



Nature-based Learning Management in Improving Children's Natural Intelligence

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Abstract:

This study aims to analyze children's natural intelligence improvement through nature-based learning management at RA Al Khodijah Probolinggo. The research method used is a qualitative case study type. Researchers conducted observations, interviews with principals and teachers, and documentation. Data analysis in this study begins with data collection and reduction and continues with concluding. The results show that nature-based learning effectively increases the natural intelligence of early childhood through nature-based learning, which is an introduction to forms of love for nature or the surrounding environment, such as visiting the zoo, planting trees, and others. Students are expected to be able to learn with nature and be able to connect and apply the knowledge gained in real, everyday life.

Keywords: *Natural Intelligence, Management, Nature Based Learning*

Abstrak:

Penelitian ini bertujuan untuk menganalisis tentang peningkatan kecerdasan natural anak melalui manajemen pembelajaran berbasis alam di RA Al Khodijah Probolinggo. Metode penelitian yang digunakan adalah kualitatif jenis studi kasus. Peneliti melakukan observasi, interview terhadap kepala sekolah dan guru dan dokumentasi. Analisis data dalam penelitian ini diawali dengan pengumpulan data, reduksi data, dan dilanjutkan dengan penarikan kesimpulan. Hasil penelitian menunjukkan bahwa pembelajaran berbasis alam efektif dalam meningkatkan kecerdasan alami anak usia dini melalui pembelajaran berbasis alam, yaitu suatu pengenalan bentuk kecintaan terhadap alam ataupun lingkungan sekitar seperti mengunjungi kebun binatang, penanaman pohon, dan lain-lain. Siswa diharapkan dapat belajar dengan alam dan dapat menghubungkan dan menerapkan pengetahuan yang diperoleh dalam kehidupan nyata sehari-hari.

Kata Kunci: *Kecerdasan Natural, Manajemen, Pembelajaran Berbasis Alam*

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INTRODUCTION

Early childhood education occurs before the primary level of education; at this time, children are in a period of transition in their lives, referred to as the golden age, and it is critical for the development of human resources (Wulan, 2021). Early childhood education is a comprehensive development process for children aged birth to six years that includes both physical and non-physical aspects by stimulating appropriate physical, spiritual (moral and spiritual), motor, mental, emotional, and social development in order for children to grow and develop optimally (Azizah, 2021). Education for early childhood becomes an essential reference in selecting various approaches, models, or learning methods (Hakiki, 2021). All children can learn and improve their learning achievement when they have found the best learning style according to their intelligence (Lailani et al., 2020).

Intelligence in early childhood has a vital role in the future life because early childhood is an investment in later adulthood (Ahmed & Mai, 2021). Intelligence is a benchmark for the achievement of each individual, but intelligence is not a place to taste smart people or not, but the intelligence to see a person's potential, as we know every human being has different potential (Destarani & Sari, 2021). Intelligence is one of the factors that affect student learning outcomes. This intelligence is naturalist intelligence. Naturalist intelligence is a person's ability to identify natural patterns and their environment (Ahmed & Mai, 2021; Arns, 2021).

Learning to increase children's natural intelligence is very important at RA Al Khodijah Banyuwangi Probolinggo because children's natural intelligence is an introduction to a form of love for nature or the surrounding environment and should be given to children from an early age, that is, since children have started to know or know the surrounding environment. If the natural intelligence in a child can develop properly, of course, from an early age, he will appreciate and treat everything related to nature, and of course, this will be a provision until they grow up. In developing natural intelligence, it is necessary to have an appropriate and appropriate stimulus for children.

