



ENVIRONMENTAL EDUCATION TRANSFORMATION IN EARLY CHILDHOOD THROUGH HORSE RACING AT DOMPU TRIBE

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Abstract

This study aims to examine the role of traditional horse racing games in the tribes of the Dompus tribe, Indonesia. This study uses a qualitative approach with ethnographic methods. The subjects of the study were five young jockeys aged 4-8 years and seven horse owners. Data were collected through observation, interviews, documentation and focus group discussion (FGD). Data were analyzed using domain analysis techniques, taxonomic analysis, componential analysis and theme analysis. The results of the study indicate that the transformation of environmental education in early childhood through horse racing games is done by growing children's concern for the environment and caring for animals, such as horses. During the process of horse racing, children are not permitted to damage nature and hurt animals. Therefore, horse racing becomes a means of environmental education for children for the sake of the preservation of nature. Horse racing is also one of the most environmentally cared tourist destinations for local people. Another important finding is that the traditional horse racing game in the Dompus tribe has become a medium of transformation of environmental education of for early childhood. This study informs that the transformation of environmental education can be done since children are aged 4 years through traditional horse racing games. This research can also be a reference for early childhood education practitioners to create a special school for children who have a hobby of riding horses.

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INTRODUCTION

One of the crucial problems facing the world today is environmental degradation, climate change, ecosystem degradation, and loss of biodiversity (Johnston, 2009). In this condition, it is important to transform environmental education. The transformation is to reflect, plan and make changes in education (Microsoft, 2015). Transformation is also interpreted as a process of adapting quickly to changes in the environment (Johnston, 2009). Environmental education transformation must start from early childhood. Children must be given the opportunity to explore their environment. This learning will direct children to understand environmental literacy (NAAEE, 2010). So that the attitude of responsibility grows to preserve the environment. Encourage individuals and communities to explore environmental issues, engage in problem solving, and take a role to improve the environment (Agency, 2019).

The transformation of environmental education can be done through traditional games. Traditional games have a moral message and have educational value for the community, including for early childhood. Some of the advantages of traditional games for early childhood: first, traditional games have natural features and are far from contaminating technology and materials that endanger children's health (Prévot *et al.*, 2018). Second, traditional games can be a means of transforming environmental education and social education for children (Gelisli & Yazici, 2015; Dinanthompson *et al.*, 2014). Traditional games fall into the outdoor category. Outdoor games have the function of enriching, stimulating, and offering a challenging playing experience to meet children's development needs (Walsh, 2016).

Traditional games have original regional characteristics in accordance with the cultural traditions of the local community. Traditional games in their implementation are always related to the natural environment, so they have positive benefits and help children to get to know and socialize with the surrounding environment disekitar (Bento & Dias, 2017). Traditional games are ethnopedagogy for children. Ethnopedagogy is the process of transforming education based on local wisdom of an ethnicity.

So that learning-based ethopedagogical skills are required to be able to develop educational concepts that fulfill aspects (a) of philosophical basis; (b) socio-cultural basis; (c) psychological foundations (Selasih & Sudarsana, 2018). These three aspects are closely related to the transformation of natural and cultural education to children. The results of the study show that early childhood education integrated with environmental education can help improve child development holistically (Elena Nitecki, 2016). Scientists such as Rousseau, Locke, Schelling, Froebel, Basedow and Pestalozzi have emphasized that children should often be given the opportunity to be in nature. Direct and sustained experience with a closer nature is an important source of children's physical, emotional and intellectual development. Being close to nature can help improve children's focus and improve cognitive abilities (Yıldırım & Akamca, 2017).

Playing outside and engaging with the natural environment gives children the opportunity to discover their nature as the essence of life (Sınıf *et al.*, 2015). The findings of the study explain that adults must respect and give space for children, to play, imagine, and socialize with their environment. When adults reduce the time and play space for children, it will have implications for damaging the health and happiness of children (Elena Nitecki, 2016).

A study in Australia explains the importance of providing examples and environmental knowledge to children, especially boys, to increase empathy and instill a sense of responsibility for the care and protection of animals (Coorey & Coorey-ewings, 2018). Other research confirms that by giving children the freedom to roam the surroundings can improve higher learning outcomes (Khasanah *et al.*, 2017).

