

## **Pedagogics Study of Nature School Theory**

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### **Abstract**

*Theoretical and practice foundation in Nature School have their own differences and uniqueness compared to school in general. Nature School has e a unique paradigm, namely using the nature potential around the school as a place or space and the implementation of educational activities media by presenting a comfortable, pleasant and harmonious educational environment for students. This article aims to describe and analyze how theoretical pedagogics point of view are related to the aims of education, educators, students, tools of education, implementation time and nature school environment in Indonesia. Students who are deemed to have the potential and interest of each, directing educators in this nature school to generalize students, so that learning is made flexible that allows students to experiment, express, explore and interact directly with nature so as to provide students with opportunities to achieve optimal educational aims.*

**Keywords :** *Pedagogics theoretical, Nature School.*

### **Intorduction**

There are various demands of the industrial revolution 4.0 and society 5.0 this time to be responded to appropriately, especially related to how the concept of education to deal with these demands. Education is not an unfamiliar word, because education is one of the most important parts as a provision for human life now and in the future. Muhardi (2004, p.480) said that education is the main key to improving the quality of a nation. Through education, humans can improve the quality of themselves to be able to face various problems and changing times that are very rapidly developing. One of them is education, this is emphasized by Calam and Qurniati (2016, p.54), it is said that schools as one of the educational institution that is given the task of realizing national educational aims, must carry out their roles properly. Thus, schools must have a strong educational concept, so that the aims of education can be optimally achieved.

With the appearance of Sekolah Alam as one school that has a different and unique concept as innovation compared to formal schools in general. This was confirmed also by Qibtiah, et al (2018, p. 628) that nature schools are different and unique schools concepts compared to conventional schools, wherein the nature school there are visual, spatial, kinesthetic and naturalist element. In short, the nature school makes it natural as a place or space and learning media for educational activities. The authorities to examine how to concept of education in nature schools is seen from a theoretical pedagogics point of view.

### ***General Concepts of Pedagogics***

For an educator or teacher, it is not something new if you hear the word pedagogics. Pedagogics which is part of education, it should be understood in depth. According to Langeveld (1980, p.3) is pedagogics or the science of education is are focused on thought or contemplation about education. While pedagogy means education that focuses more on the practice of education. There are two terms that resemble, they are pedagogics and pedagogy. According to Djajadisastra (1990, p.3) that pedagogics are related to theoretical teaching, and whereas pedagogy means education that is practical or activity.

Therefore, it can be understood that pedagogics can be theoretical and practical. Pedagogics is the science of educating that the concepts related to the nature of human beings, students, and educational objectives to the educational process scientifically, besides that pedagogics is also practical because it leads to the way to act. According to Dopp-Vowald (in Brezinka, 1992, p. 216) is pedagogics is the traditional designation for a practical theory of education, for a practically oriented theory of the art of education which seeks to directly contribute to action. Action is an effort in education, confirmed by Hendrowibowo (1994, p. 128) that pedagogics is seen as the science of practical education. Practical pedagogics is pedagogics which is aimed at the way of acting, moving, in a situation that is directed at the realization of the ideals that have been arranged in a practical pedagogics. It is related to how adults are be educators act towards minors or students. Then it can be understood that theoretical pedagogics is related to descriptive concepts in charge of compiling to the science of educating and

practices related to practical practices that lead to an act of educating that occurs in the educational environment.

Related to the previous description, in pedagogics there are educational boundaries. Theoretical pedagogics boundaries according to Sadulloh (2011, p. 71) aims of education, educators, students, tools of education, implementation time and nature school environment. In addition, practical pedagogics boundaries relate to : 1). School environment: a. school administration, b. methodical, c. curriculum, 2). Family education, 3). Community education (Charles, in Hartati, 2010, p. 12). In the next discussion, will explain how the theoretical pedagogics studies related to the Nature School which is currently starting to bloom and are interested in the community environment.

### ***General Concept of Nature School (Sekolah Alam)***

At first, nature school developed in the 1950s in Scandinavia, as according to Andrachuk, Heather and et al (2014, p. 12) Forest school starting in Denmark and Sweden, moving through Scandinavia, onto Europe, China, Australia, New Zealand, the United States and now Canada. This nature school has long appeared in some countries with different nicknames of schools. Although forest school is called by many different names e.g., nature kindergarten, outdoor school, wal kindergarten, rain or shine school, bush school (Andrachuk, Heather and et al, 2014, p. 12). Beside that, according to Marioara and et al (2016, p. 197) the number of these forests schools, called abroad Forest school, forêts pédagogique, bosquescuela, ecoécole reached several thousand and continues to grow. Andrachuk et al named it Forest and Nature School (FNS). In Indonesia, it is called Sekolah Alam (Nature School). This nature school began to develop and was initiated by Lendo Novo in 1998 and the first nature school was located in Ciganjur, South Jakarta.