Nature-based learning management is a learning process that integrates teaching materials and the surrounding natural environment (Mukaromah, 2020; Worapun, 2021). However, in its implementation, nature-based learning management is not only carried out outside the environment or nature but can make what is in nature usable and transferred in the classroom with various learning models. In practice, the nature-based learning management process is a learning process where students do something instead of thinking about something. In improving children's natural intelligence, RA Al Khodijah Banyuwangi Probolinggo uses nature as a learning model. Nature is used as a place to play and learn at the same time. Because as we know, playing in early childhood is a process of learning many things such as socializing, cooperation, tolerance, and most importantly, children's natural intelligence will be formed without realizing it. Because in playing, the multiple intelligences of the child's intelligence also come into play.

Naturalistic intelligence is recognizing and categorizing species, namely flora and fauna in the surrounding environment, recognizing species' existence, and mapping relationships between species. Students with good naturalistic intelligence will have a level of sensitivity to the surrounding environment. This is closely related to biology subjects at school (Kurniawan, 2017).

People with high levels of naturalist intelligence know how to distinguish different plants, animals, mountains, or cloud configurations within their ecological niche (Pramana et al., 2019). Naturalist intelligence can manifest in investigative activities, experiments, determining elements, natural phenomena, weather patterns, and conditions that change the characteristics of an object (ice melts when exposed to the sun's heat) (Rohenah et al., 2021).

Naturalist intelligence in children aged 2-3 only appears in the form of attention and interest in nature, directly or in pictures. Children aged 3-4 years already have attention, interest, knowledge of nature, the ability to treat animals and convey observations, and aspirations. Kindergarten children (aged 4-6 years) have an interest in nature (by observing, being involved, looking at pictures, collecting elements of plants/animals), caring for and caring for plants, documenting through pictures, and seeking information (asking questions, watching shows), and read) (Octrianty, 2018).

According to the results of observations at RA Al Khodijah, most of them still show their lack of attention to the surrounding environment. Seen in the activities of picking plants carelessly, littering, and still unable to participate in maintaining plants at school. In addition, they live in rural areas but cannot enjoy the nature surrounding them, which provides great potential for learning for children, such as being close to gardens, the sea, and so on.

In addition, children tend to prefer to play in the classroom and use games, such as playing with paper, bombs, and even colored pencils. They are less interested in using natural media around them. One of the causes is the lack of activities related to nature and the use of methods that are still monotonous. Teachers use pictures more often than natural objects when it is easy to get them in nature; teachers prefer to learn and play indoors than outdoors (outdoors).

In order to obtain a detailed and in-depth discussion, the researcher also reviewed several previous studies relevant to children's natural intelligence. For example, in the first study. Rohenah et al., (2021) explained that thus the naturalist intelligence of children has increased and is at an excellent level of development. Based on the results of the data obtained, it can be concluded that learning science can improve the naturalist intelligence of group B children in PAUD Al-Maidah Bandung-Serang. Rohenah et al., (2021) explained that theoretically, playing mosaic activities is not only exciting and able to develop children's natural intelligence, which is realized by making children closer to and liking nature (Azizah, 2021). It was explained that collage activities using natural media such as leaves, seeds, nuts, and sand, can increase naturalist intelligence in group A children of Kemala Bhayangkari Kindergarten 54 Ngawi. Mukti et al. (2020) explained that three aspects could support the

implementation of the Natural School: input, process, and product. The input aspect can be seen from the curriculum, educator competence, infrastructure, and financing, as well as the process aspect, namely management, teaching and learning process, assessment, and mentoring. In contrast, the outcome aspect can be seen from personality, naturalist, and kinesthetic intelligence.

From several previous studies that the author reviewed, it can be seen that naturalist intelligence is the skill of recognizing and categorizing species, namely flora and fauna in the surrounding environment, recognizing the existence of species, and mapping relationships between species. With the use of learning media, children cannot have direct contact and provide different experiences. At RA Al Khadijah, there are still children who lack naturalist intelligence; the low naturalist intelligence impacts the learning process, and there are still teachers who are monotonous and never carry out learning outside the classroom. Inadequate learning media, the method used by the teacher has not been able to increase the naturalist intelligence of early childhood.

