

## **ENVIRONMENTALISM-BASED E-LEARNING FOR CHILDREN**

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### **Abstract**

Full exploitation of natural resources without paying deep respect for constant needs of life undoubtedly and continually invites natural disasters, such as flood, erosion, barrenness, el-nino, la-nina, global warming and the spread of a number of diseases. As worthy successive generations of the country, children have significant roles in preserving healthy environment in the future life. It is widely known that, with the passage of time, technological advances have recently become a growing need given that these advances can make it possible for humans to engage in their activities with ease. However, for the purpose of making people have responsibility for their environment, it is essential for professionals of the educational field to give complete supports for children, one of which is to provide a supportive learning environment by implementing e-learning program to be an effective solution to educational problems and a thorough preparation for advanced education. This article tends to study the program of e-learning for children in connection with their responsibility as the next generation to protect their environment in eco-friendly way. The work uses the descriptive-qualitative method in a library research. The learning process on eco-friendly basis is an educational process in charming ways by friendly teachers. The program of e-learning concerning care of environment is implemented by contextually explaining leaning subjects for children in such a simple method that they can have detailed, practical knowledge to think further about the subjects. Needless to say, this needs teachers' creativity more and more. Through this learning, it is expected that children know how to deal with socio-economic problems in harmony with the preserving of healthy and pleasant environment. Moreover, they are supposed to know that the maintaining of this harmony should not be considered a temporary duty because living in complete harmony is the fundamental, universal need throughout the human existence.

**Keywords: E-learning, Environmentalism, Friendly Environment, Learning For Children**

### **INTRODUCTION**

Nowadays, all countries around the world are suffering from global warming resulted from the green-house effect in the atmosphere. This current condition is the effect whether from combustion of refined fuel oil or illegal logging which are continually done by human. Besides, it is also caused by the increase of pollution, unintentional willingness to protect natural resources, and also the increasing of human's actualization toward industrial, commercial or individual needs.

Those problems have caused lots of disasters such as flood, landslide, *el-nino* (endless dry season), and *la-nina* (endless winter) that continuously happen time by time. Moreover, the disadvantages resulted from these disasters endanger not only human being but also the other creatures. Actually, some preventive activities had been done in order to protect the environment, for instance making conservation area, pollution control, and environment development services. However, those efforts are not optimal enough to prevent the environment since the biggest cause of this damage is human's greed toward unreasonable reasons like luxuriously and instantly way of life without considering to what happen to the environment.

That is why there is a requirement to improve the quality of human resources in managing the environment wisely and continuously. At least, there is an effort done to decrease the global heat temperature. Since the main source of environmental problem is no other than human being, so the effort to overcome this condition should be done by human themselves. Thus, environmental education is considered as one of efficient ways to build a paradigm concerning environmentalism. The purpose is that to develop responsibilities to wisely protect and make use of the environment and to keep it constantly natural. Education is not merely learning process conducted in a classroom, but it also can be conducted within the society.

The earlier the environmental education is taught, the better result will be achieved. In other words, children are the best age to learn environmental-based education since in this age, children are more sensitive toward everything, and it will determine their basic character and behavior, including their attitudes toward environment. Also, children are the next generation prepared to continue the management of environment. Thus, school environment is a suitable source concerning environmental education so that school can prepare environmental-based program that designed as conducive as possible.

The designs used in environmental-based learning are completely based on teacher's creativity, so that teacher can provide good learning material, especially e-learning material. E-learning material is chosen since it can be accessed anywhere and anytime, even when students are at home. They can make use of this electronic-based material as a learning source. The fast development of technology information force teacher to be more creative in designing eco-friendly learning material. The use of internet-based technology nowadays is inseparable with students' activities. The increasing number of internet providers through the use of Wi-Fi, USB or other wireless connections proved the students' engagement to the internet. Thus, in order to minimize the negative impact of this high frequency of the internet, teacher can optimize its use, such as websites, as an alternative tool in learning activities.

Besides, the use of e-learning material is more accessible for students rather than the conventional material. Technology-based learning have changed the education paradigm, from theory to practice, from classroom activity to any places activity, from paper pages to website pages, from physical facility to networking facility, and from cycle time to real time. The most important concern is the content provided in the material so that the learning objectives can be achieved. Internet-based approach can be used as an alternative reference in developing eco-friendly material since it is cheaper and more flexible. Furthermore, it can provide more interactive information rather than the conventional ones since students can use not only the computer pc provided by school, but they also can use their own tablets or mobile phones.

The objectives of learning process is to bring students to be religious and have good manner, be healthy, knowledgeable, skilful, creative, autonomous, competent, and aware of national customs. Eco-friendly based learning is the suggested learning activity to achieve those goals. This article, thus, are talking about the implementation of eco-friendly based e-learning for children to optimize the learning objectives have been defined.

### **Environmentally Friendly Learning**

Environment refers to the unity of certain places with all things and creatures within it, including human and their behaviours. Environment itself consists of biotic components (living things), abiotic components (non-living things), and human's custom and behaviour. Environmentally friendly means explicitly put students as the centre in learning process in which the whole process may be influenced by some factors: teacher, administrator, parents, and figures in society.

Making students observing their surrounding environment will balance the learning process. It means that the learning activities had by students can be conducted whether inside or outside classroom. In this case, outdoor learning activities are done to trigger students and change their paradigm to be friendly to their environment.

Environmentally friendly learning is beneficial for students and of course for the environment where the students are learning in. In this case, students not only learn autonomously but they also learn from others, so they know how to appreciate someone or something. It will also trigger students' creativity in reaching learning process. In eco-friendly learning, teacher's role is only as facilitator because they need to adjust the method used so that all components in environment such as family and society can be actively involved to achieve the learning objectives (United Nations of Education, 2015: 11).

Environmental-oriented school's policies include two aspects. The first one is school vision and mission that caring for environment, integrating environmental-based learning to all subjects. Then the second aspect is promoting environmental-based activities such as reducing the use of plastics, recycling trash, saving energy, promoting health food campaign, and applying environmental-oriented scientific activities. Eco-friendly-based learning is good to be applied since it tried to involve all participants to actively keep the environment, it is done continually and it has very positive effect in increasing students' responsibilities. Managing eco-friendly facilitations such as making and utilizing school's forest, creating trash bank, providing organic and an-organic trash bag, and providing good-quality water is also beneficial in supporting eco-friendly-based learning.

### **E-Learning**

E-learning can be defined as learning activities delivered through electronic devices to make students get only what they need. There are three main base concept of e-learning. The first one is that e-learning is conducted through networking connection that can make it work faster, whether to save, display, distribute, and share the learning information. The second concept is that e-learning is used through the use of computer-based devices integrated with internet connection. The third concept is that e-learning focuses on wide-range learning as the result of developed learning paradigm.

E-learning is a learning process that involves the use of electronic devices in creating, supporting, delivering, reviewing, and assisting the teaching learning process. It is an interactive student-centred learning process. Basically, e-learning refers to the learning processes that use information and communication technology in their teaching learning activities (Mohammad Surya, 2004: 156).

The activities of information delivery in e-learning are done online, virtually distributed using networking or web-based connection. As letter e in e-learning refers to electronic, e-learning tried to add together all learning activities, whether it is individual or group, online or offline connection, and distance or direct learning, into one general activity packed by computer pc or computer-based devices. Som Naudi (2006: 1) stated that in applying online-based learning, teachers need to set a well-planned plan or strategy in which they can ask students to make small group discussions, accomplish some exercises, provide counselling time, and arranging discussion time.

Open, guided discussion, furthermore, can create more effective learning activities since students will try to focus on what is told to be discussed. This learning system supports small group collaborative learning that have been widely considered as good learning model. This type of activity allows teachers to easily divide the students into small group to accomplish some arranged exercises, both in online and offline learning (Som Naudi, 2006: 59).

### **Children Learning**

The process of learning is something inseparable with the definition of teaching and learning since it must be tackled together. Learning activities still can be conducted with or without teacher's assistance. However, teaching activities are set of process that can be done only by teacher in a certain place to achieve the learning objectives; develop students' moral and learning achievements (Suardi, 2015: 6). Thus, teaching learning activities is set of activities that are purposively done by involving teacher's professional knowledge to obtain the objectives defined in curriculum.

What are meant by children in this article are them who are in their teen ages. Teenage period is the time when someone's autonomy is begun. That is why it is no wonder that individual willingness is the main factor that influences their self-improvement. One definition of teenagers comes from *al-irhaq* that means fatigued and exhausted, *arhaqahu* that means burden and cover, and *arhaqahu usran* that means burden someone with something difficult. Thus,

teenagers can be defined as people whose characteristic is rebelling, exhausted yet energetic once they got into something burdensome (Fauzi Rachman, 2009: 52). Besides, teenagers are young people in the age between 13 and 19. Functionally, people are changing during their teenage since they feel they are burdened by society’s demands they never felt before. In this period, they need to adjust their lives from comfortable childhood to difficult teenage period (Fauzi Rachman, 2009: 49-51).

