

IMPLEMENTATION OF ENVIRONMENTAL EDUCATION IN THE NATURAL SCHOOL CURRICULUM

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ABSTRACT

Environmental education should be given to children from an early age and ideally given education in the form of direct experience in contact with nature so that direct experience can shape behavior, values, and habits to respect the environment. This study aims to describe the implementation of environmental education in an integrative learning model in natural schools. This research was conducted at the high school of the Indonesian Nature School, Cipedak, South Jakarta. The method used is a qualitative approach. The results of the study show that the Indonesian Natural School implements the integration of environmental education in Project Based Learning with the exemplary method as the first and foremost. With the principles of the Seven Green Principles of SAI, environmental education is part of the moral curriculum as the foundation for other curricula translated in the form of rules, building concepts, to activities that are combined holistically.

Pendidikan lingkungan hidup harus diberikan sejak dini kepada anak-anak dan idealnya diberikan pendidikan berupa pengalaman langsung yang bersentuhan dengan alam sehingga pengalaman tersebut dapat membentuk perilaku, nilai dan kebiasaan untuk menghargai lingkungan. Penelitian ini bertujuan untuk menggambarkan implementasi pendidikan lingkungan yang pada model pembelajaran integratif di sekolah alam. Penelitian ini dilakukan di sekolah lanjutan Sekolah Alam Indonesia, Cipedak, Jakarta Selatan. Metode yang digunakan adalah pendekatan kualitatif. Hasil penelitian menunjukkan sekolah alam Indonesia menerapkan integrasi pendidikan lingkungan pada Project Based Learning dengan metode keteladanan sebagai yang pertama dan utama. Menggunakan prinsip Seven Green Principles of SAI, Pendidikan Lingkungan merupakan bagian dari kurikulum akhlak sebagai pondasi kurikulum lainnya yang diterjemahkan kedalam bentuk aturan, konsep bangunan, hingga kegiatan yang digabungkan secara holistic.

Introduction

Environmental education is a process that aims to shape behavior, values and habits to respect the environment. Environmental education should be given to children from an early age. Environmental education must be based on direct experience in contact with the environment so that it is hoped that this direct experience can shape behavior, values and habits to respect the environment. However, considering the current state of the education system, which is full of curriculum assignments and a large number of pedagogical competence targets, the cultivation of the environment is minimal.

The challenge of environmental education in schools is to find new concepts so that students can get closer to the environment as early as possible, but seeing the current state of technological development, the portrait of school children is now very limited in contact with nature. Especially in urban areas. Many school children are busy with gadgets and the digital world seems to make their own world. When they rest they are at home watching TV, when they prefer to be at the mall with various games, when they go to school they ride vehicles, when at school they tend to be in class so the children are isolated.

According to Afandi (2013) environmental education is an effort to preserve the environment by teaching in schools formally. Environmental education is not a stand-alone field of study. However, it can be integrated into a field of study at school. Through the integration of environmental education, it will become a forum for the creation of character in the field of study.

Concern for the current condition of students with all their challenges has led to various alternative schools outside the existing formal schools. The school of nature is one of the schools that initiates how schools must be able to change the damage to values that exist in society. The concept of a special curriculum in natural schools equips students to prepare for the future according to their talents and interests. Natural schools are schools that carry out learning based on noble values in the Islamic religion as a blessing for the entire universe.

The concept of learning in nature schools carries nature-based learning, where students follow a program learning process that utilizes nature as a place and medium for learning. It aims to raise self-awareness in preserving the existence of nature. The natural environment is used as a learning medium related to the school environment that motivates students to explore its existence. The concept of nature that is meant narrowly can also be interpreted as learning that occurs naturally and is close to the real reality.

One of the nature schools in DKI Jakarta is the Indonesian Nature School. Based on the observation that the teaching program at Sekolah Alam Indonesia is carried out in an integrative holistic manner, this concept allows students to learn more thoroughly and relate to each other's knowledge. Students' understanding is not compartmentalized in one area but learns something with a transdisciplinary approach. They can learn a knowledge that is very close to everyday life.