Introduce and bring children closer to nature through activities directly related to nature. Developing children's natural intelligence can be done with nature-based learning management, which is one strategy in developing fun learning principles; this is because the learning carried out is based on playing while learning and making children the center of learning. By increasing children's natural intelligence through nature-based learning management at RA Al Khodijah, it is hoped that students will be able to recognize and categorize species, namely flora and fauna in the surrounding environment, recognize the existence of species, map the relationship between species and sensitivity to other natural phenomena (for example cloud formations and mountains).

Based on the explanation of increasing children's natural intelligence through nature-based learning management, this research is essential to do in order to find out what activities are included in the program to increase the natural intelligence of early childhood. By studying the improvement of children's natural intelligence through nature-based learning management at RA Al Khodijah, it can be seen what things teachers need to do at school, and this nature-based learning management can optimize the intelligence possessed by children to adapt creatively to the environment. A naturally beautiful, safe, the relaxed environment makes children comfortable to learn. Thus it can provide a recommendation for improvement and an assessment of the implementation of increasing children's natural intelligence through nature-based learning management.

RESEARCH METHODS

This study uses a qualitative case study approach to get an overview of increasing children's natural intelligence through nature-based learning at RA Al Khodijah Banyuanyar Probolinggo. The subjects in this study were the principal and teacher of RA Al Khadijah.

In collecting data, the authors used the method of observation, interviews with the principal, the teacher council, and parents at RA Al Khadijah. Researchers observed the activities of teachers and students in nature-based learning management, which is one strategy for developing fun learning principles. Other data to corroborate the results are taken from documents that can support and strengthen the research. The data analysis process in this study begins with collecting data through interviews and observations accompanied by documentation. After collecting all the data, the researcher reduces the data by sorting and selecting essential data according to the research topic. The reduced data is then presented in the research in a clear, coherent, and systematic way so that it is easy to understand. Finally, the research results that have been presented are verified to obtain conclusions.

RESULTS AND DISCUSSION

Children's Needs

Halimatus Sa'diyah, the school's principal, explained that there are still children who cannot recognize various kinds of animals and plants and are sensitive to natural phenomena, so they need learning that makes it easier for children to recognize various kinds of animals and plants. Invites children to go to the zoo for recreation and invites children to plant such as turmeric, galangal, and others.

It is essential to develop the potential of children's natural intelligence from an early age to optimize their cognitive development. Children's understanding of the concept of the natural environment and living things is taken through three stages: understanding the concept, the transition period, and the level of the symbol. Therefore, understanding the concept of the natural environment is a strong basis and foundation for children to increase natural intelligence at a more complex later stage (Suhartini & Laela, 2018).

Meanwhile, Hamidah as the class teacher, explained that by increasing naturalist intelligence in children, children could instill an attitude of love for nature so that children like to plant and preserve the environment. Naturalist intelligence has a huge role in today's modern age. Knowledge of children about nature, animals, and plants can lead children to professions that are by the intelligence they will have later; naturalist intelligence has an indispensable role in protecting nature so that it can maintain its sustainability so that it can be utilized by humans (Suhartini & Laela, 2018).

According to Hanifiyah as a class teacher, he explained that increasing naturalist intelligence in early childhood is critical because it will shape the character of children from an early age so that they can maintain and preserve nature and are sensitive to nature, namely flora, fauna, mountains, clouds and so on. The core components of naturalist intelligence are sensitivity to nature (flora, fauna, cloud formations, mountains), the ability to distinguish the members of a species, recognize the existence of other species, and map the relationship between several species both formally and informally (Hambali, 2017). One characteristic that exists in children who are strong in naturalist

intelligence is their enjoyment of nature, animals, for example, daring to approach, hold, pet, even have the instinct to care for nature and even become part of nature itself.

