



OUTDOOR LEARNING: EDU FARM ACTIVITY IN IMPROVING THE NATURALISTIC INTELLIGENCE OF EARLY CHILDREN

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Abstract

This research is motivated by the fact that many schools facilitate outdoor learning activities as a means of developing naturalistic intelligence. Therefore, this research will examine whether Edu Farm is indeed effective if used as a way to increase naturalistic intelligence in young children in group B at the Sungai Rumbai Islamic Kindergarten. The research method used was qualitative with a case study approach on a sample of 12 children. Data collection was carried out by carrying out the observation and documentation stages. For data analysis using the Miles & Huberman technique which consists of 3 stages, namely data reduction, data presentation and drawing conclusions. The results of this research contribute to educators as an alternative to realizing naturalistic intelligence in early childhood by utilizing the surrounding environment as a means of education. Apart from that, from the research that has been carried out, information has been obtained that this activity can increase children's intelligence and build their knowledge through fun activities involving interactive activities. The latest in this research is that children are given the freedom to interact directly with farm animals. Apart from that, usually edu farm activities tend to be carried out at zoos, but this research carried out direct visits to livestock pens located around residents' homes.

Keyword: Outdoor Learning; Edu Farm Activity; Naturalistic Intelligence; Early Childhood

INTRODUCTION

The theory of Multiple Intelligence (MI) is a theory that examines and assesses two types of brain processes, namely mental ability and the process of learning and acquiring knowledge which identifies several subtypes of intelligence that must be developed by every normal individual to a certain extent, although certain individuals will develop several subtypes. more intelligence than others (Gonzalez-Trevino et al., 2020). The term intelligence has many definitions, given its complexity. Howard Gardner was the person who introduced the term multiple intelligences, which at that time still had 7 classifications but has recently increased to 9. He believes that a person has different intellectual strengths and competencies (Konstantinescu, 2014). This opinion then

classifies individuals as unique individuals with a variety of different talents and interests.

The term intelligence has many definitions, given its complexity. According to Gardner, individuals have a number of different intellectual strengths or competencies thus defining intelligence as referring to the biopsychological potential of our species to process certain types of information in certain ways (Gonzalez-Trevino et al., 2020). The term intelligence has many definitions, given its complexity. According to Gardner, individuals have a number of different intellectual strengths or competencies thus defining intelligence as referring to the biopsychological potential of our species to process certain types of information in certain ways (Pebriana, 2017). This uniqueness basically groups children into individuals who have different intelligence.

Individual intelligence as proposed by Gardner is classified into several types such as verbal-linguistic, logical-mathematical, visual-spatial, musical, kinesthetic, intrapersonal, interpersonal, existential and naturalistic intelligence. Children who are intelligent and sensitive to the environment will have the awareness to maintain and protect flora and fauna in nature so that this intelligence cannot be ignored. (Monika & Sari, 2022). This is what is called naturalistic intelligence.

Naturalistic intelligence is a form of sensitivity to the environment that must be honed and nurtured from an early age, both from the family and school environment. The school environment is usually taught by teachers through fun learning (Pramana et al., 2019). This intelligence is the ability to distinguish, categorize and classify plants and animals found in the open world. Someone who has naturalistic intelligence tends to have feelings of love for nature or is sensitive to the surrounding environment. This is what makes the role of naturalistic intelligence have an important place and position in developing children's talents and interests as individuals who have unique characteristics.

Research conducted by Gunitri & Suryana (2022) found that the results of life science activities had an impact on children's naturalistic intelligence. This can be seen from the fact that during the activity the children really enjoyed themselves and took part in a series of learning activities. This is also supported by research Wijaya & Dewi (2021) explained that naturalistic intelligence can be developed through reading books, managing the environment and surrounding culture so that teachers and parents only act as facilitators.

Several previous research results explain that there are several efforts that can be made to make this happen. Research from Rahman et al., (2018) Information was obtained that observation, investigation and experimental methods can be used to increase students' naturalistic intelligence compared to conventional methods.