To be able to develop and organize learning that can construct cognitive, affective and psychomotor learners, there must be innovations that are developed related to the concept of implementing education, one of which is by learning outside the classroom as happened in nature school. As reported from (Dillon et al. 2005, p. 22) suggest that learning outdoors can have a range of impacts including cognitive impacts, affective, interpersonal/social and physical/behavioral impacts.

Learning outdoors in nature is a very different experience from being indoors in a classroom environment.

“Nature”, in the word nature school has several meanings, as meant by Suherdi & Murdiani (2012, p. 21) the first meaning is experience, the second meaning is the universe, beings and everything created by God. That is, the universe is made up of earth and sky or something outside of God is the universe. So, forest and nature school or what is commonly referred to as forest school in several western states, and in Indonesia it is known as nature school that has different place backgrounds, adapted to the potential of the region or the setting in which a school is used. The background used can be in the form of forest, coastal areas, rice fields, gardens, and so on. In addition, in the educational point of view of the united kingdom, a forest school is an educational approach to learning facilitated through outdoor experiences than commence in the school grounds and then progress to local bushland or natural parkland settings (Knight, in Cumming & Nash, 2015, p. 297). So that nature schools do not always have the background of the forest.

Nature school is one of alternative education with the concept of active and fun learning by using nature as a medium for learning (Efriyani Djuwita in Santoso, 2010, p. 9). Nature schools are sometimes also referred to as alternative schools because they have a unique and different innovation in the implementation of learning, compared to formal schools in general. As Cumming & Nash (2015, p. 298) the forest school approach offers an alternative way of delivering the curriculum and embedding outdoor learning pedagogies into the school’s education framework as a whole. By implementing a way of educating outside space, providing renewal of educational process activities. In addition, nature schools have freed the creative desire of students, so that students will find their own talents and more abilities (Santoso, 2010, p. 12). This is what distinguishes nature schools from other formal schools. Students are given the opportunity to construct their knowledge through learning experiences in the natural environment, from the habits of learner’s habits of learning with nature can form experiences either directly or indirectly.

So it can conclude that the principle of nature schools is an educational institution based on the natural environment which is used as a place of learning to provide learning experiences.

### ***Characteristics of Nature School***

Nature school in general, especially in western states are identified or have characteristics as described by Brien & Murray (2006, p. 4),

- a) The use of a woodland setting, b) a high ratio of adults to pupils, c) learning linked to the National Curriculum and Foundation Stage objectives, d) the freedom to explore using multiple senses, e) regular contact for the children with forest school over a significant period of time.

In western states, nature school almost all use the forest as a place and medium for learning. With a curriculum that is always integrated between the national curriculum and the nature school curriculum. In addition, the characteristic applicable in nature school in Indonesia in general according to Santoso (2010, p. 15) is as follows,

- a. Nature schools provide students with creative freedom so they can discover the strengths they have.
- b. The concept of learning while playing tends to make school understanding, not a burden, but it is a fun thing and its orientation focuses on the strengths that students have with their search methods are not standard and relative, enjoyable and can be accepted by them through forms of play.
- c. Nature school educators, teachers of facilitators have good character, creative and able to provide developmental stimulation or become a good partner for their development students.
- d. Applied learning methodologies tend to lead to the achievement of good thinking logic and innovation in the form of real practice.
- e. In the nature school, a good library and reference books from various sources that can be accounted for to support the practice of the action learning method are also prepared.
- f. In nature school, not only students learn but also teachers are required to continue learning because basically all living things are obliged to learn.
- g. Nature school is equipped with a variety of trees that grow around it, such as a living pharmacy area, coconut trees, banana trees, cassava, rice, guava, rambutan, mango and others.
- h. Learning materials adapted to curriculum competencies in a certain timeframe and are carefully programmed.
- i. To measure the extent to which students motivation is publicly accepted, an evaluation is usually held once a semester.