Teenagers’ childhood is period in which they develop their logical way of thinking to focus more on their body changing and identity searching. Based on Indonesian system of legislation, people in their young teen ages are known as children rather than teenagers. In The Compilation of Islamic Law section 98 article 1, it is mentioned that children are those who are in range of age before 21 years old and who have not married yet (Presidential Instruction No. 1 Year 1991, 2001: 50)

Therefore, learning process is, generally, a process in getting knowledge, developing skill, forming attitude and behaviour, and strengthening students’ personality (Suyono and Hariyanto, 201: 9). This definition refers to individual personally change whether in term of knowledge or behaviour and attitude in daily life. Learning of children, then, is a purposive activity done by directly involving students; children in this case, as the centre of learning to properly achieve its objectives.

**METHOD**

In this article, the researcher used qualitative approach with library research as its research method. This article focusing its preference to observe eco-friendly-based learning as described in the previous section. Therefore, the instrument used in collecting the data is the researcher himself in which the collection is in form of documentation and literature. In analyzing this study, there are some steps have been conducted. They are drafting, data collection, data analysis, and verification. Since this study is a library research study within qualitative approach, then the data is generally analyzed based on Interactive Model proposed by Miles and Huberman including data reduction, data display, and drawing conclusion/ verification.

**Electronic-Based Eco-Friendly Learning: Solution For Future Learning**

Humans’ careless had caused serious damage to the environment. That is why it is highly suggested to conduct eco-friendly-based learning. This learning does not only merely concern about self-protection, but also provide protection for the next generation.

Traditional learning is a paradigm that provides alternative way of study as well as positive changes in educational setting. However, it is still good to apply learning activities by combining e-learning based activities with the traditional ones, as long as they are sufficient. Table 1 shows the main differences between electronic-based learning with traditional learning.

Table 1. Education Paradigms toward learning activities

Element	Type (in respect to the education paradigm)	
	Traditional	e-learning
Main objective	Preparation for life and work	Providing of an environmet for self-determination and self-realization of one’s personality
Knowledge	From the past (“school of memory”)	From the future (“school of thinking”)
Learning process	Teaching the learners certain knowledge and skill	Creation of own world model with active work of the learners
Learner	Object of the pedagogical activities (effects)	Subject of the cognitive activity
Type of the relation teacher – learner	Monological	Dialogical

From Table 1, it can be inferred that traditional learning is quite different from e-learning. The main objective of traditional paradigm concerns in making preparation for work and future life, while e-learning paradigm more concerns in providing environment for self-determination and self-realization of one's personality. Furthermore, knowledge obtained in traditional learning is mostly past-oriented knowledge, while e-learning paradigm obtains knowledge that is future-oriented. In term of learning process, the provided activities in traditional learning are limited only for some certain skill that make students only as the object of learning process. In e-learning, however, the activities provided allow students to actively create their own learning model as well as set them as the subject of learning. The teacher-student relation for both paradigms is also respectfully different. In traditional learning there is only one-way communication (monologue activities), while in e-learning, they can build two-way communication during learning process (dialogue activities).

Electronic-based eco-friendly learning is a type of learning that used computer and internet as its basis. It allows students to autonomously learn by themselves, whether it is for guided or impromptu learning. For impromptu learning, students are freely allowed to access the information and material based on students' personal preference. In the other hand, students are asked to access certain e-learning website that had been provided by interactively fully-packed material so that students' access can be traced.

Eco-friendly learning also can be said as children-friendly and teacher-friendly learning that focusing on the importance of teacher and student togetherness as a united learning community. This concept provides students-centered learning and engages students' active participation in learning. Besides, it will also ease the teacher in accomplishing his/her role to give the best education for students. The children-friendly learning is applied by asking students to be more creative, to be more skillful, and step by step to be better than ever in using these up-to-date communication devices

The use of recent e-learning cannot be separated with the development of internet since it provides all material to be concerned by teacher in designing learning activities. Currently happening learning activities are no longer dominated by teachers and books' roles, but it also dominated by technology that growing fast. Even, it becomes the main media in learning activities. Being not able to operate this technology will make students out-of-date and left behind. Thus, the use of technology in learning has become the main reference for students in collecting information for their learning.