So, if it is related to the world of children, learning like this is no longer strange in the Early Childhood Education environment. Usually activities like this are carried out in open spaces and involve more real interaction with the natural surroundings. So there is a close connection that can be used as a learning resource in the form of cultivating a sense of love and sensitivity towards the surrounding environment.

Outdoor learning is defined as learning that provides wider access for children to get to know the environment and nature directly. Apart from that, learning that involves an open environment becomes a new forum for children to continue exploring and exploring new things (Kamil & Hibana, 2023) which also contributes from the child's perspective in understanding the wider world which has an impact on the achievement of all aspects of their development (Ratnasari, 2020). This activity facilitates students to learn from direct experience to absorb knowledge practically. So this type of learning has recently become a choice for many educators to provide a pleasant learning experience (Aladag et al., 2021).

The focus of outdoor learning activities that will be studied in this research is edu farm activities or visiting farm animals.

The research studies that have been carried out answer various kinds of problems related to early childhood, especially sensitivity to animals. Because in fact, naturalistic intelligence needs and must be instilled as early as possible. This is because there is still news stating that young children are still found to be abusing animals, as reported by www.fimela.com (<https://www.fimela.com/lifestyle/read/3111827/unggah-video-lagi-nyiksa-kucing-netizen-minta-bocah-ini-tobat>).

So supervision and treatment from teachers is needed to handle this. The widespread news indicates that it is necessary to instill sensitivity in children so that they can have compassion for living creatures, especially animals. In fact, children can be taught how to love creatures with fun learning. So gap analysis in research is based on facts and ideals that are not in line with what has happened and the theories put forward by experts so researchers feel this needs to be used as research material.

METHODOLOGY

This research uses qualitative methods with a case study approach in early childhood aged 5-6 years. The research sample consisted of 12 people with a sampling technique, namely purposive sampling with sampling adjusted to the research objectives. The research location is the Sungai Rumbai Islamic Kindergarten with a focus on naturalistic intelligence research. To make research easier, data collection instruments were prepared in the form of a grid of instruments (tests), observations and documentation (Hardani et al., 2020). The technical data analysis uses the Miles & Huberman technique which starts from data reduction, data presentation and drawing conclusions (Fadli, 2021).

RESULTS AND DISCUSSION

Outdoor learning activities are an alternative for teachers to increase naturalistic intelligence in young children. Because learning that involves physical contact with the surrounding environment creates unforgettable experiences and memories for a child. This kind of learning has even been supported by the government in the Regulation of the Minister of Education and Culture of the Republic of Indonesia Number 146 of 2014 which classifies indicators that can be proposed as references in learning to improve the growth and development of children aged 4-5 years towards the natural surroundings (animals, plants, weather, land, water, rocks, etc.) is demonstrated by the child's ability to name objects around them and their benefits. Apart from that, children are also able to look after and maintain the objects around them. This means that children from birth

already have strong naturalistic intelligence so they must receive the right stimulus (Rahmiati dkk., 2021).

Children who have a high level of sensitivity to nature and their environment will later become zoologists and naturalists (Nurhayati dkk., 2022). Armstrong (2018) suggests that naturalistic intelligence is expertise in the recognition and classification of various species—flora and fauna—in an individual's environment. It also includes sensitivity to other natural phenomena (e.g. cloud formations and mountains) and, in the case of children growing up in urban environments, the ability to differentiate between inanimate objects such as cars, sneakers and smartphones.

The importance of learning emphasizes intelligence so that teachers are required to be able to choose and sort out enjoyable activities and the types of methods that will be carried out. Such as field trip methods, camping activities and outdoor learning. Research conducted by Al-Qatawneh et al., (2021). Based on the theoretical concepts presented by Gardner, there are indicators that serve as guidelines for determining naturalistic intelligence in students, shown by the ability to understand objects and elements in grouping activities. For activities that can be carried out through activities outside the classroom (outdoor learning, museum visits, field trips, visits to the zoo, nature walks and so on) apart from activities that require students to carry out experiments by utilizing and using natural objects, then that -This is related to questions that arise regarding how natural phenomena can occur.

