literature Innovation in Chinese Language, LIONG 2021*. <https://doi.org/10.4108/cai.19-10-2021.2316743>
- Fikriyati, M., Katoningsih, S., & Hasan, S. (2023). Use of loose part media with cardboard and sand materials in Islamic children's schools. *Nazhruna: Jurnal Pendidikan Islam*, 6(1), 60–71. <https://doi.org/10.31538/nzh.v6i1.2858>
- Firman, W., & Anhusadar, L. (2022). Peran guru dalam menstimulasi kemampuan kognitif anak usia dini. *Kiddo: Jurnal Pendidikan Islam Anak Usia Dini*, 3(2), 28–37. <https://doi.org/10.19105/kiddo.v3i2.6721>
-

- Hapidin, H., Dhieni, N., Pujianti, Y., Suharti, S., & Hartati, S. (2022). Maritim culture literacy acquisition in early childhood (Case study in Kepulauan Seribu, Indonesia). <http://dx.doi.org/10.4108/eai.3-11-2021.2314786>
- Haryandi, S., Arlinda, R., Misbah, M., Harto, M., Muhammad, N., & Sunardi, S. (2024). Bibliometric analysis: Trends of gamification in physics learning from 2019 to 2023. *Momentum: Physics Education Journal*, 8(2), 181–193. <http://dx.doi.org/10.21067/mpej.v8i2.9877>
- Husamah, H., Rahardjanto, A., Hadi, S., Lestari, N., & BK, M. K. U. (2023). Spirituality-based environmental literacy among prospective biology teachers in Indonesia. *JPBI (Jurnal Pendidikan Biologi Indonesia)*, 9(3), 418–432. <https://doi.org/10.22219/jpbi.v9i3.29500>
- Islanmmudin, M. Z., & Sari, E. A. (2023). The content analysis of humor on NET TV and TVRI television stations. *Symposium of Literature Culture and Communication (SYLECTION)*, 3(1), 159. <https://10.31893/multiscience.2025568>
- Liansari, V. (2023). *Perkembangan peserta didik*. Umsida Press.
- Marta, N. A., Mindarto, D., Martini, S., Husmiati, R., Afrizal, A., & Putri, W. (2022). Optimalisasi pembelajaran melalui peningkatan kompetensi guru dalam mendesain model dan media inovatif di PAUD/TK. *Satwika: Jurnal Pengabdian Kepada Masyarakat*, 2(2), 105–114. <https://doi.org/10.21009/satwika.020205>
- Maulidia, L. N., Suparno, S., & Rosyidah, U. J. (2023). A systematic literature review on technology-based learning media in ECE to face society 5.0 era. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, 7(5), 5181–5195. <https://doi.org/10.31004/obsesi.v7i5.4997>
- Murtado, D., Hita, I. P. A. D., Chusumastuti, D., Nuridah, S., Ma'mun, A. H., & Yahya, M. D. (2023). Optimalisasi pemanfaatan media pembelajaran online sebagai upaya meningkatkan hasil belajar siswa di sekolah menengah atas. *Journal on Education*, 6(1), 35–47. <https://doi.org/10.31004/joe.v6i1.2911>
- Nastiti, R. A., Krisnawatie, A., & Yuanditasari, A. (2023). Adaptasi museum konvensional dalam upaya peremajaan pasca pandemi COVID-19. *Waca Cipta Ruang*, 9(1), 1–8. <https://doi.org/10.34010/wcr.v9i1.8441>
- Ni'mah, A., & Suwardi, S. (2023). Implementation of the chemo-entrepreneurship approach in chemistry learning: Systematic review 2016–2023. *Jurnal Penelitian Pendidikan IPA*, 9, 24–36. <https://doi.org/10.29303/jppipa.v9iSpecialIssue.5368>
- Palupi, T. M., Mayuni, I., Agustina, I. W., & Pieter, P. (2023). Pengembangan program “Kampung Inggris” sebagai upaya mendukung pariwisata di Kabupaten Agam. *Abdi: Jurnal Pengabdian dan Pemberdayaan Masyarakat*, 5(2), 178–191.
- Priyanto, R., & Desmafianti, G. (2023). Cultural value of cassava food as a tourism attraction in Cireundeu traditional village. *Jurnal Kepariwisata: Destinasi, Hospitalitas dan Perjalanan*, 7(1), 51–66. <https://doi.org/10.34013/jk.v7i1.908>
-

- Ruchliyadi, D. A., & Adawiah, R. (2023). Forming ecological citizenship attitudes in aquatic environment schools. *Al-Isblah: Jurnal Pendidikan*, 15(4), 4403–4416. <https://doi.org/10.35445/alishlah.v15i4.4429>
- Samodra, Y. T. J., Suryadi, D., Wati, I. D. P., Supriatna, E., Santika, I. G. P. N. A., Suganda, M. A., & Dewi, P. C. P. (2023). Analysis of gross motor skills of elementary school students: A comparative study of students in hill and coastal areas. *Pedagogy of Physical Culture and Sports*, 27(2), 139–145. <https://doi.org/10.15561/26649837.2023.0206>
- Sari, R. M., Urfan, F., Ridhwan, R., Herliza, M., Dani, F. R., & Sembiring, T. B. (2023). 3D street story map learning media for high school students' spatial thinking ability. *Journal for Lesson and Learning Studies*, 6(3), 379–389. <https://doi.org/10.23887/jlls.v6i3.58812>
- Satrya, D. G., & Muljono, V. F. (2022). A sustainable tourism development strategy in Manggarai Regency. *E-Journal of Tourism*. 9(2). <https://doi.org/10.24922/eot.v9i2.87706>
- Shafie, M. S., Taff, M. A. M., Zainol, Z., Rasid, S. M. M., Hashim, M., Said, O. F. M., Azlan, M. N., & Afandi, M. A. M. (2022). Advancing outdoor education: Validation of the adventure-based mental toughness model. *JUMORA: Jurnal Moderasi Olahraga*, 2(1), 89–99. <https://doi.org/10.53863/mor.v2i1.408>
- Suryadi, D., Nasrulloh, A., Yanti, N., Ramli, R., Fauzan, L. A., Kushartanti, W., Sumaryanti, S., Suhartini, B., Budayati, E. S., Arovah, N. I., Mashud, M., Suganda, M. A., Sumaryanto, S., Sutapa, P., Abdullah, N. M., & Fauziah, E. (2023). Stimulation of motor skills through game models in early childhood and elementary school students: A systematic review in Indonesia. *Retos*, 51, 1255–1261. <https://doi.org/10.47197/retos.v55.103771>
- Sutinah, C., Widodo, A., Muslim, M., Syaodih, E., & Samsudin, S. B. (2024). Climate change: STEM project and systems thinking for holistic solutions. *Advances in Social Science, Education and Humanities Research*, 225–233. https://doi.org/10.2991/978-2-38476-206-4_26
- Udjir, N., & Watini, S. (2022). Implementasi model ATIK dalam meningkatkan kemampuan bahasa anak melalui permainan kartu bergambar di RA Ifitah Al-Ikhlas Ambon. *Aksara: Jurnal Ilmu Pendidikan Nonformal*, 8(3), 1861–1872. <https://doi.org/10.37905/aksara.8.3.1861-1872.2022>
- Wulandary, H. (2022). Analysis of commissive speech act in *Moana* the movie. *Al Adzkiya International of Education and Social (AIoES) Journal*, 3(1), 52–65. <https://doi.org/10.55311/aioes.v3i2.187>
-

Copyright Holder :

© Khatimah et al. (2026).

First Publication Right :

© Indonesian Journal of Early Childhood Educational Research

This article is under:

