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The Use of Natural Environment Media in Early Childhood Learning at RA Alkhairat Kalumpang

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ABSTRACT

This study aimed to examine the use of natural resources in early childhood learning at RA Alkhairat Kalumpang. The study used a descriptive qualitative approach with three teachers and 42 students from Groups A and B as subjects. Data were collected through observations, interviews, and documentation and analyzed using data reduction, data presentation, and conclusion drawing techniques. The results showed that teachers utilized various natural resources, such as leaves, gravel, soil, sand, and water, in learning activities, although they were not systematically planned in written learning materials. The use of natural resources can create active, contextual, and child-centered learning. Children show higher levels of participation and enthusiasm, as well as positive development in cognitive, motor, socio-emotional, and language aspects. These findings are in line with Piaget's cognitive development theory, the Montessori approach, and contextual learning, which emphasize the importance of concrete learning experiences and direct interaction with the environment. The obstacles encountered included limited lesson planning, preparation time, and concerns about the cleanliness and safety of natural resources. This study concludes that natural resources are effective, economical, and relevant learning resources for improving the quality of early childhood learning.

Keywords: Environmental Media, Early Childhood Learning, RA Alkhairaat Kalumpang.

I. Introduction

Early childhood education is a crucial foundation for character formation and the development of children's future potential. During early childhood, children experience a golden age in which brain development reaches 80% of the total adult brain capacity (Sujiono & Nurani, 2019). Effective learning at this age requires a concrete and engaging approach that aligns with the active and exploratory developmental characteristics of children. The use of learning media is a crucial component of early childhood education. Appropriate learning media can stimulate all aspects of a child's development, including cognitive, motor, socio-emotional, language, and religious and moral values (Hayati & Putro, 2021). However, the reality on the ground shows that many early childhood education institutions still face limitations in the provision of learning media, both in terms of quantity and quality of learning media. These limitations are often caused by

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economic factors and the lack of creativity of educators in utilizing available resources in the surrounding environment (Islamiyah & Suparno, 2019).

Natural resources are a highly potential alternative solution to address these issues. Natural resources are all objects, phenomena, and conditions in a child's environment that can be utilized as learning tools (Widyaningrum & Hasanudin, 2019). Utilizing natural resources in learning offers several advantages, including being readily available, affordable, or even free, contextual to children's lives, and providing authentic and meaningful learning experiences (Masuku et al., 2024). Research (Handayani & Ichsan, 2025) shows that nature-based learning can enhance children's naturalist intelligence and foster environmental awareness from an early age. Furthermore, learning in the natural environment aligns with the concept of contextual learning and a scientific approach that emphasizes direct exploration (Rahayu et al., 2023). Children learn not only through abstract concepts but also by seeing, touching, feeling, and interacting directly with learning objects. This is very much in line with Piaget's cognitive development theory which states that early childhood is in the pre-operational stage which requires concrete experiences in learning (Piaget.J, 1952)

Raudhatul Athfal (RA) Alkhairat Kalumpang is an early childhood education institution located in a rural area with limited access to expensive conventional learning media. Based on initial observations conducted in September 2024, RA Alkhairat Kalumpang had 42 students divided into two groups. The availability of learning media at the institution was still very limited, with only five types of pre-made Educational Game Tools (APE) available, and these were in poor condition. Interviews with three teachers revealed that they rarely used a variety of learning media, with media use occurring only two to three times a week, or approximately 40% of the total learning activities. However, the environment around RA Alkhairat Kalumpang is rich in natural resources that can be utilized as learning media, such as leaves, rocks, twigs, soil, water, and various types of plants.

However, further observations revealed an interesting phenomenon. Several teachers at RA Alkhairat Kalumpang have begun utilizing natural resources in their learning activities, although this has not been done systematically or optimally. This utilization is evident in activities such as playing with leaves to learn colors and shapes, using pebbles to learn counting, and using clay to develop fine motor skills. Observations of eight learning activities revealed that when teachers used natural resources, the level of student participation and enthusiasm reached 85%, significantly higher than the 55% level when learning without these resources. Children appeared more active, asked more questions, and completed their learning tasks better.

This situation demonstrates the significant potential for utilizing natural resources to improve the quality of learning at RA Alkhairat Kalumpang. However, the practice of utilizing natural resources remains sporadic and is poorly documented. However, no in-depth study has been conducted on how teachers utilize natural resources, the types of resources used, and their impact on various aspects of child development. Documentation and analysis of these good practices are crucial for replication and further development, both within this institution and in other early childhood education institutions with similar characteristics. Based on this background, this research is crucial for conducting an in-depth study of the use of natural resources in early childhood learning at RA Alkhairat Kalumpang. This study is expected to provide practical contributions to early childhood educators in optimizing the use of natural resources as effective, affordable, and meaningful learning media, while also providing a theoretical basis for nature-based learning practices in early childhood education institutions.

II. Literature Review and Hypothesis Development

2.1. Early Childhood Education Concept

Early childhood education is a developmental effort aimed at children from birth to six years of age, carried out through educational stimulation to support physical and spiritual growth and development so

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that children are prepared to enter further education. According to Hayati and Putro (2021), early childhood education plays a fundamental role in shaping a child's character and personality. This is because, during this period, children experience rapid growth and development in various aspects, including cognitive, language, socio-emotional, physical-motor, and religious and moral values. Therefore, education provided during this period must be well-designed and aligned with the characteristics of holistic and integrative child development so that all children's potential can develop optimally. Early childhood learning has unique characteristics that differ from those of learning at higher levels of education. Research (Fauziyah et al., 2025) shows that early childhood learning must be child-centered, utilize a play-while-learning approach, and provide concrete, hands-on experiences. Effective learning at this age stimulates children to actively explore, discover, and solve problems through interaction with their surroundings. This aligns with the principles of active learning, which emphasizes children's direct involvement in the learning process rather than simply passively receiving information from the teacher. According to Piaget's theory, early childhood cognitive development is in the preoperational stage, where children learn through concrete experiences and manipulate real objects. (Marinda 2020) explains that at this stage, children are not yet capable of abstract thinking and therefore require concrete, directly perceptible learning media. Children's symbolic thinking skills are beginning to develop, but they are still highly dependent on sensorimotor experiences and direct perception of objects in their environment. This understanding serves as an important foundation for designing learning that is appropriate to a child's cognitive developmental level, including selecting appropriate learning media (Khaironi, 2018).

2.2. Early Childhood Learning Media

Learning media are anything that can be used to convey messages from sender to recipient, thereby stimulating children's thoughts, feelings, attention, and interests in the learning process (Marasabessy et al., 2025). In the context of early childhood education, Wahidin (2025) emphasized that learning media has a vital function because it can concretize abstract concepts, stimulate learning motivation, and provide experiences that are not easily obtained through other means. Good learning media for early childhood are multisensory, meaning they can stimulate a child's various senses simultaneously, making learning more meaningful and memorable. The selection of appropriate media significantly influences the success of the learning process and the achievement of educational goals. The use of varied learning media positively impacts various aspects of child development. A study by Safira (2010) found that engaging learning media tailored to children's characteristics can significantly improve children's concentration, motivation, and learning outcomes. The study explained that when teachers use varied and engaging learning media, children show high enthusiasm, ask more questions, and better understand learning concepts. This is because learning media can create a fun and meaningful learning experience for children, so that the learning process is no longer boring but becomes an activity they look forward to.

The classification of learning media for early childhood can be distinguished based on their sources and characteristics. According to Kustiawan (2016), learning media can be divided into visual, audio, audio-visual, and three-dimensional media or real objects. Each type of media has its own advantages and disadvantages in supporting the learning process. Visual media, such as pictures and posters, are suitable for introducing basic concepts; audio media, such as songs and stories, can develop listening and language skills; and media with real or three-dimensional objects are very effective for developing children's understanding of concrete concepts and motor skills. In practice, the combination of various types of media provides a richer and more comprehensive learning experience for children.

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2.3. Natural Environment Media in Learning

Natural resources are all objects, living creatures, natural phenomena, and environmental conditions surrounding children that can be utilized as learning resources in educational processes. Lestariningrum et al. (2023) explained that natural resources have distinct advantages because they are authentic, contextual to children's daily lives, readily available, and generally inexpensive. Natural resources can include natural objects such as leaves, twigs, rocks, soil, water, sand, flowers, and various other natural objects available in a child's environment. Utilizing natural resources can also provide more meaningful learning experiences because children can directly interact with real objects present in their daily lives. Nature-based learning has a strong philosophical foundation in the theory of progressive education. Research (Wulansari & Sugito, 2016) reveals that nature-based learning aligns with the educational concepts put forward by educational figures such as Friedrich Froebel and Maria Montessori, who emphasized the importance of children's direct contact with nature as a primary learning resource. Nature-based learning can develop children's naturalist intelligence, that is, the ability to recognize, differentiate, categorize, and utilize elements found in nature. Furthermore, nature-based learning can foster children's awareness and concern for the environment from an early age, foster a love of nature, and develop observation and exploration skills, which are the foundations of scientific thinking. The use of natural environmental media has a positive impact on various aspects of early childhood development. A study (Amiliya & M, 2020) showed that natural environment-based learning media can improve children's science skills, particularly in observing, classifying, and communicating observational results. The study found that children who learned using natural environment media showed significant improvements in their science process skills compared to those who learned using conventional media. Children became more skilled at observation, were able to identify differences and similarities between objects, and were able to explain their observations more effectively. This is because natural environment media provide opportunities for children to directly engage in the scientific process through exploration and experimentation.

2.4. Types of Natural Environment Media

Natural media have different functions and benefits for learning. According to Nasaruddin (2015), natural media can be grouped into plant-based media (such as leaves, flowers, seeds, twigs, and bark), soil- and rock-based media (such as clay, sand, gravel, and rocks), aquatic media (such as water and ice), and natural phenomena (such as wind, rain, sun, and shadows). Each type of natural media can be used to develop different aspects of children's development. For example, leaves can be used to introduce the concepts of color, shape, texture, and size; pebbles can be used to learn counting and basic math concepts; and clay can be used to develop children's creativity and fine motor skills. The use of plants and their parts as learning media has enormous potential for developing various competencies in children. Research (Wahidin, 2025) has revealed that the use of leaves, flowers, and seeds in learning can stimulate children's creativity, develop artistic abilities, and enhance their understanding of life cycles and ecosystems. In this study, children were invited to create collages using various types of leaves in different colors and shapes, create patterns using seeds, and observe the growth process of plants from seed to mature plants. These activities not only develop cognitive and motor skills but also foster curiosity, patience and responsibility.

Soil, sand, and water are natural media that children greatly enjoy and have high educational value. Studies have shown that playing with soil, sand, and water (messy play) can simultaneously develop children's sensory, motor, cognitive, and social-emotional skills. While playing with these media, children learn simple physics concepts such as weight, volume, texture, and changes in shape. They also develop fine motor skills by pouring, stirring, shaping, and manipulating these media. Furthermore, playing with natural media can be a beneficial form of sensory therapy for children who experience sensory processing difficulties (Asmah & Mustaji, 2014).

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2.5. Challenges and Solutions for Utilizing Natural Environment-Based Media

Despite its many benefits, the use of natural resources in learning faces various challenges that need to be addressed. According to Nasaruddin (2015), one of the main challenges is teachers' and parents' concerns about the safety and cleanliness of natural resources. Many teachers worry that children will get dirty, injured, or exposed to germs when playing with natural resources, such as soil, sand, or water. This concern often makes teachers reluctant to use natural resources for learning. To overcome this challenge, a good understanding of the benefits of learning with natural resources is needed, along with the implementation of clear safety standards, such as ensuring that the natural resources used are clean and safe, properly supervising children during activities, and encouraging children to wash their hands after playing with natural resources.

Teachers' limited knowledge and skills in utilizing natural resources also hinder the implementation of nature-based learning. Research (Rahayu et al., 2023) reveals that many teachers lack a sufficient understanding of how to integrate natural resources into the curriculum, design engaging and meaningful activities using natural resources, and evaluate learning outcomes using natural resources. To address these challenges, ongoing training and mentoring of teachers on nature-based learning is necessary. Teachers need to be equipped with knowledge about the types of natural media that can be used, the techniques for utilizing them, and effective learning strategies. Furthermore, building a learning community among teachers is important so that they can share experiences and best practices.

Seasonal changes and the inconsistent availability of natural media also pose challenges to their use. According to Handayani and Ichsan (2025), during certain seasons, some types of natural media may be unavailable or difficult to obtain, requiring teachers to have alternative media or flexible learning strategies. To address this challenge, teachers can plan lessons that take seasonal factors and the availability of natural media into account. Teachers can also preserve certain natural media for year-round use, such as drying leaves and flowers, storing seeds in airtight containers, or creating herbariums. Furthermore, teachers can develop networks with the surrounding community to gain access to various types of natural media that may not be readily available locally to them. Limited facilities and infrastructure supporting outdoor learning also hinder the use of natural media. Hayati and Putro (2021) showed that not all early childhood education institutions have adequate yards or outdoor areas for nature-based learning. Some early childhood education institutions located in urban or densely populated areas have limited space, making it difficult to conduct outdoor activities optimally. To overcome this limitation, teachers can utilize limited space more creatively, such as by creating miniature gardens in pots, creating sensory gardens in small areas, or conducting regular visits to parks or green open areas around the school. Collaboration with local governments and communities can also be conducted to gain access to green open spaces that can be used for learning.

