Reflections on the Ways to Build up Responsibility towards Nature in Primary School

Viorica - Torii Caciuc*

*PhD Lecturer, Teacher Training Department, Faculty of Physical Education and Sport, “Dunarea de Jos” University of Galati, Garii Street, no 63-65, 800003, Galati, Romania

Abstract

Responsibility towards nature is a character trait that must be formed and developed from a young age. Children must learn how to fight against the complexity of problems, how to use interdisciplinary approaches by taking into consideration links with other problems, and to be able to evaluate facts and situations which lead to the deterioration of the environment. Alongside infusing the messages of environmental ethics, the use of pupil centered educational strategies represents an efficient way to train the children from the ecological point of view. Education cannot succeed in building up the ecological conscience and the ethic competences of the young generation without being accompanied by a new ethics – the ecological ethics – based on the man’s respect towards nature, without using an adequate educational strategy and some dilemmas that include facts or situations which result in deteriorating the environment. This study aims to conduct a thorough analysis of the theoretical and practical ways to build up responsibility towards nature in the primary school.

Keywords: Responsible attitude towards nature; pupil centered educational strategies; ecological education; ecological ethics; environmental attitudes;

1. Introduction

The intelligent way of achieving ecological education leads most of the times to discrepancies between the ways of implementing this new education. The dissemblance generated in the relationships between man and nature are

* Corresponding author. Tel.: +4-033-613-0164; fax: +4-023-632-1307.
E-mail address: caciuca@yahoo.com
caused by knowing the ecological norms and values without assimilating and using them in daily behaviours, by not taking responsibility towards the actions of destroying nature, by the lack of respect towards it. In other words, every man knows that he should protect nature, but no man does it out of his own beliefs. Starting from these remarks, the present paper will emphasize the necessity of an interdisciplinary approach between ecological ethics and ecological education, so as to achieve a quality education.

2. Ethical Premises

The contemporary context of the problematic of the environment has imposed a reconsideration of the values and attitudes towards nature which led to the appearance and development of different currents of opinions and attitudes, one more adequate, complex or practicable than the other. The fact that the classical ethics which is mostly preoccupied with the human interests and the fulfilling of their purposes, did not manage to face the effects of the global technology and industrialization of the human society, led to a change in the ethical system and to a reconsideration of the moral attitude of man towards nature. This is why some of the nature centered ethics extend the sphere of the human morality without contesting its value in itself, but rather highlighting nature’s and its elements’ value. The two strong currents that have developed – the shallow ecological ethics which is represented by P. Singer, the initiator of the “free animals” theory (Singer, 1979) and by T. Regan who has created the theory concerning animal rights (Regan, 2004), and deep ecology represented by P. Taylor who extends the sphere of morality even upon plants by means of his biocentric concept (Taylor, 2011) and by J. B. Callicott who takes into consideration nature as a whole, with all its human, non-human and non-living beings, a biotic community which deserves moral consideration (Callicott, 1989) – have developed gradually towards offering moral consideration and inherent value to nature as a whole and to its separate components.

Even though they have a strong influence over the reconsideration of the humans’ attitude towards nature, it is also known that these theories have certain limits. So, even if they fight from different positions in order to reach the same goals – for Singer, we are talking about the impartial use of the interests in order to increase utility and the happiness in the world, while for Regan we are dealing with not taking into consideration only the interests in order to increase the world’s utility – the negative aspect is the fact that they allow the use and exploitation of some animal species in order to reach human goals, even if they are imposing to take into consideration the assuring and respecting of these non-human beings’ wellbeing, and the fact that they have limited themselves at giving moral consideration only to sensitive living beings or to beings that have a purpose in life. On the one hand it is easy to understand and accept this limitation since these two theoretical concepts have been so revolutionary at their times for the field of ecological ethics and have succeeded to pass over the barriers of some concepts pertaining to the traditional ethics which were quite old and conservatory. Even in what concerns the deeper movement of ethical ecology, there are some limitations. Even though they manage to extend the sphere of morality over the whole ecosystem of the planet by taking into account not only the living beings, as biocentrism does, but also the non-living ones, even the whole ecosphere, as holism and eco-centrism do, by supporting their value in itself, we can still reproach them the constraint of liberty to act and even some radical ideas such as the number of people that can be sustained and tolerated by planet Earth because all the other components of the ecosystem deserve respect and moral consideration also. Even if men should show respect and responsibility towards nature, in the modern society there is a dissemblance so profound in the relationship between man and nature that in order to reach equilibrium in this relationship, it is needed an analysis of the causes and sources which have led to this context.

