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# Education for Sustainable Development: How Early is Too Early?

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Sustainable development is defined as a development that meets the needs of the current condition without giving in the ability of future generations to suit their own needs. Various researchers refer to education for sustainable development in terms of education about the environment, which emphasizes knowledge about how natural systems work, such as water cycles and how plants grow; education in the environment which emphasizes direct experiences in nature; and education for the environment which underlines active participation in solving environmental problems or making socially just and sustainable choices. Another way of defining education for sustainable development is the inclusion of economic, social and environmental dimensions of sustainability in the teaching content, demonstrating that sustainability problems are also connected to society at large and to human actions. The aim of this paper is to review and analyze research articles in the selected journals relating to the need for conducting education for sustainable development as early as possible. There are three questions which are developed. First, is it justifiable to conduct education for sustainable development in early childhood education? Second, how can young children act as an agent of change in relation to sustainability? Third, what parents, teachers, and society can do to involve children in promoting sustainable development? Recommendations for future researchers and childhood education practitioners are discussed.

Keywords: Early Childhood, Education, Environment, Sustainability, Natural Systems.

#### 1. INTRODUCTION

Sustainable development is defined as "development that meets the needs of the present without compromising the ability of future generations to meet their needs." This definition implies that individuals need to live sustainably at present and in harmony with the earth's natural resources, in order for the future generations to live sustainably as well.<sup>2</sup>

Within the perspective of lifelong learning, education for sustainable development should involve individual at all life stages.<sup>3</sup> Education for sustainable development is defined as education in, for, and about the environment focuses on environmental education. Education in the environment underlines the individual's direct experiences in nature. Education for the environment highlights individual's active participation and contribution in coping with environmental problems and having sustainable choices. Education about the environment emphasizes the acquisition of knowledge regarding how natural systems run.<sup>4</sup>

Education for sustainable development is important for both, the present and future generation.<sup>5</sup> Childhood is traditionally understood as a period of innocence, meaning that issues such as environment and sustainable development are too complicated for young children to understand.<sup>6</sup> However, several researchers, have identified that early childhood is a crucial period to cultivate the basis of values and attitude regarding education for sustainable development.<sup>5</sup>

Early childhood years as the phase of the greatest and most significant development in an individual's life. This period is also recognized as the basis upon which the rest of the individual's life is formed.<sup>7</sup> Additionally, they are capable to think sophistically regarding the environmental issues, such as habitats and living beings.<sup>8,9</sup>

Interest in education for sustainable development has increased. However, education for sustainable development in early childhood education is still neglected. <sup>10</sup> This paper reviews analyze research articles in selected journals regarding the needs for conducting education for sustainable development in early childhood.

### 2. YOUNG CHILDREN AS AGENTS FOR CHANGE

Young children can be recognized as 'agents for change' in learning for sustainable development. They also can be active participants in their own day-to-day activities. Agency is described as the individual's internal capacity to influence and to direct their lives. More specifically, agency is sometimes considered as individual's tactic to obtain control, create influence, and generate changes in their day-to-day activities. Agency is very important to develop young children critical reflection on public issues. Agency is very important to develop young children critical reflection on public issues.

Young children need to be recognized as 'agents for change' in an uncertain and diverse world. <sup>14</sup> The uncertainty situation of the world demands an empowerment for the next generation to have positive beliefs and to participate and contribute in future sustainability. <sup>15</sup>

The youngest children will stay longest in the planet. They are identified as the most potential group that can contribute to global change of the world overtime, and they also can be considered as the most powerful decision makers. Therefore, young children need to be well taught of as active participants and stakeholders on issues of environment and its sustainability. <sup>16</sup>

## 3. IMPORTANT AREAS OF ACTIVITIES IN SUSTAINABLE DEVELOPMENT

There are six features of pedagogy that can support education of sustainable development:<sup>17</sup>

- a. To have a perspective on children as competent and as an active agent in their lives.
- b. To build on children's everyday lives and activities.
- c. To integrate play and learning.
- d. To challenge children without threatening them.
- e. To communicate and interact with children.
- f. To support children to be participants in their own education.

Encouraging children to participate in their everyday life is an important starting point in education for sustainable development.<sup>17</sup> Additionally, there are six important areas of activities in education for sustainable and holistic development that children can participate in.<sup>18</sup> These areas can be conducted with families, teachers, and peers:

- a. Creating a sense of belonging. Related activities include visiting the forest with their families and documenting the changes, participating in gardening project.
- b. Learning about living systems to have a better understanding regarding the impact of human actions that can make them care for the resources. Relevant activities include spending time with teachers and friends to sit silently in the forest, to observe, and to think about what they notice about the forest, investigating the design of the building that makes it sustainable, using found materials to make other useful things.
- c. Finding out where things come from to increase connection to the surroundings. Children can document changes in the seasons overtime, think about where the water go, dissect fruits such as tomato, avocado, apple, and find the seeds inside, start to seed and to plant, and create something from recycled materials. These activities can involve teachers, friends, and family.
- d. Learning about social sustainability to live within a sustainable community. Children can discuss their knowledge and values regarding the forest with ther parents, learn about other gardeners to know what they do with the plants they grow.

- e. Respect for things in the environment to help them understand complex living systems that need care. Relevant activities include learning to take care of their environment by making sure that no garbage is left behind in their neighborhood, observing their neighbors to see how they take care of their gardens, and participating in soil turning, natural fertilizing, watering, and harvesting. These activities can also involve teachers, friends, and family.
- f. Learning to Respect Their and Other's Boundaries. Relevant activities involve observing that different plants need different spaces, nutrients, water, and sunlight.

#### 4. CONCLUSION

Education is a vital tool to achieve sustainability.<sup>19</sup> The benefit of starting education for sustainable development as early as possible is confirmed by research demonstrating how the basis of knowledge construction, attitude, and values are developed in early childhood years.<sup>17</sup> Educating young children for the future means educating them to become a friend, a person, a citizen, as well as to become individual who is independent, capable in constructing knowledge, in solving problems, and in thinking critically.<sup>20</sup>

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