

Environmental Education in Kindergarten

Heny Djoehaeni, Mubiar Agustin and Asep Deni Gustina
Universitas Pendidikan Indonesia, Jl. Dr. Setiabudhi No. 229, Bandung, Indonesia
henydjoe@upi.edu

Keywords: Environmental education, early childhood learning.

Abstract: Issues relating to the environment is a global issue that demands attention from various sectors including education. In early childhood education, environmental education becomes the starting point for early childhood awareness in the environment around them. The horizon of appreciation of this ecological linkage will be more profound and widespread when supported by a planned and sustainable environmental education praxis. Four key principles that can be used as guidance in guiding action that is in harmony with the environment are reduce waste and save on the goods available, reuse, recycling and replanting in order to preserve nature. The application of these four principles in daily life requires the support of adults around the child who will be the facilitator for the child in an effort to understand and love the environment. The success of environmental education for early childhood should be implemented through an integrated learning process, an exemplary element of the teacher as well as opportunities for children to take concrete action related to environmental education. This discussion will be focus on conceptualization of environmental education and its implementation in early childhood setting.

1 INTRODUCTION

The living environment is an inseparable part of the people's life. Throughout their life, people really depend on the condition of the surrounding environment. The changes occur in the environment will directly affect the people's life quality. The poor environment management happened because of the lack of people's awareness in preserving the nature, ignorance and the lack of understanding about the surrounding environmental conservation, thus it gave a very significant effect in their life. The issues related with the environment is a global issue that demands the attention from many sectors including education.

The environmental education has a very important role in overcoming the environment issues today. As stated by Seefeldt (1989) that currently the necessity of environmental education is very critical. The environmental problems as well as the decreasing natural resources became a concern that led to the attention and concern of environmental education.

The environmental education introduced early is expected to be able to develop positive behavior toward the environment sustainability. This is in

accordance with the statement from Sutrisno et al. (2005) that the introduction of the surrounding environment through early environmental education to the kids is an initial step for the kids to appreciate the environment.

In the Law of the Republic of Indonesia No. 23 in 1997 (UU RI No. 23, 1997) on the Management of the Environment, it is stated that the Environmental Education is defined as the means to change the behavior and attitude acted by various parties or elements with the aims to improve the knowledge, skills and awareness of the people about the environmental values and environmental issues which eventually will move the people to actively participate in the act of preservation and safety of the environment for the benefit of the current and next generations.

The early childhood education program is the foundation to develop the individual characters for the future. Many experts stated that the early education is a very fundamental stage for the next development and education. The Victorian Environmental Education Council (1992) stated that the learning experience in early age is the foundation for the next learning experience. Some of the basic

qualities of the importance of the environmental education are creativity, teamwork, environment preservation, appreciation toward the reusable resources as well as the understanding of the correlation of life on the earth that can be significantly developed since early age.

Some researches revealed the importance of the environmental education, such as the statement from Chen and Cheng in their research (2008) which stated that the Environmental Education is a very important tool in providing knowledge, positive attitudes toward the environment and establishment of the skills to protect and improve the environment quality. Regarding to the limitation of the source of funds and the increasing number of environmental challenges, the effective environmental education program. Therefore, it will be very important for the parents, teachers and other adults to identify early age as well as apply the proper strategy to help the kids have high awareness regarding the environment preservation.

This paper will review the environmental education study in early childhood. The aims of this research is to give knowledge about the importance of environmental education in early childhood and to find out the if implementation of the environmental education study is in accordance with the characteristics and needs of the kids as well as the kids' environment characteristics.

2 LITERATURE REVIEW

2.1 Early Childhood Education

The education for early childhood has a close correlation with the underlying study theory. The study theory that underlies the application of the environmental study to the early childhood kids is the constructivism theory. In the constructivist perspective, the environment maturity and experience play an important role in the learning process. Based on this theory, the knowledge is basically built by the kids through the interaction with the environment.

The constructivism is based on the Piaget research which showed that basically the kids actively interpreted their physical and social experiences as well as developing the knowledge, intelligence as well as their morality. The kids develop their own knowledge since they have many ideas that are in fact never taught to them (Masitoh: 2003). Similar to that, Coughlin (2000) stated that, the constructivists believed that the learning occurred when the kids are trying to understand the world around them. The learning is an interactive process that involves

friends, adults and the environment. In the constructivists' point of view, the kids are seen as active learners that develop their own understanding.

