
ACTIVE METHODS OF ENVIRONMENTAL EDUCATION OF SECONDARY SCHOOL STUDENTS IN THE SYSTEM OF INFORMAL EDUCATION OF THE KINGDOM OF SWEDEN



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Abstract. In the article the methods of environmental education of secondary school students in the informal education of the Kingdom of Sweden are researched. The author analysed the experience of environmental education of the secondary school students in the informal education in Sweden through the prism of its possible application in the out-of-school education of Ukraine. The author made conclusion that the Swedish environmental organizations play an important role in the environmental education of secondary education pupils. The mission of the organizations is to teach students to take care of nature, save Swedish flora and fauna. Such organisations are actively involved into the educating students to implement their environmental knowledge in practice. Such organisations are the key players in promoting environmental education in the informal education to form the readiness to environmental activities among children and youth. The informal education of the Kingdom of Sweden is characterised by the unique opportunities to develop a system of environmental values and readiness for environmental activities among students. The author made conclusion that the experience of the Kingdom of Sweden in environmental education is of interest for the out-of-school education in Ukraine.

Key words: environmental education, informal education, pupils, secondary education, the Kingdom of Sweden, Swedish environmental organizations.

INTRODUCTION

Nowadays the integration of Ukraine into the European educational space requires Ukraine to modernize the content, forms and methods of environmental education according to the European standards. That is why the environmental education of an individual is determined by one of the leading tasks of the modern educational policy of Ukraine. Reforming the Ukrainian educational education system, making changes of the legislative base, transformation of the curricula and methods of instruction is aimed to synchronise it with the European standards.

LITERATURE REVIEW

Environmental education is one of the factors affecting the rethinking of a personality's values, promoting uniting people to prepare for environmental activities and follow the principles

of sustainable development. Sweden has become one of the leading ecologically clean countries in Europe thanks to the ecologization of citizens' thinking and behaviour. Undoubtedly, Sweden's experience is valuable for changing the behaviour and attitudes of people towards the environment, and improving the ecological situation in Ukraine as well as to build a sustainable development society.

The author studied the works of the following Swedish educators: E. Dnnggerd. "Making Use of "Nature" in an Outdoor Preschool: Classroom, Home and Fairyland. Children, Youth and Environment (2010); J. Robertson "Swedish Forest Schools. (2008), etc. Besides, the results of a number of environmental projects were analysed to present the innovative methods of the environmental education of students (Baltic Marine Litter Project; Green Circle Schools Development Project, etc.).

The purpose of the article is to study the active methods of environmental education of secondary school students in the informal education of the Kingdom of Sweden.

METHODOLOGY

The conducted research is a qualitative one. The analysis of the works of the Swedish scholars as well as the analysis of the findings of the environmental projects implemented in the informal education sector was applied. The method of generalisation was used to generalise the innovative ideas and practices used in the system of informal education of the Kingdom of Sweden.

MAIN RESULTS

Covering the problem of environmental education in informal education the experience of the European countries is of significant interest due to the significant progress in this direction. Sweden is one of these countries. It should be noted that work on the development and dissemination of environmental knowledge was carried out before Sweden became a member of the European Union. A high level of environmental culture contributed to the implementation of progressive initiatives in the environmental sector. Sweden became the first country to proclaim the sustainable development initiative and initiated the first UN conference on the environment. Since then, it has been actively collaborating with the United Nations and other international organizations in finding alternative solutions to environmental challenges.

It is indisputable that considerable attention is paid to the formation of readiness to environmental education in students in the informal education of Ukraine and in Sweden. It should be noted that the process of forming students' readiness to environmental activities should be bilateral and requires appropriate changes and efforts, both at the state level and development of the individual.

Sweden experience in educating students of secondary level of education the readiness to environmental activities in informal education points to the need of greater cooperation, unification and coordination of the three parties: the state, the public and the private sector. Considerable attention should be paid to community and volunteer organizations, which direct their activities towards the formation of adolescents' readiness to environmental activities.

The analysis of scientific and methodological literature shows that in European countries, in particular in Sweden, public organizations are actively involved in the process of optimizing out-of-school education and the formation of students with an average degree of readiness to environmental activities. These are voluntary associations of citizens that arise in accordance with activities to satisfy and protect their multifaceted interests and requests and act in accordance with the objectives and purposes set forth in their charters.

One of these non-governmental organizations focusing on solving environmental problems and forming students of secondary level of education the readiness to environmental activities in Sweden is Keep Sweden Tidy Foundation. This organization collaborates with many Swedish educational institutions and implements environmental projects that educate students about the environmental problems of Sweden and encourage them to solve them.