One of the traditional Indonesian games is horse racing. Some research results report that one of the benefits of playing horse can help physical activity to improve morotic, psychological, and social physical well-being for children with special needs (Voznesensky *et al.*, 2016). Another function of the horse racing game is to provide support for animal-based therapeutic interventions (horses) for children with autism spectrum disorder (Borgi *et al.*, 2016). In addition to having benefits for

children's motor development, the traditional game of horse racing conducted by the Dompu tribe is a means of transforming environmental education for early childhood.

The essence of the horse racing game in the Dompu tribe is to teach children early to care for the environment and culture and love the animals (horses) around them. Environmental love education based on traditional horse racing games can be a solution to avoid aggressive behavior and cruelty to animals. The children during their childhood were accustomed to committing acts of violence toward animals, and when they reach adulthood, the same thing could be done to humans (Hensley *et al.*, 2018). Childhood spent outdoors has a positive effect associated with an increase in environmentally responsible behavior at age adults (Evans *et al.*, 2018). The research concluded that there was a significant correlation between the transformation of environmental education with environmental knowledge; environmental knowledge with environmental attitudes; and environmental education and environmental attitudes. Teaching environmental education, enriching understanding, enhancing knowledge of preserving, attitudes, and intentions of the action, as well as promoting the skills to use the strategy of environmental action (Huang, 2018). Early childhood educators consider playing outdoors is the most conducive to achieve educational outcomes, particularly for children the opportunity to play freely (Ernst, 2014).

Horse Racing is a game based on the widespread nature. The existence of traditional horse racing games carried out by the Dompu tribe community can be a means of environmental conservation education. Because during the process of horse racing, children are taught to protect the environment and to be empathetic towards animals (horses) around them. The uniqueness of the horse racing game in the Dompu tribe is to use the services of children as Jockeys or riders with ages ranging from 4 to 8 years. While in other areas, jockey or horse riders are usually teenagers or adults aged 16 years or more. For this reason, it is interesting to do research, which will focus on the theme "Transforming environmental education in early childhood through the game of horse racing in the Dompu tribe, Indonesia".

This research will be divided into several sub-focus, including: (a) the history of the traditional game of horse racing in the Dompu tribe; environmental education values in horse racing games; (c) the process of transforming environmental education in children through horse racing. This study aims to explore and gain deep understanding of the transformation process of environmental education in early childhood through the traditional game of horse racing in Dompu, Indonesia.

METHODS

This study uses a qualitative approach with ethnographic methods. This research was conducted in Dompu, Indonesia which lasted eight months. Data were analyzed using domain analysis techniques, taxonomic analysis, componential analysis and theme analysis. The essence of qualitative research is about merging into an event and trying to understand it well (Tracy, 2013). The research subjects were six young Jockeys aged 4-8 years, and 10 horse owners. Data was collected through questionnaire instruments, observation guide, interviews, documentation and conducting focus group discussions (FGD) with jockeys and horse owners.

The researcher will observe people's activities, physical characteristics of social situations, starting with making extensive descriptive observations. After recording and analyzing the initial data, it will then narrow down the research and start making focused observations. After repeated analyzes and observations, the researcher narrows the investigation, the researcher goes further to make selective and more focused observations. Then make general descriptive observations until the end of the field study (Spradley, 1980).

The researcher described information from jockeys, horse owners and communities involved in horse racing activities. The researcher will merge with the community during horse racing activities, in the Jockey's house and during training in the rice fields and rivers, and understand them carefully. The researcher interviewed horse owners, young jockey parents, government and community elements. Data is documented through recordings, notes and videos of all horse racing

game activities. The researcher was directly involved in all activities of the local community. Observing the activities of children while practicing on the river, in the rice fields, on the seafront until they enter the racetrack, then when riding a horse.

RESULTS AND DISCUSSION

The Dompu community on its way through a series of phases of civilization that were quite challenging and tiring, faced Dutch, Portuguese and Japanese colonization. Wars and physical and psychological violence and unsafe conditions are often faced. This situation affects the game model that contains a load of courage, dexterity, physical strength, and also competitive. In the phase of agrarian civilization, the majority of the Dompu tribe were farming, many of which were colored by mysticism as an influence on the beliefs and beliefs that developed in the Dompu community. So they must submit to the signs of nature. Some games have a background in the life of farmers, in which there is a certain meaning to maintain and

maintain harmony with nature. One that still survives today is the horse racing game.