School of Nature Indonesia implements well-integrated environmental education in various subjects. Based on observations, students' abilities and awareness will get better. An integrated learning experience that can foster character to love, appreciate, and explore nature wisely. This learning model is expected to foster a caring attitude towards the preservation of nature and sharpen sensitivity to the importance of the environment in human life.

The success of the integration of environmental education is largely determined by many factors. Various components in schools affect how environmental education outcomes are delivered to students. According to Rezkita & Wardani (2018) the integration of environmental education through social studies learning in elementary schools is an alternative to creating green schools. success in the process of integrating environmental education is supported by the involvement of school principals, teachers, and school residents in environmental activities. Natural schools shape the life skills of students, besides the development of innovation in the natural school curriculum is needed to build superior human resources (Rohmah, Alam, & Mulia, 2020). This is in line with Hamadani (2019) which concludes how the natural school system with a well-formed curriculum is able to present an alternative appropriate educational environment for children.

Natural schools form student life skills, besides the development of innovation in the natural school curriculum is needed to build superior human resources (Rohmah et al., 2020). So that innovative learning models need to be developed to find an effective model. Every theory in environmental education must be a fusion of two or more groups of knowledge (Hendri, 2017). Furthermore, the objectives of environmental education must be in line with general educational objectives. It is unrealistic to think of human education in

segments. Another important thing is to help people realize their potential. So that the integrative learning model is very suitable for implementing environmental education.

According to Nadiroh and Hasanah (2018) In every education, each has a different curriculum development. The concept of the Nature School curriculum is designed in such a way that students are close to nature and the teaching is in accordance with child psychology. The concept of curriculum development in each natural school is also different. Students must be taught to actively explore, exploration in question is the ability to explore to build their own knowledge by observing and then finding objects around, asking for the results of these discoveries, collecting information so that students students can solve their own problems (Kustiani, Sasmia, & Risyak, 2015). In exploring, children can use all their senses by touching, feeling, smelling, mixing, comparing what they see.

So that the environment is the most appropriate and very broad means to be explored. Through creative and innovative activities, children will be interested and begin to increase their curiosity. Thus, the environment can provide a good impetus for child development. "contextual plural intelligence" A concept that is open minded towards more creative, active participatory, and meaningful and enjoyable learning needs (Rachmadtullah, Nadiroh, Sumantri, & S, 2018).

From several reference results, there are many findings that natural schools have succeeded in forming positive students' characters in instilling the values of environmental education. Some studies focus on outcomes so findings about how the learning process works also need to be taken into account. Because good results will depend on concepts and ideas that are executed well. Research on the learning process requires in-depth observation and exploration so that it can be used as an evaluation if the target does not meet expectations.

The COVID-19 pandemic is a challenge for natural schools to carry out their educational programs without compromising the noble mission they carry. The existence of social restrictions with distance learning requires the creativity of natural schools to find effective ways to achieve all of their educational goals. This condition raises curiosity about how environmental-based schools and activities outside the classroom must adapt and innovate through distance learning.

Based on the explanation above, this research focuses on describing how aspects of environmental education can be integrated into other scientific fields, it is necessary to know the academic reasons, schemes, arrangements and regarding their relevance in learning. Broadly speaking, some things that want to be described are the curriculum used, the process of implementing environmental education in the curriculum and how the process of planting environmental education during the COVID-19 pandemic.

In general, this study aims to determine the process of implementing an integrative learning model for environmental education in natural schools, and to obtain references on how this process can be developed and adopted by schools or other institutions with the same goal. environmental-based courses in the field of teacher training at universities.

Method

This study uses a qualitative approach. The research was conducted using a case study method and an exploratory process that describes the reality that exists in a community and its dynamics. Through qualitative research, this research intends to describe events or phenomena in accordance with what is happening in the field, and the data generated in the form of written or verbal words. orally from research data sources, documentation, and field observations.