The waste problem, which is quite acute for Ukraine, became the topic of a project in Sweden. The project's organizers proposed to build a waste city to children, they built a processing plant and houses, as well as dough for moulding and ice cream sticks. The organizers tried to capture in the minds of students that it is impossible to throw garbage anywhere and also that goods can be reused. When the city was built, there was a lot of garbage from which the organizers decided to make paintings.

Students from another Swedish school took part in a "Consumption" project. The idea of the project was educating students to consume things economically and give them a second life.

The "Keep Sweden Tidy" Foundation together with Pilgrim School worked on the problem of household waste, including composting. Students put the leftovers of food in the compost tanks, and then watched the processes that took place there. Subsequently, the children saw that the waste turned into a soil that they transferred to a place where they later grew vegetables and flowers, caring for them independently (The Keep Sweden Tidy Foundation, 2009: p. 24).

The Swedish Fund "Keep Sweden Tidy" introduces many environmental projects, not only in Sweden. A significant number of Swedish schools work under this environmental programme as it meets all UNECE standards. The following modern approaches are implemented for the students within the idea of sustainable development and environmental behaviour: active teaching and learning, development of a critical thinking, integration, dynamism, multidisciplinary approach, use of modern ICT, the problem-oriented teaching, project-based teaching, etc. For instance, the project "Ecologic" applied the following forms and methods of education: a fun cognitive game; research that students conduct on their own; discussions in which students learn to formulate, express and defend their own point of view or their values independently; group work on solving problems (Ryabova, pp. 18-22).

The Baltic Sea is washed away the banks of nine European countries, and it is difficult to maintain its ecological purity. Therefore, the Swedish organization "Keep Sweden Tidy" together with the environmental organizations of countries that have access to the Baltic Sea, introduced the MARLIN project. This project was aimed to reduce sea litter on the banks of the Baltic Sea. During 2012-2013, there were three cleaning events along the Baltic coast for garbage collection. In order to prevent the emergence of garbage on the Baltic Sea coast, environmental organizations from countries that have access to the Baltic Sea carried out educational initiatives among families and children. They organised water festivals, seafloor days and the festival of coastal folklore. The organization of concerts of classical music and the creation of creative workshops for children proved their selves both interesting and instructive.

Club 4 H of Sweden is an international youth organization that was founded in Sweden. The club is focused on the education of a responsible person with respect to the environment. The first H (Head) is a symbol of knowledge. Increasing interest in lifelong learning, knowledge and understanding of the surrounding world (nature and its resources) is the basis of the first component of the club's activities. But gaining theoretical knowledge should be supported by the use of this knowledge in practice. As the problem of pollution of the Baltic Sea with plastic is rather acute, the MARLIN environmental organization has collected the results of activities of the countries located on the coast of the Baltic Sea and shot the film about the damaging effects of plastic for the Baltic Sea and the inhabitants of the coastal countries. Clubs for children are quite common, where they learn about the negative effects of garbage disposal at sea and on the coast and help to clean the Baltic Sea (MARLIN, 2013).

Club 4 H of Sweden pays considerable attention to understanding of the children the world around them, an understanding of the role of plants and animals for society. Children visit farms that work in or near the club. While walking to the woods, they are looking for animal tracks, studying the names of trees and plants, and find out what they are used for. In addition to knowledge and understanding of nature, children learn to use the things that surround them best. They explore and study plants that can be eaten and can be used to shelter from bad weather. Children will learn how to use animal meat for food and their skin fur for clothing. Thus, the knowledge of the rules of interaction with nature and their cultural heritage is constantly replenished (The 4 H of Sweden, pp. 4-5).

The next part of the club's activity is H (Heart), which symbolizes humanity and respect for people, animals, and nature. Since the club has farms, children are trained in handling animals.

The experience they receive on the farm affects their personal development. Being found among animals, children feel not only pleasure but also respect for those with whom they live in this world. Many classes in the club are held in the woods, in the nature. For animals, feeders are produced and their lifestyle throughout the year is studied (The 4 H of Sweden, p. 8).

Thus, it should be noted that Club 4 H of Sweden is an important and useful organization for the Swedes, because it not only arranges knowledge, skills, but also helps to solve important environmental problems of the society.

The Ecological School is a striking example of an organization that teaches children and adolescents in two programs: life cycle and waste recycling. To this end, secondary school students are offered to create a cartoon about life cycles of products, various environmental games and garbage sorting testing competitions. An excursion to the recycling centre and the exhibition on sustainable use will best familiarize students with these processes and equip them with knowledge on garbage recycling and reuse of things. In order to learn about the possibilities of reusing things and ways to prolong life in practice, students are encouraged to make useful things from the material used (Environmental School of the Helsinki Metropolitan Area Reuse Centre).