III. Research Method

This study used a descriptive qualitative approach (Sugiyono, 2017) to provide an in-depth description of the use of natural resources in early childhood learning at RA Alkhairat Kalumpang. This approach was chosen because the research focuses on the process, learning practices, and experiences of teachers and children in utilizing natural resources in a natural and contextual way.

The study was conducted at RA Alkhairat Kalumpang, South Halmahera Regency, from September to October 2025. The study subjects consisted of three class teachers and 42 students in groups A and B. The subjects were selected purposively, considering their direct involvement in the learning process using natural resources. Data collection techniques included observations, in-depth interviews, and documentation. Observations were conducted to directly observe learning activities utilizing natural resources and children's involvement during the activities. Interviews with teachers were conducted to explore their understanding,

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strategies, and obstacles in utilizing natural resources. Documentation was used to strengthen the data, including activity photos, lesson plans (RPPH), and learning notes (RPPH). Data analysis was conducted through the stages of data reduction, data presentation, and conclusion drawing, in accordance with Miles and Huberman's interactive analysis model. Data validity was ensured through the triangulation of techniques and sources, resulting in valid and reliable data (Miles and Huberman, 1994).

IV. Result and Discussion

4.1. Utilization of Natural Media in the Learning Process

Research results show that teachers at RA Alkhairat Kalumpang have utilized various natural resources as learning tools for early childhood, although they have not yet been systematically designed into written learning materials. The natural resources used include leaves, pebbles, clay, sand, water, and twigs obtained from the surroundings of the school. These resources are used in play-based learning activities such as recognizing colors and shapes, simple counting, and sensorimotor activities. The learning process is active and child-centered. Teachers act as facilitators, providing initial guidance and opportunities for children to directly explore natural resources. Observations of learning activities indicate that using natural resources creates a more enjoyable and contextual learning environment and encourages optimal child engagement.

4.2. The Impact of Using Natural Media on Child Development

The use of natural resources has a positive impact on various aspects of children's development. Cognitively, children understand the concepts of color, shape, quantity, and size more easily through direct experience. Motorically, children actively engage in activities such as holding, arranging, shaping, and manipulating natural objects, fostering the development of both fine and gross motor skills. Furthermore, the use of natural resources impacts children's social-emotional and language development. Children learn to cooperate, share, and follow rules during these activities. Children's language skills develop through storytelling and the expression of observations. Observational data show that children's participation and enthusiasm levels reach approximately 85% when learning using natural resources, which is higher than the approximately 55% achieved when learning without resources.

4.3. Teachers' Obstacles and Efforts in Utilizing Natural Media

Despite its significant benefits, the use of natural resources still faces several challenges, including the lack of specifically documented lesson plans, teachers' limited time to prepare activities, and concerns about the cleanliness and safety of natural resources. The use of natural resources also relies on individual teacher initiative and has not yet become a comprehensive integrated learning practice. To address these challenges, teachers choose readily available and safe natural resources, clean the resources before learning activities, and provide intensive supervision to children during the activities. Teachers are also starting to hold informal discussions with each other to share experiences and strategies for optimally utilizing natural resources.

4.4. Discussion

The research results show that the use of natural resources in learning at RA Alkhairat Kalumpang creates an active, meaningful learning process that aligns with the developmental characteristics of early childhood. These findings confirm that natural resources play a crucial role as concrete learning tools, enabling

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children to learn through direct experience. Children not only receive information verbally, but also actively engage in observing, touching, and manipulating learning objects, making the learning process more contextual and meaningful. These findings align with Jean Piaget's cognitive development theory (Piaget, 1952), which states that early childhood is in the preoperational stage, where children's thinking processes are still heavily dependent on concrete experiences and real objects. The use of natural resources, such as leaves, stones, and soil, provides opportunities for children to engage in natural assimilation and accommodation. Children construct new knowledge based on their direct experiences, thus strengthening and solidifying their understanding of concepts such as color, shape, number, and size compared to abstract learning.