The results of research related to naturalistic intelligence in early childhood were obtained from observations and instruments from grids as a guide in conducting observations in TK Islam Sungai Rumbai shows that naturalistic intelligence begins to appear when children interact with farm animals, namely goats. Although at first the activity process did not go smoothly because there were still children who did not dare to interact directly with the animals. This means that teachers still have to accompany children and provide an understanding of ongoing activities.

In the initial activity, before the child is taken to the farm, the teacher first sets the rules for what can and cannot be done during the activity. This is intended so that children understand what the rules are during the activity. Then the teacher checks each student's preparation by calling their names one by one and ensuring that the child is ready to start learning.

After this step is carried out, the next stage is that the teacher explains the various shapes and types of goats based on their physical characteristics. This activity was carried out using the question and answer method. From the method used, several children were able to name the various animals they would visit (goats). This is based on the fact that the children who were able to provide these answers have houses that are almost close to the farm. This means that some children often play and visit the farm. As for children who do not yet have knowledge regarding the types of goats and their body characteristics, the teacher uses photos to introduce the animal while explaining each body difference. From this activity, the teacher sees that children's understanding has begun to increase regarding the animals they will visit.

As for the third step, on the appointed day the teacher then takes the children to the farm and shows the children around. While the children are observing the goats in the pen, the teacher carries out question and answer activities with open questions using an unstructured flow. This is done to review the extent of the child's understanding regarding the material that has been presented in class. When the question and answer session was carried out, the results showed that out of 12 children, some children showed abilities at a good development stage and developed according to expectations.

The final step, after carrying out the activity with supervision from the teacher, is that the child is given the freedom to interact directly with the goat in the cage by giving open access for the child to feed it directly to the goat. From this activity, it shows that the children are very enthusiastic about this activity as a closing activity. Of the 12 children, there were still 2 children who were anxious and doubtful during the activity. This then requires teachers to continue to provide guidance and direction.

To make it easier for teachers to make observations, an instrument is needed. Some indicators of naturalistic intelligence are: 1) children like animals and plants; 2) children love the animals and plants around them; 3) children are able to care for the animals and plants they encounter (Firdausyi et al., 2022) .



Figure 1. Children's activities at Edu Farm

This activity, which lasts approximately 45 minutes, makes children enthusiastic and enthusiastic when learning. Children are able to answer several open questions asked by the teacher entirely based on instruments that have been prepared previously. Following are the results of the instrument during the activity which has a score range of 1-4 in several categories. For a value of 1 = Not Developed (BB); 2 = Starting to Develop (MB); 3 = Very Well Developed (BSB); 4 = Developing According to Expectations (BSH).

During the activity, 3 of the 12 children in the sample did not want to be directly involved in giving food to the goats in the cage. So the three children only saw and monitored 9 other children when doing this activity. After being approached by the teacher, finally the 3 children who had previously dared to interact while feeding the goats. When asked what the reason was, the 3 children answered that they were disgusted by the frequent dripping of goat saliva. Apart from that, 1 in 3 children has been headbutted by a goat while in their home environment.

The results of the research obtained results such as the following table:

Table 1. Naturalistic intelligence instruments

Number	Indicator	Score	Number of children
1	Children are able to name the physical characteristics of goats	4	12
2	Children are able to name the color of goat skin	4	12
3	Children can name what goats eat	4	12
4	Children can interact directly with goats without being accompanied	3	10
5	Children are able to retell activities that have been carried out	4	12
6	Children enjoy continuous learning	4	12
7	Children enjoy visiting the farm animals	4	12
8	Children are not afraid of farm animals	3	10

From the table above, the average results of the learning carried out show that children develop according to expectations (BSH). Only a few children are still at a very good stage of development. This is because at the time the activity was taking place there were still several children who were accompanied by teachers, so it was a lesson for teachers on how to foster interest and courage in these children so that they would not be afraid and be alert in the next outdoor learning lesson.