School is the one that providing eco-friendly learning through e-learning that in this case, it is used to simplify learning material, to engage students' relationship among them, and to visualize the concept of material to be taught. First, the material simplification is done by conceptualizing learning vision and mission to be eco-friendly learning, and then integrating them to all subjects at school. Electronic-based learning also invites students to wisely use the electronic devices, and consistently and continually keep the environment, properly balance the nature, and fully respectful to all symbiosis available in environment. All education practitioners agree that actualization of children' behaviour toward environment should be integrated in the learning material. The material here can be created by making website or using another electronic media.

Furthermore, this activity will make teacher to be more creative in developing academic knowledge and skill so that they can help students better in their learning. So does for the students. When they can freely access the material, they will realize that they have helped to cut down the use of paper, as it is known that papers are made of wood, one of the most important oxygen suppliers for living things. Minimizing the use of paper-based activity it means minimizing the damage on environment caused by wood-cutting activity. In other words, it can be said that they have also contributed in saving the environment.

Besides engaging students' creativity, eco-friendly learning through e-learning also can develop students' willingness to actively take part in learning and to actualize the knowledge they got from e-learning. For example, students are asked to make environmental-oriented program or activity such as reforestation in order to make a better, cooler, and more beautiful environment. As the impact, a number of serious damage in environment will be decreased, whether it is physical damage such as crack on infrastructure and building property, social damage such as noisiness in local area and drunkenness, or ecological damage such as environmental disruption (Colin and Wilson, 2006: 105)

A good action to teach environmental-based teaching is by educating students to throw garbage to its place. This action is practically can be done in their daily life. It is undeniable that any human activities will always result garbage. Minimizing the garbage production becomes a basic action in environmentally-friendly action. This reduction program can be done by re-using second-hand things into eco-friendly tools. The way in recycling the garbage can stimulate students' creativity. In this case, students' inability in learning should not be a barrier of learning. The internet as a teaching media can be used to make the learning activity to be more environmentally-friendly learning.

By giving daily activities and role model from the teacher, it is expected that environmentally friendly learning not only can be applied for the sake of students, but also it is also done as a role model for family environment as well as the surrounding society. The earlier the learning is introduced, the better application is performed. Their memory remains lasting longer whenever and wherever they are. Therefore, the better environment can be achieved sooner, so the implementation of these activities should not be delayed.

Environmentally-friendly learning has various impacts. Some of those impacts are the environment conservation and the balance of social and economic situation. It means that by applying the concept of environmentally-friendly learning, the next generation children can fulfil their ecological, social and economic needs. Caring for environmental is a part of long-life learning, so it is something that continually done. This learning design includes also the development of technology as the main aspect of environmentally-friendly actions.

Environmentally-friendly learning is not only friendly for children but also for the teachers. Teacher's kindness creates conducive learning atmosphere. The term learning environment is defined a setting for formal or non-formal education activities in which students are learning the knowledge and skill for daily needs. (The United Nations Educational, 2015: 10). One characteristic of learning teacher-friendly learning is the teacher's warm smile that creates a good learning atmosphere and makes students motivated more in learning. This type of learning program can be done by eliminating the teachers' attitudes in discriminating the children and minimizing students' boredom child by changing seat positions in classroom. Concerning electronic-based eco-friendly learning, teacher-friendly learning activities is done by giving students their free time to use their own smartphone or other devices to access the information they need and to actualize their knowledge toward environment. Thus, students do not need to depend on pc computer provided in their school. As the result, students-teachers interaction can achieve warm and friendly interaction. The final results from environmentally-friendly learning allow teachers to detect how far the students understand and experience the knowledge. In other words, the assessment done by teacher is an authentic assessment.

### CONCLUSIONS

As social individual living in a certain society, children are interacting with other people. Besides, they also interact with the other things in environment in where they are living in. In environment there are animate and inanimate things. The animate things consist of humans, plants and animals, while the inanimate things are air, water, and soil. Humans are one of the important aspects in environment to guarantee the existence of the environment. Human being, in this case is teachers and students, are inseparable people in education setting. The education

mentioned before refers to the environmentally-friendly learning through the use of electronic devices, or called as e-learning environmentally-friendly learning. In this type of learning, students are required to concretely and creatively take action in the learning process. Therefore the teachers should be able to create effective learning activities. By doing so, the application of environmentally-friendly learning balanced the ecology, social, and economic aspect. Thus, taking care of the environment was continually and lasted longer.

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