History of Horse Racing

The tradition of horse racing is usually done by the Dompu tribe. There are differences in horse racing activities held at the international Olympic event with the tradition of horse racing in Dompu. At International, only the jockeys will be given score, while in Dompu both horse and the jockey will be given score. The horse racing is considered an environmentally friendly game. Children who play this game will be taught about the importance of loving animals such as horses and also the obligation to maintain environmental ecosystems. Damaging the environment is the same as violating the provisions of their ancestors.

Initially this game was carried out in the rice fields area, because in ancient times horses were used to transport crops to be brought to the village or brought to the city. The following table illustrates the function of horses based on historical periods of the Dompu people in Indonesia

Table 1. The function of horses in each period of Dompu community civilization

No	Historical Period	Horse Function
1	Dompu's royal period	Horses are a royal vehicle and are also used as vehicles to transport agricultural products from fields and fields. Horses are also used as war vehicles
2	Dompu Sultanate	Horses are used as vehicles for the parties of the struggle and the general public
3	Modern Era	Horses are used as a means of people's entertainment and media for the transformation of environmental education in early childhood

In traditional horse racing games, one of the decisive components is the Jockey. As great as any type and stature of a horse that will be contested, then it will not be able to become a champion if the seat does not have skills. The unique portrait of horse racing games in the Dompu tribe is children who become jockeys or riders, whose ages range from 5 to 11 years. To become young jockeys they are born from various family backgrounds: for example horse care children, genetic factors, and relationships with

their friends, for example Pepi (6) a child from the village of Monta Woja District is one of the little jockeys. He is a child who does not have a background as a Jockey. His father was a farmer, while his mother was an Indonesian Workers in Malaysia. But on the racetrack Pepi has the ability to control the horse well. Likewise, the 7-year-old Arya has a skill that is quite capable of riding a horse. The following figure describes the process of enviromental education transformation for early childhood through horse racing games of the Dompu tribe.

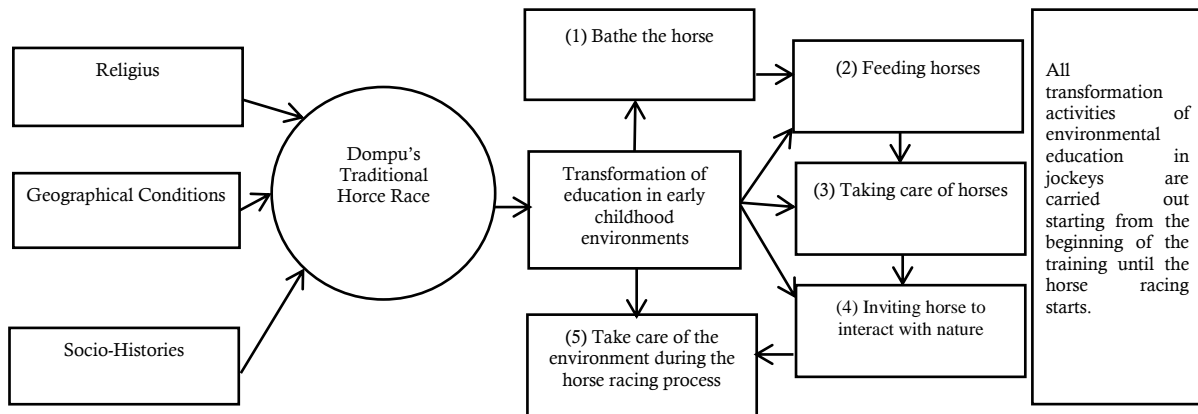


Figure 1. The process of transforming environmental education into jockeys through horse racing

Some horse racing game equipment includes: whip as an agitation tool made of Rattan and wrapped with nylon with a size around a meter. When riding a horse, the jockey holds two whips each in the right and left hands. Next is a helmet as a head safety device. Next, the field or circuit, which is an area of about 5 hectares, is an official competition venue. In addition there is a star box which is a special room for releasing horses.