The first indicator is that all children are able to name the physical characteristics of goats based on activities carried out without the help of the teacher. This means that children explain based on the experiences they have had. Some children were even able to tell stories without being asked about other characteristics of goats, such as imitating the sound and shape of the feces they produce. This triggers other children to express when one child imitates the sound of a goat.

In the second indicator, children as a whole were able to name the color of the goat's skin in the cage. Some children also said that the texture of goat hair felt a bit soft to those who had touched it. The third indicator, generally children are able to explain what goats eat during the activity. The children looked enthusiastic about sharing their experiences of giving leaves directly to the animals. Apart from that, around 3 children said that they had seen goats salivating and goats eating while excreting feces.

For indicators four and eight, 2 children still need assistance from teachers. So the teacher pays more attention to the two children. And in the end, from the start of the activity to the end, the two children were still accompanied by the teacher. As for indicators five to seven, children are categorized as having the ability to develop according to expectations. Because children are happy and enjoy learning from start to finish. Some children even suggest activities like this be done every week.

So it can be concluded that the outdoor learning activities that have been carried out are one way for teachers to hone naturalistic intelligence with a focus on visiting livestock. In addition, this type of activity provides children with real experience and direct interaction with how animals live and survive. So, children don't just see videos or pictures, but there are interactive activities that build children's knowledge through direct experience.

CONCLUSION

Learning in an open environment is basically able to increase naturalistic intelligence in young children. One thing that can be used as a reference is visiting a farm. Children will interact directly with the animals and conditions there so that teachers can monitor the extent of their closeness to nature from these activities. One thing you can do is visit livestock (edu farm). From the results of the research that has been carried out, it can be concluded that children who are directly involved in EDU Farm activities are able to increase their naturalistic intelligence. This can be seen from the growing love of children for living creatures, especially plants and animals, which can be seen when children no longer feel afraid of interacting directly with livestock when providing food.

BIBLIOGRAPHY

- Al-Qatawneh, S. S., Alsalhi, N. R., Eltahir, M. E., & Siddig, O. A. (2021). The Representation of Multiple Intelligences in an Intermediate Arabic-Language Textbook and Teachers' Awareness of Them in Jordanian Schools. *Heliyon*, 7(March 2020), e07004. <https://doi.org/10.1016/j.heliyon.2021.e07004>
- Aladag, E., Arikan, A., & Ozenoglu, H. (2021). Nature education : Outdoor learning of map literacy skills and reflective thinking skill towards problem-solving. *Thinking Skills and Creativity*, 40(3). <https://doi.org/10.1016/j.tsc.2021.100815>
- Armstrong, T. (2018). *Multiple Intelligences in the Classroom* (4 ed.).
- Constantinescu, R.-S. (2014). The Theory of Multiple Intelligences- Applications in Mentoring Beginning Teachers. *Procedia - Social and Behavioral Sciences*, 116, 3345–3349. <https://doi.org/10.1016/j.sbspro.2014.01.761>
- Fadli, M. R. (2021). Memahami desain metode penelitian kualitatif. *HUMANIKA*, 21(1), 33–54. <https://doi.org/10.21831/hum.v21i1.38075>
- Firdausyi, A. N., Noormawanti, & Marlisa, L. (2022). Implementasi Kecerdasan Naturalis pada Anak dalam Tema Belajar “Aku Cinta Indonesia.” *Seminar Nasional Penelitian dan Pengabdian kepada Masyarakat*, 4, 69–75.
- Gonzalez-Trevino, I. M., Nunez-Rocha, G. M., Valencia-Hernandez, J. M., & Arrona-Palacios, A. (2020). Assessment of Multiple Intelligences in Elementary School Students in Mexico: An Exploratory Study. *Heliyon*, 6(February). <https://doi.org/10.1016/j.heliyon.2020.e03777>
- Gumitri, A., & Suryana, D. (2022). Stimulasi Kecerdasan Naturalis Anak Usia 5-6 Tahun melalui Kegiatan Life Science. *Jurnal Obsesi : Jurnal Pendidikan Anak Usia Dini*, 6(4), 3391–3398. <https://doi.org/10.31004/obsesi.v6i4.2334>
- Hardani, Auliya, N. H., Andriani, H., Fardani, R. A., Ustiawaty, J., Utami, E. F., Sukmana, D. J., & Istiqomah, R. R. (2020). *Metode Penelitian Kualitatif & Kuantitatif*. Penerbit Pustaka Ilmu.
- Kamil, N., & Hibana. (2023). Analisis Penerapan Pembelajaran Outdoor Learning Menurut Teori Froebel pada Anak Usia Dini. *Jurnal Educhild (Pendidikan & Sosial)*, 12(1), 12–16.