The constructivism is a theory about the knowledge structure. Kamii and DeVries as quoted in Branscome (2003) stated that the constructivism is a knowledge theory that emphasizes on each person's role in developing their own knowledge instead of directly absorbing from the environment. The focus on the kids is a knowledge creation, not on the repetition on what others think is an important knowledge. The constructivists are based on the research conducted by Piaget which showed that basically kids actively interpret their experience in the physical and social world to develop their own knowledge, intelligence and morality. The kids build their own knowledge since they have many ideas. In the constructivists' point of view, the maturity and environmental experience play an important role in the learning process. Based on this perspective, the knowledge is basically built by the kids through their interaction with the environment.

Branscome (2003) also stated that when one built his knowledge, he usually went to the stage of disagreement or disharmony with others' thoughts, usually with people with more experience. The constructivists gave a strong support to the change of one's thinking paradigm after he considered the opinions and ideas of others. The acceptance of the thoughts that have been changed or fixed would give many chances for the students to improve their knowledge as well as to improve their thoughts.

The constructivists understanding was initiated by two psychologists, Jean Piaget and Lev Vigotsky. Basically, they had understood the constructivist's assumptions that kids actively develop the knowledge. The kids developed the knowledge based on their experience, which was earned by the kids who actively developed their own selves through interaction with the environment. Based on this understanding, the kids are not passive individuals who only earned their knowledge from others. The kids are actively learning beings who are able to create and develop their own knowledge (Rogoff, 1990). Based on the prior assumption, it can be seen that this approach emphasizes on the importance of the kids' involvement in the learning process. Therefore, the teacher must be able to create fun and warm learning environment through games and interactions with the environment to encourage active participation from the kids. This approach is also related with the individuals' variation factors owned by the kids.

In relation with the development process, Piaget (Rooptnaire and Johnson: 1993) explained that the kid's development occurred through universal sequence and every development stage is marked with particular characteristics in thinking and doing. Basically, the thinking development process is shifted from concrete thinking to abstract thinking.

Meanwhile, Lev Vygotsky believed that the social context is very important in the kids' learning process. The social interaction experience holds an important role in developing the kids' thinking ability. The interaction between the kids and the social environment will create new forms of high mental activities. Rogoff (1990) stated that based on Vygotsky, the skill in using the culture tools is the core of social interaction role, and the interaction with the experts can be similar with the adults in guiding the kids' cognitive development. Piaget and Vygotsky emphasized on the importance of playing as the facility of the kids' education, particularly the ones related with the thinking capacity development. Creativity is very important to develop, particularly for kids in early childhood. Kids, who are directed to create something, must also directed to look for and explore new ideas so that they will be more reliable when facing the issues or problems that need to be solved. The interaction conducted by the kids with the surrounding environment, whether with adults and peers, can give valuable experience for them since it can help them develop their language skill to communicate and socialize. Last but not least, by interacting, the kids will learn to understand others' feeling and respect others' opinions, so it is indirectly train them to express their emotions.

2.2 Environmental Education Review

Stapp (1979) stated that the environmental education is a process to develop the world citizen who are fully mindful and aware of the environment and the problems related to the environment, and who have the knowledge, behavior, motivation, commitment, and skills to work individually or in teams for the solutions of the current problems and the preventions of the new coming problems.

In line with this, Eco Schools Program (1998) stated that basically, the environmental education in schools are to bring changes in the students' behavior and values as human beings in interacting with all environmental components. When the school established the practical environment sound program, the students would actively participate in improving the school's environment quality. In most part of this case, the best result would be achieved if conducted

with the support and the participation from the society, including the government departments and non-government institutions. When the students see that they give realistic contribution to the environment, they would study with more goals, their motivation would increase and their self-esteem will be higher.

Kinsella (2008) stated that in today society, we are becoming more aware of the global warming, climate change and planet welfare as well as the habitat for the future generations. As parents and caregivers, we are often worried about the future of our kids and many of us feel that we can do more in daily life to contribute in the solution and in the cause of the environmental problems. On the other hand, Kinsella (2008) also stated that our house and the society is the place where we raise our kids, so it is rational to want to preserve our house to be safe and healthy for them to grow and learn. We know that the kids learn from the interaction with their family caregivers and environment, so that through what we do in our daily life, we can start to involve the kids to learn take care of their surrounding environment.