Material and Target

Halimatus Sa'diyah said that the nature-based learning management model is a learning model with principles of learning about nature, learning to use nature, and learning with nature. Learning about nature means that nature-based learning management models study natural concepts as learning materials. So that children are more effective in learning, such as the theme of plants, children are taught how to grow flowers and vegetables so that later children will get used to preserving the environment.

Nature-based learning management is a learning process that integrates teaching materials and the natural environment. However, in its implementation, nature-based learning management is not only carried out outside the environment or nature but can make what is in nature usable and transferred in the classroom with various learning models (Mukaromah, 2020). In practice, the nature-based learning management process is a learning process where students do something instead of thinking about something.

Meanwhile, according to Hamidah, planning for nature-based learning management models is emphasized, making themes and implementing sub-theme learning plans (RPPST). The theme chosen is a theme that supports nature-based learning management. Meanwhile, for nature conservation, it is adjusted to the developed sub-themes. RPPST accommodates one goal of natural environment sustainability to be introduced to early childhood.

Nature-based learning management Model adapts to the needs of children and the ability of children in the learning process. Nature-based learning management understands children according to their age and individual needs. These children's needs are stimulated in development activities. Development activities are part of this activity. In this activity, educators provide development activities according to the child's ability level. Regarding teaching materials and the learning process (Mukaromah, 2020).

According to Hanifiyah, implementing the nature-based learning management model consists of three steps: preliminary activities, core activities, and closing activities. Preliminary activities are carried out by providing apperception to determine the child's initial experience and connecting the material to be studied with the previous material. The next activity is to deliver an introduction to learning to foster a child's response so that they are interested in the learning to be carried out. Introductory activities can include stories, pictures, dialogues, singing, and so on. Enjoyable preliminary activities are the starting point for successful learning.

Nature-based learning management models effectively improve the quality of early childhood learning. The principle of the nature-based learning management model is learning about nature, using nature, and learning with nature to facilitate the child's learning process to understand the material. This

principle accommodates the learning characteristics of early childhood. Children are easier to understand when learning (Azizah, 2021).

Internalization of Nature-based Learning Management

Halimatus Sa'diyah said that the implementation of nature-based learning management is carried out in the open by utilizing nature as a learning medium; learning activities can develop aspects of the intelligence of students. As with the animal theme, when the peak of the theme, KB ArRaudlah students held Nature-based learning management by visiting the zoo, not only seeing but students being stimulated to be able to ask and answer questions submitted by other students.

Instilling the value of loving each other among God's creatures and the natural surroundings is very important. Early childhood learning about nature teaches children the importance of protecting nature. Naturalist intelligence is recognizing plants, animals, natural phenomena, and objects in the surrounding environment. Children who have naturalist intelligence prefer to play outdoors. Naturalist intelligence needs to be improved to foster children's concern for the natural environment so that children will love and protect nature (Nilsook et al., 2021).

Meanwhile, according to Hamidah, nature-based learning management indicates the level of achievement of children's cognitive development and concern for the environment. KB ArRaudlah held a lesson with the theme of the school environment and the sub-theme of plants where students were assigned to bring flowers from their respective homes and then arrive at school.

The process of early childhood learning activities can be used to develop cognitive abilities. Activities in teaching and learning activities should emphasize the development of cognitive structures by giving confidence to children to get direct opportunities in activities that are integrated learning and contain meaning (Baharun et al., 2021).

The Nature-based learning management Model adapts to the needs of children and the ability of children in the learning process, Hanifiah said. Nature-based learning management understands children according to their age and individual needs. These children's needs are stimulated in development activities. According to Septiani, the methods and learning media used must be adapted to the characteristics of early childhood. Because by adjusting the child's character, the learning objectives will be achieved properly (Barokati et al., 2022).

Nature-based learning management is one of the strategies that can be chosen to develop the principle of playing while learning and making active children the center of learning. Substantially, nature-based learning management is a learning system that offers how to invite children to become more familiar with nature and make them enthusiastic to carry out teaching and learning activities (Hidayat et al., 2021; Firdaus et al., 2020). A natural school is an alternative form of education by using nature as teaching material, a place to learn, and learning objects; with the concept of a natural school,

students are expected to be able to learn with nature and be able to relate and apply the knowledge gained to real everyday life.