- Maryanti, S., Kurniah, N., & Yulidesni. (2019). Meningkatkan Kecerdasan Naturalistik Anak melalui Metode Pembelajaran Outing Class pada Kelompok B TK Asyiyah X Kota Bengkulu. *Jurnal Ilmiah Potensia*, 4(1), 22–31.
- Monika, K., & Sari, Y. M. (2022). Mengembangkan Kecerdasan Natural Anak Usia Dini Melalui Jurnal Alamku. *Jurnal Amal Pendidikan*, 3(2), 123–133.
- Nurhayati, S., Oktopiyani, Y., Nawawi, M., Wahyuni, Y., Mardhotillah, Iqbal, M., Hendrawan, Y., Hendrias, Royani, I., Meidiati, A., Rochmah, O., Siregar, F., & Vidiati, C. (2022). Membangun Kecerdasan Naturalis Anak Usia Dini melalui Interaksi Wisata Kandang Sapi (Studi Kasus PAUD Nurul Hikmah Desa Tegalkarang Kecamatan Palimanan Kabupaten Cirebon). *Hadlonah: Jurnal Pendidikan dan pengasuhan Anak*, 3(2), 122–134.
- Pebriana, P. H. (2017). Analisis Penggunaan Gadget terhadap Kemampuan Interaksi Sosial pada Anak Usia Dini. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, 1(1), 1–11. <https://doi.org/10.31004/obsesi.v1i1.26>
- Pramana, I. M. M., Sujana, I. W., & Wiyasa, I. K. N. (2019). Kontribusi Kecerdasan Naturalis dan Sikap Peduli Sosial terhadap Kompetensi Pengetahuan IPS Siswa Kelas IV SD. *International Journal of Educational Policies*, 18, 97–107.
- Rahman, I. F., Suryana, Y., & Nugraha, A. (2018). Meningkatkan Kecerdasan Naturalis melalui Metode Observation, Investigation dan Experiment dalam Materi Tumbuhan dan Hewan. *Pedadidaktika: Jurnal Ilmiah Pendidikan Guru Sekolah Dasar*, 5(3), 120–128.
- Rahmiati, Israwati, Rahmi, Amri, A., & Amalia, D. (2021). Mengembangkan Kecerdasan Naturalistik Anak Usia Dini Melalui Penerapan Metode Proyek di PAUD Ananda Riski Kabupaten Aceh Besar. *Jurnal Ilmiah Mahasiswa Pendidikan Anak Usia Dini (JIM PAUD)*, 6(4), 38–48.
- Ratnasari, E. M. (2020). Outdoor Learning terhadap Literasi Numerasi Anak Usia Dini. *ThufuLA: Jurnal Inovasi Pendidikan Guru Raudhatul Athfal*, 9(2).
- Wijaya, I. K. W. B., & Dewi, P. A. S. (2021). Pengembangan Kecerdasan Naturalis Anak Usia Dini melalui Model Pendidikan Lingkungan UNESCO. *Jurnal IDEAS: Pendidikan, Sosial dan Budaya*, 7(3), 97–100. <https://doi.org/10.32884/ideas.v7i3.449>