3 METHODS

The methodology used is the Literature Review by reviewing and analysing various sources related with the writing theme. The review topic is related with the environmental education and the application on kids in early childhood.

4 RESULTS AND DISCUSSION

In this section will be discussed matters related to environmental education in kindergarten.

4.1 Environmental Education Scope

Environmental education is basically an effort to instilling individual care for the environment. Environmental education that is planted early on will foster positive attitude of children to the environment. Sutrisno et al. (2005) stated that the introduction of the surrounding nature through environmental education to the kids is the initial step for the kids to respect the environment. Further, Sutrisno (2005) stated that the concern toward the environment can be grown in the kids since their early childhood. Therefore, the most successful and relatively fast as

well as satisfying way is to teach kids love the environment.

On other parts, Sutrisno (2005) stated that through direct interaction with the environment will raise new appreciation within the kids about the ecological correlation. The appreciation horizon of the ecological correlation will be deeper and wider if supported by the planned and continuous environmental education practice. Environmental education is closely related to daily activities

In relation with the scope of the environmental education, Sutrisno (2005) stated four main principles as the guidelines in guiding the action in accordance with the environment, namely:

- Reducing wastes and being provident of the available goods;
- Reusing;
- Recycling;
- Replanting in order to preserve the nature.

The application of the four principles in daily life need the support of the adults around the kids that will be the facilitators in order to understand and love the environment. The success of the environmental education for the kids is supposed to be conducted through integrated learning, the presence of the role model from the teachers and the chances for the kids to do real actions that are related with the environmental education.

Kinsella (2008) stated that in order to involve children in learning about taking care of the world around them, there are six areas of sustainability education:

- Energy saving
- Water conservation
- Waste minimisation-rethink, reduce, reuse, recycle
- Gardening and composting
- Sustainable food practices
- Green play experience

In practice, the basic principles and areas of environmental education should be accordance with the characteristics of early childhood. Teachers have a very important role to create a fun and meaningful learning for children.

4.2 Environmental Education Learning Strategy

A meaningful learning for the kids is the learning that is in accordance with their interest and needs. The environmental education delivered to the kids will be meaningful if related with the context of where the kids are. This is in accordance with the opinion of

Adisenjaya (file.upi.edu) that the environmental education can be taught by applying the contextual approach.

The educational model developed in the environmental education for kids in early childhood is the inquiry process based Contextual Learning Model. This model is seen appropriate since the early childhood education will be more meaningful if conducted through activities close to the kids' daily life and conducted through direct experiences.

The contextual approach is the learning approach that facilitates the students to find, process and look for learning experience that are more concrete and related with the real life.

Johnson (2007) stated that the contextual learning involves the kids in important activities that help them to relate the academics education and the context that they face in real life. By connecting both, the kids will see the meaning in the school assignments.

The contextual learning model gives the emphasis on the learning by doing. This will push the kids to learn actively by doing the activities arranged by the teachers or the students. Based on Johnson (2007), the learning components and the contextual learning that include the active and hands on learning practices, for instance, continuously challenge the kids to create.

The steps of the application of the contextual approach in the class are as follows:

(MKDP Curriculum and Learning Development Team: 2009)

- To develop the thoughts that students will study more meaningfully by working alone, finding themselves and constructing the knowledge and skills by themselves;
- To do inquiry activities (with observation cycles, asking, hypothesized, data collection, and conclusion).
- To develop students' curiosity by raising questions.
- To create learning society such as group activities, discussion, question and answer session, etc.
- To present model as learning example. It can be through illustration, model and even real media.
- To accustom the kids to reflect on every conducted learning activity.
- To assess objectively, to assess the students' real ability.

The learning steps conducted in this contextual approach is further aligned with the learning activities conducted daily that includes opening, main, break, and closing.

5 CONCLUSIONS

The environmental education has a very important role in overcoming the current environmental issues. The environmental education introduced early is expected to develop positive behavior toward the environment preservation. Therefore, the teachers need to develop the learning strategies that are appropriate with the characteristics and needs of the kids in early childhood. The challenging direct experience is the foundation for the teachers to arrange the proper strategy. The environmental education will be more meaningful if conducted with contextual approach that is more concrete. The four principles of the environmental education are to reduce wastes, reuse, recycle and replant, those can be the references for the teachers in planning the environmental education activities that are fun for the kids in early childhood.