It can be understood, that nature schools are characterized by schools that provide opportunities to develop student's abilities tailored to the interests of

students through learning with nature that emphasizes the experience of students. From various descriptions related to the characteristics of these nature schools, with the development of nature schools that try to develop and make different learning. In general, can provide advantages or benefits the formation of a nature school of forest and nature school (FNS) for students. They are

- 1). Improved confidence, social skills, communication, motivation, and concentration,
- 2). Improved physical stamina, fine and gross motor skills,
- 3). Positive identity formation for individuals and communities,
- 4). Environmentally sustainable behaviors and ecological literacy,
- 5). Increased knowledge of the environment, increased frequency of visiting nature within families,
- 6). Healthy and safe risk-taking,
- 7). Improved creativity and resilience,
- 8). Improved academic achievement and self-regulation,
- 9). Reduced stress and increased patience, self-discipline, capacity for attention, and recovery from mental fatigue,
- 10). Improved higher level cognitive skills, and
- 11). Male inclusion in education (In Andrachuk, 2014, p. 16)

### ***Theoretical Pedagogics Study of Nature School***

#### ***Educational Aims***

As the theories above, explained by the establishment of this nature school, not only to provide alternative choices for parents, but also like Suhendi & Murdiani (2012, p. 8) said that in Indonesia there are intrinsic and totalise aims of nature school education, they are righteous, have good character, love the environment, have a leadership spirit, do business and are smart in their respective fields with sharpened logic. From this purpose, it was illustrated that the educational aims helped students to achieve their adult development. In addition, the existence of this nature school aims as Santosa (2010, p. 18) say that the existence of nature school is basically in the purpose of the curriculum including the creation of good morals, mastery of science and adequate understanding of leadership understanding. Perdana (2004, p. 22) says that nature school are developed to build the ability of basic abilities in students who make pro-active and adaptive pro-environmental change.

Reiterated as according to Waite et al if forest and nature school have two purposes, on the one hand, FS is a way to increase children's connections with nature, within the cultural and social context of an ever-urbanized and indoor society (Davis and Waite 2005, in Barrable & Arvanitis, 2018) and aims to increase

young children's motivation to learn (Kenny 2010; Waite et al. 2016, in Barrable & Arvanitis, 2019, p. 8), mainly by stimulating their interests. Then it can be understood this nature school aims at character building, ability development, and increasing learning motivation for students. In short, the aims of this nature school encompasses the cognitive, affective, and psychomotor domains holistically.

With this nature school, students and nature are interpreted through the learning process. So that the school is not synonymous with monotonous learning. With learning carried out in nature, it will provide a broad experience and have an impact on the development of imaginative, creativity, and responsibilities of students to individuals and social. Similarly, the woods can inspire them to use their new learning back in the classroom having experimented with different ways of learning outside the classroom (Knight, 2016, p. 298). Learning with nature is believed to inspire students and educators to develop and create different learning in the classroom, by stimulating students to learn to get out of the usual comfort zones, by getting out of their zones in stimulating students to learn to overcome new challenges and develop skills to overcome it.

Through direct learning with the nature environment that can be a form of forest, gardens, rice fields, has one of the principles of this nature school which is to provide opportunities for students to develop their potential according to their interests. So that students have life experiences that they feel themselves. In essence, Forest and Nature School (FNS) is founded on creative and solid learning principles, aimed at motivating both adults and children to develop a more sustainable future and enhancing academic performance at the same time (Blackwell, 2015, p. 1). Thus, this nature school can help the students to develop towards maturity with optimal life experiences.

### ***Educator in Nature School***

An educational activity takes place in a school environment it can not just happen if there is no one who is said to be an adult or who is more commonly known as an educator or teacher. Naturally, the educator or teacher is an mature. It is said to be a mature if the human being can determine himself independently and responsibility (Langeveld, 1980, p. 36-37). In short, mature teachers are teachers

who have strong integrity, independence, good social and morality that can be emulated.

Being a teacher is not an easy job. Because a teacher must be able to be a role model for students in any regard. The following is a description of a true educator or teacher from the viewpoint of nature school (Suhendi & Murdiani, 2012, p. 79-86) are,

- 1). Love students and become the second parent at school, 2). To become an exemplary outside and inside everywhere and anytime (personality is mature and good, has faith and moral), 3). It is not enough just to be smart, but also to be sincere in working, 4). Able to b himself the most beautiful, 5). Positioning himself as a facilitator, a manager in his class, a motivator, entrepreneur, designer, entertainer and researcher, 6). Know, understand, and practice the religion well, and 7). Good communicator in relation to students, parents, and the community.

A Teacher who has a role model as a substitute for parents at the school environment must be able to show a professional personality. That educating must be sincere, be an example, be able to interact well with all levels of society and have a high intellectual and spiritual understanding that can help students to achieve their maturity.