Horse Racing Phase

The activity phase in the horse racing, among others, is to finalizes motoric abilities, emotional balance of the jockey and introduction to jockeys about the importance of maintaining environmental balance during the horse racing process. This phase is carried out at the edge of the fields, sea and river. It is in this condition that children are taught the importance of protecting the environment. By preserving nature, that means participating in avoiding disasters when horse racing activities take place. The second phase, the jockey enters training at the official arena or circuit. The third phase, enters the start box where the horse is released to start running. In this phase the courage, thoroughness and foresight of the little jockey are very necessary and determine whether the horse he rides is a champion or not. Phase four, determining who won. The last seconds before the finish, the jockey will fight hard to race the horse to keep running fast. So when the horse enters the finish line, the jockey must be able to

stop the horse stably, because in this phase it is very prone to fall, and because the horse is

exhausted from running, affecting the condition of the horse, so that the Jockey needs to be cautious. This figure describes the factor that serves as the early appearance of the horse racing games in the Dompu tribe.

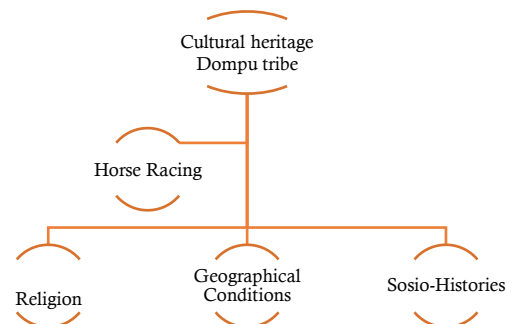


Figure 2. Components that affect the tradition of horse racing in the Dompu tribe.

Environmental Education

Horse racing games besides being a means of entertainment for the people of the Dompu tribe, also have the value of environmental education which is transformed to the jockey. Children acquire the skills, abilities and understanding of their culture and environment (Batsaikhan & Kaye, 2017). This game interacts more with nature. This is consistent with research, that children naturally want to know about their world and enjoy exploring their environment (Bullock, 1994).

This is consistent with the results of research that early childhood education, environmental education, and social-emotional support help improve children's development in a holistic manner. Learning through nature opens up valuable lenses for social and emotional development and learns about caring for the environment (Carte, 2016). As long as the game starts from the beginning to the end, children are taught to protect the environment. For example, it is prohibited to hurt animals. The underlying belief that children's contact with nature is important provides a strong basis for building sustainable relationships between humans and nature (Davis, 1998). The results of the study show the importance of integrating learning in environmental education into various children's activities (Güner, 2013).

The existence of traditional horse racing games is one of the means of cultural conservation in the care of the Dompur community. Cultural conservation as well as traditional horse racing games is important because it deals with environmental preservation, learning and the development of eternal education. The conservation strategy will encourage the development of a strong community-based culture of tourism to deal with the pace of globalization. This effort provides a coherent and integrated approach to cultural conservation efforts, so that people and tourists still see it in the future. The following table that illustrates the transformation process of the horse racing games for early childhood of the Dompur tribe.

Table 2. Transformation of environmental education through traditional horse racing

NO	Description of activities	Aspects of Introduction to Education	Material	Indicator
1.	The trainer / friend explains about the Dompur Tribe Horse Race	Cultural history of the Dompur tribe	History of horse racing games in the Dompur tribe community	Children / jockeys understand the history of horse racing
2.	Explain to children about the importance of cultural conservation	Environmental conservation education based on local culture of horse racing	The importance of environmental conservation is an effort to preserve the environment based on the local culture of horse racing	Children can find out about how to care for their environment based on the local culture of horse racing
3.	Explain about cultural environment-based tourism	Environmentally friendly attitude based on horse racing culture	The importance of the introduction of cultural environment-based tourism literacy, to face the digital era.	Children know about the benefits of eco-friendly tourism.

Protecting Animals

In the tradition of horse racing, children are accustomed to love and protect animals, such as horses. Children are not allowed to hurt animals, they are taught to love all forms of animals. Caring for animals gives children the opportunity to observe, interact, and learn about animals. This can be a valuable part of children's education and care experiences, enrich their learning about nature, ecology (National, & Standard, 2016). In the belief of the Dompu community, hurting animals can bring disaster and keep away from sustenance. For that children must be accustomed to love animals

and the environment. How to transform the value of environmental love is done by habituation, when horse racing activities take place. This is in line with research conducted on elementary school students in Aceh, that the implementation of environmental education can be realized through habituation (Zaenuri et al., 2017). For them, caring for horses is as important as taking care of their children and wives. When providing horse food, children must treat it with full friendliness and affection.