This research was carried out at the Cipedak Indonesia Natural School at the secondary school (SL) level, which is equivalent to a junior high school, which is located at Jalan Pembangunan, Cipedak, Jagakarsa, South Jakarta. It was conducted in October 2020. The objects of study in this study include (1) the education and learning system, which is applied in the Indonesian Nature School, (2) the implementation of environmental education in the integrative learning model. (3) The condition of environmental education during the covid 19 pandemic. The subjects of this study consisted of the Director of Education, Deputy for the Curriculum, and facilitators (teachers).

Data collection techniques used are observation, interviews, and documentation. Data analysis was carried out using interactive model qualitative analysis techniques which included data collection, data reduction, data presentation, and drawing conclusions. The research process is carried out in several stages including (1) preliminary study, (2) literature study or literature study, (3) exploration, (4) checking, (5) data analysis, and (6) reporting.

Results and Discussion

General Description of Indonesian Nature School

Sekolah Alam Indonesia (SAI) was founded in 1998. The philosophical foundation for the establishment of this school is the values embodied in Islamic teachings through the Al-Quran and Hadith. The school of nature has a vision of forming the character of students who are strong in morals, leadership and scientific logic, with the mission of giving birth to a leader who will later become a caliph on earth. This vision and mission is an illustration of how various learning methods and models are applied in natural schools in their activities.

Some of the principles that are firmly adhered to in the management of natural schools are trying to bring fun learning and realizing that each child has their own uniqueness. This principle ultimately provides learning according to the talents and interests of students. This principle is based on the understanding that humans will have great benefits for life if they live and develop according to their talents. If a human being does not live according to talent it can be useful but not optimal.

Nature, which is meant in terms of the natural school, in addition to meaning the natural environment, can also mean everything outside of school life, both inanimate objects and humans. This conception makes the classroom for learning activities not a place that we generally understand, every element of life and space on earth can be a "classroom" for nature schools.

Sekolah Alam Indonesia through a special education system is presented to provide opportunities for students to learn, move, explore, and explore the world more openly. Learners must be opened their horizons so that they have rich knowledge references. Students must coordinate their curiosity so that they become creative human beings and think outside the box.

The results and discussion are as much as 50-75% of the article length. Results are the main part of scientific articles that contain the results of data analysis and results of hypothesis testing. To clarify the results verbally the data can be presented in the form of tables or pictures (graphs are categorized as pictures). The title of the table is placed at the top, composed of three horizontal lines, without vertical lines. The title of the image is written at the bottom. The discussion is the most important part of the entire contents of scientific articles, containing answers to research problems, interpreting findings, integrating asian findings from research into existing knowledge collections, compiling new theories or modifying existing theories.

In the concept of a natural school, there are four main pillars that are able to become real life provisions for children in the concept of learning with nature which is manifested in the form of a natural school. This is because the learning that occurs is carried out through exploration based on empirical experience. The pillars in question include morality, logic of thinking, leadership, and entrepreneurship. This is because learning through exploration is based on empirical experience. The pillars in question include morality, logic of thinking, leadership, and entrepreneurship.

According to the Director of Education for the Indonesian Natural School, Mr. Ludfiono, the focus of the Indonesian Natural School is on character, namely on morals in the family and explaining the position between parents, teachers (facilitators), and students.

"Actually, the responsibility for education lies with parents, schools, facilitators (teachers) are only partners or partners in educating children, so the parents must learn first, the facilitator and then the students".

From the statement above, it can be interpreted that the school is not a workshop or factory, even child care, but an institution that synergizes with parents to realize their future. Because in essence the education of children is the responsibility of the parents, even in the hadith it is stated that mothers are the first madrasa for their children. Parents must be heroes for their children. Because in essence, children in school are only temporary, but children are with their parents throughout their life in a period of supervision. So the family is the first and foremost education system.

Curriculum at the Indonesian Nature School

The curriculum applied at the Indonesian Natural School (SAI) refers to four types of curriculum, namely the morality (character) curriculum, the Logic Curriculum, the Leadership Curriculum and the Business Curriculum. However, the portion given is larger in the moral (character) curriculum. The purpose of education at the Indonesian Nature School is shown in the **Figure 1**.