### ***Students***

Another factors that determine the implementation of the educational activity process are the presence of students. Nature schools view that students are born with the potential and uniqueness of each. So as educators must be able to help develop and lead it, not to force in to be something. Confirmed by Suhendi & Murdiani (2012, p. 7) that all students are champions in their respective fields and in their respective ways. In addition, students are freed to be themselves and develop their potential to grow into human beings who have characters insightful created by humans to become leaders according to the nature created by humans to become on this earth (khalifah fil al-ard) (Rohinah, 2012, p. 285). This means that student has the potential and interests of each, so that to help them achieve their maturity, the concept of education developed must be able to accommodate the uniqueness, potential and interest of students.



### ***Educational Tools***

The intended educational tool is an act that was created intentionally by a mature as a teacher and channeled to students rather can be achieved certain educational aims (Djajadisastra, 1990, p. 32). It can be concluded that the meaning of the tool is an act, action or activity that is made as an effort to achieve educational aims. Suhendi & Murdiani (2012, p. 6) argue that educational tools that can help in achieving educational aims are learning methods or strategies that play an important role in this regard.

An action or activity can not just be implemented. There is a strategy or method as an intermediary. The strategy or method consists of : 1) exemplary strategies or methods, 2) compassionate strategies or methods, 3) appropriate strategies or methods, consisting of learning by doing, project-based, brain-based teaching and learning (multiple intelligence, cooperative learning, collaborative learning, contextual teaching and learning). The strategies or methods of the three terms are often used as learning strategies in nature school.

### ***Execution Time***

This implementation time is related to how long the educational process is carried out. Preliminary education part of the initial steps taken by educators who usually take the form of activities or habituation measures. After that, it will enter the actual implementation of education where the authority relationship between the educators and student begins to form, where the students have begun to have an attitude towards their decision, no longer imitating. Formally, the implementation of education time in the constitution number 17 of 2010 concerning the management and implementation of education article 68 which reads elementary school or other forms of equal consists of six grade levels. Namely class I, class II, class III, class IV, class V, and class VI. In general, the implementation of education at the primary school level lasts for six years with details of the stages as described above.

### ***Environment***

In theoretical pedagogics studies, there are several environmental boundaries, they are the nature environment, cultural environment, social environment and spiritual environment (Sadulloh, 2011, p. 94). The nature

environment is everything that exists around the founding of the school. Mostly, in Indonesia nature schools stand in environments such as gardening and ricefields. While in the western part of the country, it is the forest that is widely used as a place for the establishment of the nature school or what is called forest school. There is also a nature reserve created near the beach for nature school in Australia. As said by Cumming & Nash (2015, p. 298) it has a natural bushland reserve connecting the housing area to the beach and is located two kilometers from the coast.

Emphasized as “nature” referred to by Larimore (2014, p. 34) nature is the central organizing concept of the program. That is, nature is the integrating thread that intentionally ties together the preschool’s philosophy, methodologies, classroom design, outdoor spaces and public identity. As long as nature is made the main concept that becomes the intermediary that ties with the process of educational activities.

Cultural environment is related to the environment consisting of science, technology, customs, language and local arts (Sadulloh, 2011, p. 95). In general, science in Indonesia nature school is adjusted to what has been established by the government and integrated with a nature school curriculum that refers to the potential places where the nature school is located, whereas language, customs, and art will be influenced by their respective regions. Respectively, because Indonesia is a country that is like it is traditional diversity. For example, if the nature school is established in the city of Bandung, the regional language used is Sundanese, arts and custom can be in the form of pencak silat and jaipong dance which are usually implemented in school extra curriculum.

Social environment, nature schools are generally established in locations that have the potential for a nature environment in the community. So students are accustomed to socializing with the community, then educational and educational staff offices that are not far from the reach of students will make more intense interaction and closeness formed. As according to Chori (2017, p. 96) that with this social environment, students learn to interact and socialize with others, so they will be able to grow their social intelligence. About the spiritual environment, the environment associated with beliefs professed by the family, the surrounding community and ideas that arise in the community where they live (Sadulloh, 2011,

p. 95). Of the overall nature, cultural, social and spiritual environment, the nature is certainly differ according to the potential of the region and the nature environment in which the school was founded.

### **Conclusion**

This article shows or illustrates that the concept of nature school education that makes nature as a place or space for learning, learning media, and learning tools that lead to studies from a pedagogics point of view, which consists of educational aims. Where nature can help the development of cognitive, affective, and psychomotor learners. Educators must be true educators. Learners who are seen to have the potential and interest of each, so as not to generalize which will impose the will on students in the end. Educational tools that consist of strategies or methods that teachers do are based teaching and learning. Implementation time of education carried out for six years for elementary school level without the term students do not move up. And educational environment consisting of nature, cultural. Social and spiritual environments which in essence adapt tp the place where the nature school is located.

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