Furthermore, the research findings are relevant to the Montessori approach, which emphasizes the importance of environment-based learning and the use of concrete materials. Montessori views nature as a "living laboratory" rich in learning stimuli. In the context of RA Alkhairat Kalumpang, natural resources serve as learning tools that encourage children's independence, concentration, and freedom (Arsy et al., 2025). Children are given the opportunity to choose, explore, and complete activities according to their interests and abilities, while the teacher acts as a facilitator and provides guidance as needed. Learning using natural resources also reflects the principles of contextual teaching and learning, which emphasizes the connection between learning materials and children's real lives (Hudson & Vesta R. Whisler, 2007). The natural resources used are derived from children's everyday environment, making learning relevant and understandable. Children learn not only from the context of their lives but also by utilizing the environment as a primary learning resource. This makes learning more meaningful and encourages children to connect their learning experiences with their everyday lives.

The positive impact of using natural resources on children's activeness and enthusiasm, reaching 85%, indicates that nature-based learning can increase children's motivation to learn. This situation reinforces Piaget and Montessori's views that children are active learners who learn best through exploration and direct interaction with their environment. When children are given space to explore, their curiosity and engagement in learning increase significantly. Furthermore, the findings of this study indicate that the use of natural resources impacts not only cognitive aspects but also motor, socio-emotional, and language development. Playing with natural resources encourages children to cooperate, share and communicate with their peers. This aligns with contextual learning, which emphasizes the importance of social interaction in building children's knowledge and skills.

However, the findings also revealed obstacles to the use of natural resources, such as the lack of systematic lesson planning and teachers' concerns about the cleanliness and safety of the resources. From the perspective of Montessori theory and contextual learning, these obstacles demonstrate the need for a more deliberate role for teachers in preparing a safe, orderly, and supportive learning environment for children's exploration. Teachers must develop lesson plans that explicitly integrate natural resources into their learning strategies. Overall, the results of this study reinforce the relevance of Piaget's, Montessori's, and contextual learning theories in nature-based early childhood learning practices. The use of natural resources provides concrete, contextual, and child-centered learning, thus supporting holistic child development. These findings confirm that natural resources are an effective, affordable, and applicable alternative learning medium, particularly for early childhood education institutions with limited facilities and infrastructure.

V. Conclusion

Based on the research results and discussion, it can be concluded that the use of natural resources in early childhood learning at RA Alkhairat Kalumpang positively contributes to the quality of the learning process and its outcomes. Natural resources such as leaves, stones, soil, sand, and water provide concrete, contextual, and child-centered learning, thereby increasing children's activity, enthusiasm, and participation in learning activities. The use of natural resources has been proven to support holistic child development,

encompassing cognitive, motor, social-emotional, and linguistic development. Children grasp learning concepts more easily through direct experience and demonstrate enhanced abilities to collaborate, communicate, and explore. These findings reinforce the relevance of Piaget's theory, the Montessori approach, and contextual learning in early childhood education practices. However, the use of natural resources at RA Alkhairat Kalumpang still faces challenges, particularly the lack of systematic integration of natural resources into lesson planning and teachers' concerns about cleanliness and safety. Therefore, more planned and sustainable efforts are needed to maximize the use of these natural resources.

References

Ajeng Riski Safira. (2010). Media Pembelajaran Anak Usia Dini. Caramedia Cumunication.

Amiliya, R., & M, A. D. (2020). Pembelajaran Berbasis Alam untuk Kemampuan Problem Solving Anak Usia Dini. Mitra Ash-Shibyan Jurnal Pendidikan Dan Konseling, 03(02), 79–87.

Arsy, Loka, N., Wardhani, A. E., Rahmadani, A. L., & Ningsih, E. P. (2025). Strategi Pembelajaran Berbasis Montessori Pada Anak Usia Dini. Jurnal I'tibar Jurnal Pendidikan Islam Anak Usia Dini, 9(01), 59–69.

Asmah, A., & Mustaji. (2014). Pengaruh Pemanfaatan Lingkungan Alam Pasir Sebagai Sumber Belajar Terhadap Kemampuan Sains Dan Motorik Halus Anak Usia Dini. Jurnal Kwangsan, 2(1), 13–36.

Fauziyah, C., Nursalim, M., & Susarno, L. H. (2025). Penerapan Filsafat Humanisme Dalam Pembelajaran Anak Usia Dini. Learning : Jurnal Inovasi Penelitian Pendidikan Dan Pembelajaran, 5(2), 646–654.