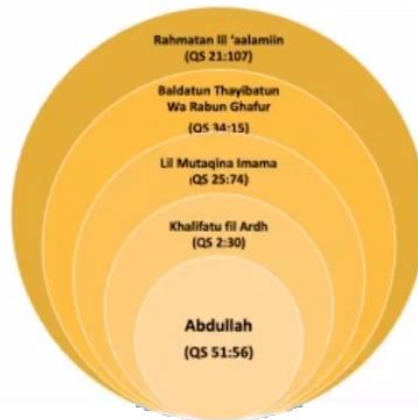


Figure 1. Educational goals at the Indonesian Nature School

The main focus of the goal is to become Abdullah (a person who always worships Allah) because essentially the purpose of human creation is to worship and worship Allah. This is the first foundation of the school of nature. As quoted by the Director of Operations SAI.

"Schools don't make humans to be engineers, or whatever, but how can they become Abdullah (always worshipping), this is the most important and most important thing, everything we do at SAI, outings, expeditions, live ins, PJBL and others is in vain. all corners of Indonesia if this first goal is not achieved "

The second goal is to lead humans to become Khalifatul fil Ardh (Khalifah on earth), namely to become people who take care of this earth, by protecting the environment, their homes, their schools, their friends, that students are representatives of Allah on earth so that they do not carry out destructive activities. earth or someone else. This concept should emphasize concern for living things from the smallest things.

The next goal is to become students to become lil muttakina imama. This goal makes students not only believers but also as good leaders with their respective divisions. And must be able to show that Muslims have a concern for the environment and the natural surroundings.

The main foundation that is relied on in the SAI curriculum is the Moral Curriculum. This concept is always conveyed in meetings by school principals and facilitators at SAI. Moral development is considered to have a major influence on other aspects of life. If moral development has been implemented, the development of other content will be easily achieved. The following illustrates the pyramid of the SAI curriculum in **Figure 2**.



Figure 2. Curriculum pyramid and SAI curriculum targets

The development of a moral curriculum will determine the success of other curricula. so that the indicators of achievement in the success of students are very large. The indicator of success is that students have noble character. This curriculum is a kind of measure of the success or failure of education at SAI. If moral development has been carried out, then only then is the development of leadership and scientific (scientific) thinking skills.

The Natural School curriculum also adapts to the National Curriculum by presenting general lessons such as Islamic Religious Education, Arabic, Indonesian, English, Social Sciences, Science, Arts, Mathematics. The four pillars of the curriculum are applied to the thematic integrative learning system with the Project Base Learning (Pjbl) approach. This concept implements Project or Activity-based learning that accommodates all subject areas. This activity makes something by supporting knowledge in the process.

Various learning activities are created in teams and independently. This is done according to the natural situation and current conditions. However, the preparation still refers to the foundation of the four basic curriculums above. So that activities outside the classroom dominate learning activities. Some of the outdoor activities that are routine programs at the Indonesian Nature School include internships, outings, beach walks, mountain climbing, live ins, bringing in maerstro/experts in certain fields, making aquaponics, designing young explorers' big dreams, science fairs, pawon shows, market day, student president and so on.

The school of nature is a school of life, namely the concept of learning all aspects needed by human life. so that the school is a system that combines various entities of the family, school system and society. All must work together to support each other so that all learning objectives can be achieved. A very important philosophical concept in SAI is that the first party must learn not the student, but the first and foremost in SAI is the teacher (facilitator), the second is parents and the third is new students. Because the most effective method in SAI is exemplary, exemplifying and applying first to yourself and then teaching it to students will be very effective.

Implementation of Environmental Education in SAI Learning

The position of the environment in natural schools is not only a curriculum content but has become a "spirit" for all learning activities to take place, the environment is not only one of the main goals but also a medium and means of learning. Through this concept, students are directly taught how to be kind to themselves and their surroundings. This understanding was expressed by the curriculum representative, Mr. Irvan:

"It is part of the process of knowing and understanding how nature as a creature of Allah glorifies Him. And morals are instilled to treat nature well as a form of our gratitude to Him."