Mass media, in particular, advertisement of directions and forms of activity play an important role in the formation of adolescents the readiness to environmental activity, in order to attract people interested in forming students' readiness to environmental activity. Swedish Central Television pays enough attention to environmental programs. So, the program "Jjttteiden tuotannon matkaan" (a journey from production to waste) for children takes place twice a week, which forms children's behaviour rules aimed at a low-level attitude to nature (Swedes and nature).

In Sweden, not only television plays an important role in educating the students to readiness to environmental activities. Fiction clearly and clearly highlights the environmental problems of Sweden and the ways of their solution, preparing children for environmental activities. One such book is the detective story "The First Case" by Ulf Nilsson. The main character, the Frog Inspector, follows the order in the wood and protects the forest and its inhabitants from danger and damage (Warnqist, 2013).

The state should make a significant contribution to the implementation and development of such activities. In Sweden, all conditions are created for the formation of students with an average degree of readiness for environmental activities. There are special schools (Schools of Nature, Forest School) that are aimed at forming students with an average degree of readiness to environmental activities, and the creation of such schools in Ukraine is promising.

Forest schools arrange the child to learn about nature by attracting baby receptors: touching something, sniffing, tastes it, look, listen and compare. The types of activities of the forest school are designed for different age groups of children, but the main goal of the school is to receive satisfaction from the proposed activities. For high school students, the school offers, besides walks through the forest, canoeing and meeting with friends at the fire. Children also learn to cook food at the boat, navigate through the compass in the woods, and go skiing (Frilufsarna).

It should be noted that surviving in the forest is not the dominant activity of the forest school. Learning through the game is organized by other methods. This includes active games, environmental education games, educational environmental stories, memory development games using natural objects (Robertson, 2008).

The teachers of Sweden have widespread the idea that the knowledge of nature begins precisely in nature. The best learning outcomes are achieved when all types of feelings are involved. This method is used in the School of Nature in Sweden. School teachers work together with students to explore and study, observe and draw conclusions, discover and understand, experiment and solve problems. Children study nature in all seasons. When visiting some kind of place in the nature, children return to it every season, observing the processes and changes that occur during this period, the behaviour of the inhabitants. Students leave signs with the records of the things they saw there, and then, coming to another time of year, they observe what happened to them. Thus, they study natural cycles and discuss them (Änggård, 2010).

The study of nature, its problems and ways of solving in the School of Nature is also thematically. In conducting the event, the leader chooses the topic of research. For example, it is butterflies. Students study butterflies in books and in nature, play games, imagining themselves as a butterfly, creating and discussing drawings of butterflies. The project ends with a discussion of what they know about butterflies. Thus, students learn about butterflies: their structure, place of residence. Separate species that are on the verge of extinction are studied.

Since the main kind of activity in the School of Nature is the game, the nature is presented to children as a fairy tale, where the forest inhabitants are endowed with human qualities and they bring their problems to the students, discuss ways of their solution together with them (Änggerd, 2010).

The “Friends of Earth Sweden” is a non-governmental environmental organization in Sweden, which aims to protect the environment from environmental problems. In its activity, “Friends of Earth Sweden” uses various forms and methods of environmental education. These are information campaigns on solving day-to-day problems (climate change, product quality, agriculture, etc.) on issues of state and national environmental policy (Vanner, n. d.).

The Green Circle schools organize environmental projects, help children to know and love the environment, and realize the importance of preserving the environment in their lives. Health is one of the sectors the children are working on, and School Olympic Games project is one of the projects the schools implement to form interest to various sports. Active methods of forming the ecological consciousness of students are important levers that raise the students’ interest in environmental issues. “Earth Week” is another project organized by the school. During the whole week, various environmental events, geographic exhibitions, and the production of various toys from re-used material are organized at the school.

The action “Clean Meine” is organized as part of the Earth week in the Swedish school Krants. It is a river on the shore of which there is a school. The peculiarity of this kind of collective work is that between the educators and pupils in the process of such work, the subject-subject relations are formed, by virtue of which the teacher and the student equally feel responsible for the performance of the task.

In addition, students studying water in the spring and autumn are studying the collected garbage, compare the results of research from year to year, and publish them in the local press (Green Circle Schools Development Project).

CONCLUSIONS

The informal education of the Kingdom of Sweden has unique opportunities for the formation of a system of environmental values and readiness for environmental activities among

students. The conducted study allowed us to substantiate the forms and methods of environmental education of secondary school students in the informal education of the Kingdom of Sweden, providing a high level of environmental consciousness of students. The experience of the Sweden in environmental education is of interest for the out-of-school education in Ukraine.

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