It is clear that the role of the ecological ethics in the contemporary world is to establish new directions, new landmarks on what concerns the relationship between man and nature. The ecological ethics must not be perceived as a concept that forbids the use of nature, but rather thinks at using it with care and respect. It must be present in all the political and economical decisions taken so as to think at the impact these will have over the environment. But here is where a problem emerges: from the grounds of which concept of ecological ethics should one make a decision? If we are to follow a man centered ethics, then only men will have an advantage, only their needs and interests will matter in favour of the non-human beings. The present day ecological crisis was the result of just such thinking. If man was to revise his thoughts upon his place in the world by turning himself from the master into the protector of nature, then in what degree will the adults (the moral agents) change their opinion about their own interests and will give up at them in favour of nature? On what degree and base will people take care of the
wellbeing of the animals from their industrial farms and will invest in assuring good life conditions for the animals so as to allow them to develop according to their own purpose and will respect their specificity? Men are interested in their economic benefit and their mentality is shaped even from childhood towards the idea of owning and exploiting nature. Maybe the young generation that will benefit from a new orientation upon the concept of nature will have a responsible attitude towards it and will show interest in it.

Taking into account these problems linked to the practicability of the environmental ethics and fare from wanting to elaborate a new ecological ethics concept, it might seem that a possible solution would be one of a trans-disciplinary nature. This assumes that men will accept their new status as parts of nature that could not live outside it. They will reach a higher level of understanding its problems and they will take into account both the interests of the human, non-human and non-living entities. The deontological perspective should be applied upon the wellbeing of nature and of humans, and also upon the consequential perspective in order to increase the degree of happiness and of utility.

Alongside the respect for nature, the responsibility towards nature represents another behavioural feature which contributes to perfecting the human personality, and also an acting and preventive coordination principle for the human activity in regards to nature. To have a responsible attitude and behaviour towards nature represents a step towards a preventive behaviour towards nature which proves to be much more economic than the repairing of the damages caused by excessive exploitation and by the irresponsible interventions of the human activities towards nature.

Starting from these observations, we might say that together with the educational systems, the contemporary ecological ethics may intervene beneficially in the building up and reconsideration of the human behaviour towards nature. In this context, an ecological education is imposed, which should focus upon developing the sense of responsibility towards and solidarity with other individuals, countries and regions, no matter their level of development, so as to maintain and help the environment, build an ecological conscience and the capacity to make decisions, to identify and use solutions for preventing and solving the concrete problems related to the relationship of the individual with his life environment, to prepare the present day and future citizen in order to positively influence the political, economical and social decisions regarding the environment (Momanu, 2002) and to build up a moral-ecological behaviour.

3. Research hypothesis, objectives and research methodology

The interdisciplinary approach of ecological ethics and of the other disciplines from the school curriculum represents an efficient means to reach the objectives of the ecological education from a small age, the school age. Being an older preoccupation of ours, by means of the present study we are trying to better analyze the interdependences and complementarities between the two fields and especially the way in which the intrinsic value of nature is reflected - by means of a series of properties such as: the aesthetic one, the property of being a complex system, a natural object, of having interests, etc. – in the educational content studied by children in schools. The hypothesis from which we started our study is the following: to know and to see these properties during the instructive-educational process, along side with learning all the different techniques to reach these properties, contribute to ecologically building up the personality of pupils, by forming a responsible attitude towards nature.