In implementing the curriculum described above in SAI there are principles that prioritize the values of environmental education and are programmed in the long term. These principles are known as the Seven Green Principles of SAI. This principle is the foundation that is built in carrying out the process of school activities. The principle is expected to be a measure of the success of schools in building a school image that is rahmatan lil alamin. This principle is illustrated in the **Figure 3**:

All components of SAI are given to carry out activities based on these seven principles. These principles are implemented in the concept of the school ecosystem, the form and concept of classrooms, school disciplinary rules, to the form of activities or learning activities in schools.

The process of implementing environmental education in SAI is not specifically given in a lesson or activity, but the content is designed to be integrated in all PjBL SAI activities. Environmental content is given in all learning activities as an implementation of the values contained in the goals and moral development of SAI students.

The content of environmental education on the integration of learning in SAI is included in the focus of the moral curriculum. So based on the explanation in the curriculum description at SAI, environmental education is one of the foundations and main indicators of learning achievement. The following is the position of environmental education in the curriculum focus at SAI.

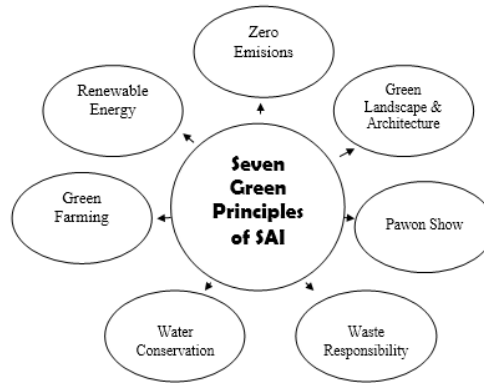


Figure 3. Seven Green Principles of Sekolah Alam Indonesia

Table 1. Environmental education content in the focus of the SAI curriculum

Curriculum Focused	Competency Standards	Basic Competencies	Indicator
Moral and Implementation in the Classroom	Having a commitment to the values of truth as the implementation of a clean aqidah, correct in worship and having a noble character	Carrying out Islamic etiquette	Keeping yourself clean
			Keeping the environment clean
	Be a person who is useful to people	Make it easy for other people	Cleaning class Participative and active in caring for the surrounding environment

From the curriculum focus above, the principles of environmental education are made into indicators that can be measured, but their implementation can be applied to broader cases or problems. Maintaining personal hygiene can be manifested in the attitude in maintaining the cleanliness of the body, clothes, study equipment to the house. Indicators of maintaining environmental cleanliness can be applied to broader aspects such as disposing of waste by classifying the types of waste, participating in caring for the surrounding environment.

To implement and instill the expected character in the curriculum, each facilitator is asked to design an activity that meets the achievement targets. Environmental education at the Indonesian Natural School is a learning activity as a reinforcement of the natural curriculum and character that is integrated into all learning sectors in schools as the spirit and essence of sustainable living. So that this learning model aims to foster a sense of initiative, concern and positive attitudes towards others as well as environmental conservation.

Environmental Education during the COVID-19 Pandemic

During the pandemic period, SAI students are also required to conduct distance learning. This is an obstacle as well as a challenge to continue to innovate to create programs that are creative, educational, adapted to conditions but do not ignore the curriculum and learning objectives carried out at SAI. However, according to the Director of Education of SAI, the wisdom of the existence of PJJ is to return the nature and education of children to their parents because, as stated earlier, it is the parents' duty and responsibility to educate. Inner schools are partners and partners on how to create a system so that parents can carry out their roles to the fullest.

During the pandemic, the PJJ program was carried out called Home Based Learning (Hbl) which consisted of 7 activities. This program is expected to be a middle ground and refreshing to get closer to learning between children and parents. The concept is the same as PjBL but carried out at home, parents have the biggest role and collaboration between facilitators and parents will determine the success of the program. Apart from being a facilitator, the teacher also acts as a learning consultant.

1. Home program

The activity of installing children with good habits at home regarding daily activities starting from waking up until going back to sleep. For example praying 5 times a day, bathing, cleaning the house, watering plants, etc.