Evaluation

This nature-based learning management model is implemented through play activities so that children become more enthusiastic about learning. Children voluntarily participate in learning activities without any coercion. Each child tends to have an alien intelligence; some have high intelligence in certain aspects while low in other areas. It is influenced by innate stimulation from an early age. Proper stimulation will make individual children who have high-quality intelligence. The intelligence includes mathematical logic intelligence, verbal linguistics, spatial, musical, kinesthetic, interpersonal, intrapersonal, naturalist, and spiritual. Children's learning should improve all children's intelligence so that children can adjust to the social environment well (Fitri & Rakimahwati, 2022).

Meanwhile, Hamidah said that with nature-based learning management, children could develop all aspects of their development. Nature-based learning management activities facilitate the entire development of children's abilities. The child's abilities include the ability of moral and religious values, physical motor skills, cognitive abilities, language skills, social-emotional abilities, and artistic abilities.

Cognitive learning activities for Early Childhood (AUD) have a vital role in developing the full potential of children. One of them is the potential of children's natural intelligence. Therefore, it is essential to develop the potential of children's natural intelligence from an early age to optimize their cognitive development. Children's understanding of the concept of the natural environment and living things is taken through three stages: understanding the concept, the transition period, and the level of the symbol. Therefore, understanding the concept of the natural environment is a strong basis and foundation for children to increase natural intelligence at a more complex later stage (Suhartini & Laela, 2018).

According to Hanifiyah, with nature-based learning management, children learn through concrete objects. Nature-based learning management activities facilitate children to interact with concrete learning resources from nature. Nature-based learning management seeks to display concrete objects in learning. Concrete objects help children get to know more about the learning material.

Learning media is anything that can be used to channel messages from adults or the environment too early childhood so that it can stimulate their thoughts, feelings, concerns, and interests to learn through play. The role of learning media for early childhood education is increasingly important, considering that children at that time are in a period of concrete thinking (Elce et al., 2021).

Romans, the student's guardian explained that children's nature-based learning management is the center of learning. Learning is carried out child-

centered, meaning that in nature-based learning management, the active learning process is the child. Educators are facilitators who better understand the phenomena that children will find when constructing knowledge about nature.

Natural environmental conditions will attract the child's spontaneous attention so that they have an understanding and wealth of knowledge from their environment. Teaching materials in the environment around the child will be easy to remember, see and practice, so that teaching activities become functional (Syukur & Fallo, 2019).

Romla, as the student's guardian, explained that nature-based learning management children learn through the interaction of peers and adults. Nature-based learning management is implemented through dialogue. Dialogue occurs in social relationships between children and educators or children with their peers. Children have a high curiosity that forms some questions about the environment around them.

Nature-based learning management model adapts to the needs of children and the ability of children in the learning process. Nature-based learning management understands children according to their age and individual needs (Mukaromah, 2020). This child's needs are stimulated in development activities. Development activities are part of this activity. In this activity, educators provide development activities according to the child's ability level regarding teaching materials and the learning process.

CONCLUSION

Nature-based learning management is effective in increasing the natural intelligence of early childhood. At RA Al Khodijah Banyuanyar Probolinggo, children's natural intelligence can be developed through nature-based learning management, namely an introduction to forms of love for nature or the surrounding environment, such as visiting the zoo, planting trees, and others. Nature-based learning management is a learning system that invites children to be more familiar with nature, learn to use nature, and learn with nature to facilitate the child's learning process in understanding material. Nature-based learning management is an alternative by using nature as teaching material, a place to learn, and learning objects; with the concept of a natural school, students are expected to learn with nature and be able to relate and apply the knowledge gained to real everyday life.

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