REFERENCES

- Bezzina, C., Pace, P. 2006. *School improvement, school effectiveness or school development*. London: Trentham Books Limited.
- Branscome, A., Kathryn, C., Dorsey, A. G., Surbeck, E., Taylor, J. B. 2003. *Early Childhood Curriculum. A constructivist perspective*. Boston: Houghton Mifflin Company.
- Borg, W. R., Gall, M. D. 1983. *Educational Research. An Introduction* Second Ed. New York: Longman.
- Carol, S. 1989. *Social Studies for the Preschool-Primary Children* Third Edition ed. Ohio: Merrill Publishing Company.
- Chen, J., Cheng, H., 2008. *Children, Teachers and Nature: An Analysis of an Environmental Education Program*. Disertasi. University of Florida.
- Council, V. E. E. 1992. *Learning to care for our environmental: Victoria's Environmental Education Strategy*. Melbourne: Victorian Educational Environmental Council
- Coughlin, P., 2000. *Menciptakan Kelas Yang Berpusat Pada Anak*. Terjemahan: Kenny Dewi Juwita. Washington D.C. Children's Resources International.
- Hamalik, O., 1995 *Kurikulum Dan Pembelajaran*. Jakarta: Bumi Aksara
- Kurikulum Taman Kanak-Kanak. Pedoman Pengembangan Program Pembelajaran Di Taman Kanak-Kanak 2010* Jakarta: Kementerian Pendidikan Nasional. Direktorat Jenderal Manajemen Pendidikan Dasar dan Menengah. Direktorat Pembinaan TK dan SD.
- Kurikulum Berbasis Kompetensi. Pelayanan Profesional 2004* Jakarta: Departemen Pendidikan Nasional
- Lang, J. 2007. *Little Books of Big Ideas: How to Succeed with Education for Sustainability*. Carlton South Victoria: Curriculum Corporation.
- Masitoh, O., Heny, D. J. 2003 *Pendekatan Belajar Aktif di Taman Kanak-Kanak*, Departemen Pendidikan Nasional, Direktorat Jenderal Pendidikan Tinggi Bagian Proyek Peningkatan Tenaga Kependidikan
- Preuss, P., Duke, G., Rogers, J., 1998. *Environment*. Melbourne: Cambridge University Press.
- Rogoff, B. 1990. *Apprenticeship in Thinking. Cognitive Development in Social Context*. New York: Oxford University Press.
- Sanjaya, W., 2009 *Kurikulum dan Pembelajaran. Teori dan Praktek Pengembangan Kurikulum Tingkat Satuan Pendidikan KTSP*. Jakarta: Kencana.
- Shallcross, T., Robinson, J., Pace, P., Wals A., 2006. *Creating Sustainable Environment in Our School*. London: Trentham Book Limited.
- Sugiyono. 2008. *Metode Penelitian Kuantitatif Kualitatif dan R and D*. Bandung: Alfabeta.
- Sukmadinata, N. S., 2005 *Metode Penelitian Pendidikan*. Bandung: Program Pascasarjana Universitas Pendidikan Indonesia dan Remaja Rosdakarya.
- Sutrisno, H., Hary Soedarto 2005 *Pengenalan Lingkungan Alam Sekitar Sebagai Sumber Belajar Anak Usia Dini*. Jakarta: Departemen Pendidikan Nasional. Direktorat Jenderal Pendidikan Tinggi. Direktorat Pembinaan Pendidikan Tenaga Kependidikan dan Ketenagaan Perguruan Tinggi.
- Tim Pengembang MKDP Kurikulum dan Pembelajaran 2009 *Kurikulum dan Pembelajaran*. Bandung: Jurusan Kurikulum dan Teknologi Pendidikan Fakultas Ilmu Pendidikan Universitas Pendidikan Indonesia.
- Tyler, R. W. 1949 *Basic Principles of Curriculum and Instruction*, The University of Chicago Press.
- William B. S., Dorothy A. C. 1979. *Environmental Education Activities Manual*. Dexter, Mich: Thompson-Shore.