2. Home Based Project Learning

Inspired by the concept of rahmatan lil aalamin, and is a complement to the Home Program. With the two formulations, SAI hopes that every house can become a miniature of rahmatan lil alamin. Project activities at home on the sidelines of home program activities. All planned activities must refer to the Seven Principles of SAI. All activities must be environmentally friendly and be an oasis not only for teachers, students, and parents but also for the natural surroundings.

3. Playdates

This activity is a moment to release children's longing for a school atmosphere, because for them school is not just a place to learn. There is an inner bond between the children and the existing trees, flowing rivers and corners of the garden to the learning hut. What may not be presented on Playdate is the commotion of student interaction. Playdate is designed to be dynamic and fun while maintaining the applicable health protocols. Things that can be done include light exercise, outdoor activities, fishing and gardening.

4. Class Bubble

It is a learning clustering system for a group of four to five children who are 'brothers'. The umbrella is an understanding and agreement between parents. By starting with the closest both distance, heart and mind.

5. Virtual Discussion

Build thinking skills with active learning. The essence of studying at an Indonesian natural school is to gather experiences for a better life. So that the learning process is carried out with a student center approach and active learning, where children are the subject of learning.

6. Teacher Visit

The presence of a teacher will never be replaced by any technology, the teacher is the most important part in one's learning process anytime and anywhere.

7. Parenting Support.

The same mindset between home and school is one of the successful implementation of Home Based Learning. Parenting support is a means to equalize perceptions and improve parents' skills in assisting home based learning programs.

Educating children at a young age basically requires patience. Children in their teens tend to be rebellious because they are in the process of becoming adults. So it takes patience and a certain method in dealing with it. During the pandemic, the challenges and obstacles experienced by natural school learning are very diverse. However, it can be broadly described as follows:

- Lack of a persuasive approach to child development

The pandemic condition certainly makes it difficult how the condition of children's development can be directed and assessed. Differences in understanding the attitudes and knowledge of parents who are the main supporters of Home base learning activities determine differences in child development outcomes. Although there is communication between these components online, it cannot completely replace direct interaction.

- Delayed outdoor activities; outbound, outing.

The pandemic period has also greatly impacted outdoor activities which have been the flagship program of nature schools. The environment that is the foundation of academic activities spread across Indonesia cannot be visited as a learning medium. Substitute programs for similar activities still cannot replace the output of this outdoor activity.

- The lack of joint practice activities in the project

The pandemic has resulted in the learning process being carried out independently in their respective homes. This certainly reduces the essence of togetherness and emotional intimacy between students and with facilitators (teachers).

Despite experiencing obstacles in the implementation of all learning objectives, the lesson is that all parties are motivated to continue to innovate to find ways to keep learning activities on the existing corridor. This condition will strengthen the noble ideals of the natural school to build a miniature Islamic civilization. The pandemic period at home again strengthens the emotional bond of children and parents so that this period must be grateful for as a lesson in itself.

Conclusion

The curriculum applied at the Indonesian Natural School is the moral curriculum, the leadership curriculum and the logic/thinking skills curriculum. This curriculum is morally the foundation curriculum (main focus) that determines the success of other curricula. This curriculum is adjusted to the achievement of competencies in the national curriculum, the difference is the learning methods and models applied.

Environmental Education is implemented in an integrated holistic manner in every project-based Learning (PjBL) activity. Aspects of environmental education are included in the moral curriculum. The first and foremost method is the concept of exemplary (example). Every activity that is designed must follow the Seven Green Principles of SAI. Environmental education is applied in the form of rules and activities based on the environment.

During the pandemic, Sekolah Alam Indonesia implemented Home based Learning as a distance learning program (PJJ). This program is carried out with a focus on character (morals) and refers to the Seven Green Principles of SAI but is carried out at home. This program restores the nature and role of parents as the main educators of children because more children are at home.

Suggestions for educational institutions or schools that want to instill environmental education in students, so the main focus that is built is moral/character education. If students have good character, it will make it easier to instill other competencies to be implanted.

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