Introduction to Early Literacy

Aside from being a means of environmental education for children, the Horse Racing can help develop children's cognitive abilities. Introducing animals to children can help children gain valuable practice in the introduction of literacy skills and can provide children with authentic and meaningful experiences (Delisle L. F. and E, 2011). As long as the game process takes place from the beginning to the end requires a high level of thinking skills to be able to focus when on the task. The ability to think high and focus is one of the keys to victory in a race. In addition, the focus also helps physical and psychological stability, so it is not easy to shake and fall from a riding horse. Early childhood education. The main goal of early childhood education is to support all areas of child

development including social-emotional, physical, cognitive, and language development (Carte, 2016).

Traditional games can be a means of developing cultural literacy for children, from the age of Early Childhood Education to the College level. Cultural literacy is the ability to understand and behave towards culture as the identity of the nation. Cultural literacy is an important thing to master in the 21st century. Indonesia has a variety of ethnic groups, languages, customs, customs, beliefs and social strata. As part of the world, Indonesia is also involved in the global development and change arena. Therefore, the ability to accept and adapt, and behave wisely over this diversity becomes absolute. Horse racing games can be applied to formal educational institutions, especially early childhood. The results of the study show that curriculum development by

CONCLUSION

Referring to the discussion section, the process of transforming environmental education in early childhood through horse racing games can be done between stages; first, when children (jockeys) give horse food. At that time it became a means to foster caring for animals (horses). Second, during training on horse riding, jockeys are taught not to damage the surrounding environment, to utilize plants as needed, and this becomes a means of internalizing nature conservation education. Third, riding horses can be physically and psychologically healthy, and can even cure children who suffer from down syndrome and autism. Fourth, when children ride horses, it becomes a means of transforming eco-friendly tourism education. And finally, hopefully this research can provide benefits for early childhood education practitioners and academics who want to explore the values of the traditional game of the Dompu tribe. Also it can be useful to add knowledge to stakeholders to be used as a reference in developing policies for early childhood education.

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REFERENCES

- Agency, U. S. E. P. (2019). What is Environmental Education? Retrieved from <https://www.epa.gov/education/what-environmental-education>
- Batsaikhan, J., & Kaye, C. (2017). Horse Racing With Sheep Ankle Bones: The Play of Nomadic Children in Mongolia. *Journal of Childhood Studies*, 42(3), 40.
- Bento, G., & Dias, G. (2017). The importance of outdoor play for young children's healthy development. *Porto Biomedical Journal*, 2(5), 157–160.
- Borgi, M., Loliva, D., Cerino, S., Chiarotti, F., Venerosi, A., Bramini, M., ... Cirulli, F. (2016). Effectiveness of a Standardized Equine-Assisted Therapy Program for Children with Autism Spectrum Disorder. *Journal of Autism and Developmental Disorders*, 46(1), 1–9.
- Bullock, J. R. (1994). Helping children value and appreciate nature. *Day Care & Early Education*, 21(4), 4–8.
- Carte, D. (2016). A Nature-Based Social-Emotional Approach to Supporting Young Children's Holistic Development in Classrooms With and Without Walls: The Social-Emotional and Environmental Education Development (SEED) Framework. *International Journal of Early Childhood*, 2(1), 140.
- Coorey, L., & Coorey-ewings, C. (2018). Animal Victims of Domestic and Family Violence: Raising Youth Awareness Animal Victims of Domestic and Family Violence: Raising Youth, 7(1), 1–40.
- Davis, J. (1998). Environmental Education and the Future. *Education and the Environment*, 141–154.
- Delisle, L. F. and E. (2011). Animal-Assisted Literacy: A Supportive Environment for Constrained and Unconstrained Learnin.
- Dinanthompson, M., Meldrum, K., & Sellwood, J. (2014). "... it is not just a game ": Connecting with Culture through Traditional Indigenous Games, 2(11), 1015–1022.
- Elena Nitecki, M.-H. C. (2016). Play as Place: A Safe Space for Young Children to Learn about the World. *International Journal of Early Childhood Environmental Education*, 3(1), 1–103.
- Ernst, J. (2014). Early childhood educators' preferences and perceptions regarding outdoor settings as learning environments. *International Journal of Early Childhood Environmental Education*, 2(1), 97–125.
- Evans, G. W., Otto, S., & Kaiser, F. G. (2018). Childhood Origins of Young Adult Environmental Behavior. *Psychological Science*, 29(5), 679–687. Gelisli, Y., &
- Yazici, E. (2015). A Study into Traditional Child Games Played in Konya Region in Terms of Development Fields of Children. *Procedia - Social and Behavioral Sciences*, 197(February), 1859–1865. Güner, Z. (2013). Environmental Education in Early Childhood Teacher, (June).
- Hensley, C., Browne, J. A., & Trentham, C. E. (2018). Exploring the social and emotional context of childhood animal cruelty and its potential link to adult human violence. *Psychology, Crime and Law*, 24(5), 489–499.
- Huang, S. P. (2018). Effects of using artificial intelligence teaching system for environmental education on environmental knowledge and attitude. *Eurasia Journal of Mathematics, Science and Technology Education*, 14(7), 3277–3284.
- Johnston, J. (2009). Transformative