The Objectives of the research:

- to identify the attitudes of pupils towards the use of the properties which reflect the intrinsic value of nature in the instructive-educational contents of different disciplines: Environmental Knowledge, Crafts, Arts;
- the good use of the experimental procedures in different contexts so as to make them part of the pupils’ stock of information and attitudes which will be later on transferred into their daily lives;
- to build up an eco-centric mentality and a responsible attitude towards nature on what concerns the man-nature relationships which will correspond to a preventive ecological behaviour towards the present and future problems of the environment;
- to identify some psycho-pedagogical implications of some suppositions confirmed by the results obtained with the purpose to assure a better understanding of the relationships between man and nature and to improve the responsible attitude of pupils towards nature.
In the present research the experiment was used and the experimental scheme supposed a random selection of a sample called experimental, followed by the analysis of the results obtained. The sample was made up of 35 pupils - 2nd grade, 32 pupils - 3rd grade, 31 pupils 4th grade from No.28 School, that were all of the approximately same age and that were manifesting an increased interest in studying. The research activity took place in the first semester of the 2013-2014 school year, when pupils have studied in Natural Sciences, Geography, Arts and Crafts about the different components of the environment. Taking into account the age of the participants, we have tried to pinpoint among all the properties that reflect nature’s intrinsic values the followings: the aesthetic value, that of being a complex system and that of being a natural thing, contributing to building up a responsible attitude towards nature. These have represented the independent variables of the experiment.

By comparing the pupils’ ecological attitude from the moment of the final evaluation with the one they manifested at the initial test, we have notice an improvement in the way pupils relate to nature. All of these will be visible at the level of their mentality, of their attitude toward nature and in the way they will do their portfolio home works. These will make up the dependent variable of the experiment.

The three stages of the experiment have resulted into introducing during the classes of Natural Sciences, Geography, Arts and Crafts of some of the ecological ethics elements mentioned above in order to help reach the objectives of the ecological education and to overcome the purely intellectualistic manner of approaching the problem of the environment and of the relationships between man and nature.

So in the pre-experimental phase, during the Natural Sciences and Geography classes, the children have learnt the main forms of relief with their own vegetation and fauna, while in Arts they have painted different landscapes specific for each ari. During Crafts, they had to attend a class called “The trees in autumn” where with the help of dry leaves and plants the children have decorated a tree which was placed in an autumn scenery. Even if they were merely at the beginning of the experiment, during the debates, the children have shown their total interest for protecting nature either so as to have a healthier environment or just to enjoy the beauties of nature.

During the research, the experiment method was used to learn and to understand the structure of plants, the characteristics and the properties of bodies, their change and modify mode. During the experimental phase, the pupils have had to make an evaluation chart on the evolution of the plants that they have seeded (for the 2nd degree-wheat, for the 3rd degree- beans, for the 4th degree- tomatoes or peppers) by using the double entry journal. So, in the first column they had to write down the evolution stages and the cares they have offered to the plant, and in the second column they have had to put down the comments and the interpretations of the observations they have made by answering questions such as: “What did you felt towards plants during the experiment? What duties and responsibilities you have toward the plants you have seeded? What about towards those that were not seeded by you? What are plants for you? What role do they play in your life? What about in the life of other people?”.

Problem solving puts the pupil in the situation in which he has to solve a problem through his own investigative activity, which stimulates curiosity and urges him to research, developing operational schemes of divergent thinking. Here are some examples of the items used: what is the explanation to the fact that air – which is much less dense - determines destructions of the lithosphere, which is much denser, more resistant than all the other layers of the earth?, what are the measures which people would have to take if in a short period of time the fuel resources would end?, what are the consequences which this particular event would have on world’s economy?, argue, why does spring begin earlier in the Danube’s everglade?, why the temperature is lower at the peak of the mountain than in the plain, considering the fact that the earth’s warmth comes from the sun, and the peak of the mountain is “closer to the sun” than the plain? (Barna, Antohe, 2001). Problem solving was used together with learning through cooperation, which represents a set of training strategies which engages small teams of pupils to promote the interaction between colleagues when approaching study subjects. Learning through collaboration takes place when pupils work together, sometimes in pairs, other times in small groups, in order to solve a problem, to explore a new theme or to create new ideas, specifically to meet a common objective. This way, pupils have tried to find solutions to see how children can protect the environment and they have created poster on topics such as “Forest - the Green Gold of the Planet”, “Earth - the Home of Everyone” by combining the working techniques learned at Art and Craft classes.
4. Results and discussion