Handayani, M. S., & Ichsan, I. (2025). Peran Lingkungan Agraris dalam Membentuk Kecerdasan Naturalis pada Anak Usia Dini. Journal of Early Childhood and Character Education, 5(1), 1–16. https://doi.org/10.21580/joecce.v5i1.26436

Hayati, S. N., & Putro, K. Z. (2021). Bermain dan permainan anak usia dini. Generasi Emas Jurnal Pendidikan Islam Anak Usia Din, 4(1), 52–64.

Hudson, C. C., & Vesta R. Whisler. (2007). Contextual Teaching and Learning for Practitioners. Systemics, Cybernetics, and Informatics, 6(4), 54–58.

Islamiyah, R., & Suparno. (2019). Teacher Knowledge in Early Childhood Gender Education. Jurnal Pendidikan Usia Dini, 13(2.November), 327–340.

Khaironi, M. (2018). Perkembangan Anak Usia Dini. Jurnal Golden Age Hamzanwadi University, 3(1), 1–12.

Kustiawan, U. (2016). Pengembangan media pembelajaran anak usia dini. Penerbit Gunung Samudera [Grup Penerbit PT Book Mart Indonesia.

Lestariningrum, A., Andyastuti, E., Lailiyah, N., Prastihastari, I., & Yogi, D. (2023). Pemanfaatan Buku Cerita Berbasis Kearifan Lokal Untuk Meningkatkan Nilai-Nilai Pancasila Di Taman Kanak-Kanak. Jurnal Pendidikan Indonesia: Teori, Penelitian Dan Inovasi ISSN, 3(1), 1–8.

Marasabessy, Z. A., Adam, A., Dufri, I., Werfewubun, J., & Silim, S. (2025). Pelatihan Pemanfaatan Ai Bagi Guru Dalam Merancang Materi Ajar Berbasis Teknologi Di. Martabe, 8(1), 79–93.

Mardiani Masuku, Aida Surilani Kailu, Adiyana Adam, K. L. (2024). Peranan Media Pembelajaran dalam Memperbaiki Prestasi Belajar Siswa di MTs Negeri 2 Kepulauan Sula. Jurnal Ilmiah Wahana Pendidikan, 10(9), 921–929. https://doi.org/10.5281/zenodo.11353517

Marinda, L. (2020). Teori Perkembangan Kognitif Jean Piaget Dan Problematikanya Pada Anak Usia Sekolah Dasar. An-Nisa' : Jurnal Kajian Perempuan & Keislaman, 13(1), 116–152.

Miles, M and Huberman, A.. (1994). Qualitative Data Analysis. Thousand Oaks, USA: Sage Publications.

Nasaruddin. (2015). Media Dan Alat Peraga Dalam Pembelajaran Matematika. Al-Khwarizmi: Jurnal Pendidikan Matematika Dan Ilmu Pengetahuan Alam, 3(2), 21–30. https://doi.org/10.24256/jpmipa.v3i2.232

Piaget.J. (1952). The Origins of Intelligence in Children. New York: International University Press.

Rahayu, N. A., Tahir, M., Astini, B. N., & Suwasa, I. M. A. (2023). Pengaruh Kegiatan Kirigami Terhadap Kemampuan Motorik Halus Dan Kreativitas Anak Kelompok B Di Tk Gugus 1 Kecamatan Selaparang Tahun 2023. Jurnal Ilmiah Profesi Pendidikan, 8(4 November).

ISSN [Online]: 2797-5827

Sugiyono. (2017). Metode Penelitian Pendidikan: Pendekatan Kuantitatif, Kualitatif, dan R&D.

Sujiono and Dr. Yuliani Nurani.M.Pd. (2019). Konsep dasar pendidikan anak usia dini.

Wahidin. (2025). Pengembangan Media Pembelajaran Visual Untuk Meningkatkan Pemahaman Konsep Siswa. Jurnal Ilmiah Edukatif, 11(1), 285–295.

Widyaningrum, H. K., & Hasanudin, C. (2019). Menulis Permulaan (MMP) di Sekolah Dasar [Study of Difficulty Learning to Read Beginning Writing (MMP) in Primary School]. Pedagogia: Jurnal Pendidikan, 8(2), 189–200. https://doi.org/10.21070/pedagogia.v8i2.2219

Wulansari, B. Y., & Sugito. (2016). Pengembangan Model Pembelajaran Berbasis Alam Untuk Meningkatkan Kualitas Proses Belajaranak Usia Dini B. Jurnal Pendidikan Dan Pemberdayaan Masyarakat, 3(1), 16–27.