- Environmental Education: Stepping Outside the Curriculum Box. *Canadian Journal of Environ Mental Education (CJEE)*, 14(0), 149–157.
- Khasanah, A. N., Sajidan, S., & Widoretno, S. (2017). Effectiveness of critical thinking indicator-based module in empowering student's learning outcome in respiratory system study material. *Jurnal Pendidikan IPA Indonesia*, 6(1), 187–195.
- Microsoft. (2015). School Transformation Process A guide to formulating and implementing a vision for change.
- NAAEE. (2010). Early Childhood EnvironmEntal EduCation Programs: Guidelines for excellence. NAAEE Publications and Membership Office.
- Prévot, A. C., Clayton, S., & Mathevet, R. (2018). The relationship of childhood upbringing and university degree program to environmental identity: Experience in nature matters. *Environmental Education Research*, 24(2), 263–279.
- Sarah J. Tracy. (2013). *Qualitative research Methods; Collecting Evidence, Crafting Analysis, Communicating Impact*. Chichester West Sussex: A John Wiley & Sons, Ltd., Publication,.
- Selasih, N. N., & Sudarsana, I. K. (2018). Education Based on Ethnopedagogy in Maintaining and Conserving the Local Wisdom: A Literature Study. *Jurnal Ilmiah Peuradeun*, 6(2), 293.
- Sınıf, R., Oyunun, D., & Eğitimine, Ç. (2015). Safety and Risk : Benefits of Outdoor Play For Child Education, 6(3), 50–62.
- Spradley, J. P. (1980). *Participant observation*. Holt , Rinehar t an d Winston.
- Sukri, A., Rizka, M. A., Sakti, H. G., Maududy, K. U., & Hadiprayitno, G. (2018). Designing an Integrated Curriculum Based on Local Primacy and Social Reconstruction Perspectives of West Nusa Tenggara, Indonesia. *Jurnal Pendidikan IPA Indonesia*, 7(4), 467–475.
- To, L., National, T. H. E., & Standard, Q. (2016). Keeping Pets and Animals In Education And Having A Pet At Your For Learning To Be Human : Some Propose That It Is Only.
- Voznesensky, S., Rivera-Quinatoa, J. A., Bonilla-Yacelga, K. A., & Cedeño-Zamora, M. N. (2016). Corrigendum to “Do Equine-assisted Physical Activities Help to Develop Gross Motor Skills in Children with the Down Syndrome? Short-term Results.” *Procedia - Social and Behavioral Sciences*, 233(May), 508.
- Walsh, P. (2016). Early Childhood Playgrounds, Planning an outside learning environment.
- Yıldırım, G., & Akamca, G. Ö. (2017). The effect of outdoor learning activities on the development of preschool children. *South African Journal of Education*, 37(2), 1–10. 8
- Zaenuri, Sudarmin, Utomo, Y., & Juul, E. (2017). Habituation model of implementing environmental education in elementary school. *Jurnal Pendidikan IPA Indonesia*, 6(2), 206–212.