While analyzing the results of the pupils’ activity, we have taken into consideration a series of criteria, among which: the scientific fairness, the use of the aesthetic properties of the nature’s elements, the conjunction between the colours and the shapes, the correct use of the materials and of the working techniques, the pupils’ creativity, etc.

The result for the first home works that made up the portfolios, are not quite encouraging (7.15% have received an A mark, 76.53% a B mark and 16.32% a D). Among the week spots identified were: the scientific incorrectness, the negligent way of elaborating the papers and the fact that some of the papers were unfinished. On what concerns the following home works, the results were satisfying: the posters use fully the aesthetic property of the forest and they have promoted a protective and a responsible attitude – 19.39% contained aesthetic aspects alongside messages that disapprove the destructive actions upon nature and that encourage the preservation of nature; 78.57% pinpoint to the aesthetic value by presenting sceneries from different arias and seasons; and 2.04% have not delivered any home works; the paintings from the Crafts classes have proven the pupils’ interest towards the aesthetic properties of plants both by means of their selection of leaves and fruits of different shapes, colours and sizes and of the accuracy of their work, the good taste welding between different materials and also by using correctly the working techniques (over 85% of their works have met the criteria); in Arts classes, the pupils have valued the aesthetic properties of plants by combining with good taste different categories of colours, hues and tones, by means of the accuracy in elaborating their works, etc, and they have created beautiful sceneries that arose the admiration even if they were elaborated in a childish way (90% of the works have met the criteria). By analyzing the journals written by pupils, we have noticed that more than 65% of the subjects think that plants are beings which must be respected and towards which they have responsibilities and duties (especially towards trees – which play a special role in maintaining life – and towards the plants grown by man).

5. Instead of Conclusions

Taking into consideration the results obtained during the analysis of the pupils’ activities we can consider that our hypothesis proved to be right and therefore in education there must be interdependence between knowledge, believes, attitudes and behaviour. In building up the moral-ecological conscience and behaviour of children of a small age up until the school age, it is necessary to follow up all of these steps that will be reflected in an adequate behaviour from the part of children in their life and social activities, in their relationships with others and also with nature. This last one will be illustrated by showing a certain attachment towards plants and animals, towards everything which makes up nature. The dominance of the report between internal and external in the building up and the development of the ecological attitude are reversely proportional with the age. This means that if the child is smaller of age, than the social dominance will be higher because of the fact that the child observes and imitates the facts he sees around him. Later on he will be able to understand the importance of these deeds. Only by means of action will the ecological knowledge be transformed into ecological convictions. At this age, firstly the pupil explores the attitude and the behaviour of the people (adults) towards nature and only then he will focus upon the actions of other children (that have the same age as he does) and of his own, by analyzing the negative and the positive learning experiences, both his own and of others (Caciuc, 2013, p. 122 – 127). A special role in building up pupils from the ecological point of view is the teachers’ own attitude towards nature, an attitude which is reflected in the influence they have over the mentality and the personality of their pupils. We agree with D. Jeder when we states: “The teacher’s ethical responsibilities, beyond reporting to a general set of rules and codes, mean the ability to find suitable solutions for particular situations, to display behaviours that are consistent with the beliefs of the achiever and to live the moral values, not just to declare them” (Jeder, 2013, p. 436). The use of the pupil centred educational strategies, together with the introduction of the ecological ethics messages, will allow the development of a new philosophic system of life manifested at an individual level, in which nature will play an important role as per its moral significance.
References