

# Implementation of environmental education in the context of socio-economic development of municipal areas

Irina Kosinova<sup>1\*</sup> and Tatyana Korzh<sup>2</sup>

<sup>1</sup>Belgorod State National Research University NRU BelSU, 85 Pobedy str., Belgorod, 308015, Russia

<sup>2</sup>Sevastopol State University, 33, Universitetskaya Street, Sevastopol, Russia

**Abstract.** Eco-friendly processes are sustainability, environmental economics, natural resource management, referring to guidelines and policies that claim no harm upon the environment or ecosystems. The peculiarities of the current situation with the environmental crisis require careful study of not only the technical means of overcoming it, but also taking into account the “human factor”. The purpose of the study is to analyze means of environmental education realisation by psychologists of leading universities in Sevastopol. The implementation ways of Sevastopol socio-economic development strategy until 2030 in the field of environmental education are presented using “Forum theatre” example. In addition to the description of current state of given issues the study was conducted at Sevastopol State University in order to estimate students’ level of environmental education. To help the educators implement a competency-based practice-oriented approach in the process of ecological education the authors presented ‘Forum theatre’ as a method of interactive work among different segments of society aimed at solving social problems. In conclusion it was noted that «Forum theatre» could contribute to sustainable development as a balance between achieving a high level of economic prosperity, social security with mandatory conservation of the state’s natural resources and the environment.

## 1 Introduction

Environmental education is referred to a process of lifelong learning, focused on the acquisition of systematized knowledge about the environment, the formation of a relationship between theoretical and practical knowledge, values, behavior and activities that ensure a person’s responsible attitude towards the ecology and environment, namely ecological personal maturity.

The rapid society development requires the search for solutions that can increase efficiency of environmental education. The peculiarities of the current situation with the environmental crisis require careful study of not only the technical means of overcoming it, but also taking into account the “human factor”.

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\* Corresponding author: [steba1971@mail.ru](mailto:steba1971@mail.ru)

In strategy of Sevastopol socio-economic development in the field of environmental education until 2030 (paragraph 5.8. Environmental policy) the most important issues of state environmental policy in the city are analyzed [1]. Due to the special natural and climatic status of the city of Sevastopol, the use of technological solutions for environmental conservation must meet the most stringent environmental standards [1].

We believe that every city resident should take an active part in solving the identified problems in the strategy. Lecturers from leading universities offer their ways and means of promoting environmental safety. University psychologists have contributed to the development of environmental education by proposing their own methods of solution.

At the same time, there are technical and technological solutions to the issues of the environmental crisis that are not implemented at all. The reason for such problem is considered to be the lack of a special personal system of relationships and values, aimed at the entire world around them and going beyond the boundaries of “Myself”. This complex is called the ecological consciousness or ecological personal maturity.

During the university training period it is common to make plans for the future, as well as a choice in favor of a potential profession, develop and improve in this direction that forms a sense of identity [1]. Students’ educational and professional achievements are significant, which contribute to the formation of confidence in their capabilities in future activities, and also confer the basis for successful self-realization.

The major aspects of personality growth during student years is personal maturity development, which is the fundamental condition for successful self-realization in the future [2].

Studying at a university requires the ability to independently organize educational activities, which is a necessary condition for the successful acquisition of knowledge.

During the university training period, future ecologists’ skills and ability to rationally organize mental activity are formed, the vocation for self-determination is realized, and a system of important personality qualities is established.

An important feature of personal development during this period is the formation of a personal construct of maturity, manifested in readiness to function in the world, and self-determination by means of the value system. The level of formation of mental and social maturity is the basis for identifying personal maturity [3]. Students are distinguished by the highest educational level, the most active consumption of culture and a high level of cognitive motivation [4].

Representatives of the first approach consider ecological personal maturity from the point of view of age periodization. Members of the second approach study ecological personal maturity as a qualitative characteristic of an individual’s development.

Clyde Sullivan, Grant Marguerite Q., Grant J. Douglas consider a basic core structure of personality. Personal maturity is the level of development of one’s personal properties, abilities in the context of social interactions [5]. They described psychological development in terms of successive levels of integrations of: “separateness, nonself differences, rules, conflict and response, continuity, self-consistency, and relativity, movement, and change” [5, p. 373]. Each integration level should be considered in terms of “developmental aspects, general characteristics and problems of adults who have remained at specific levels, and character and problems of the delinquent integration at these level” [5, p. 373].

K.A. Abulkhanova-Slavskaya also denies the age-based approach to personality maturity. One should pay attention to her statement regarding the relationship between personal maturity and one’s life. K.A. Abulkhanova-Slavskaya writes in her book “Life Strategy”: “the age approach focuses primarily on comparing all ages, without taking into account the different lifestyles of individuals within each age. One can become a mature person at a fairly young age, but remain immature in old age” [6, p. 21]. Indeed, such a

phenomenon and its examples in the modern world find a lot of confirmation of the scientist's opinion.

Representatives of different eras, social minorities, members of different professions put various content into the concept of maturity. Ones of our time, scientists say that they are characterized by a certain level of development of human consciousness, their assessments and judgments, regulation of actions, attitude to the surrounding reality, people in the process of inter-individual connections, regulated norms of behavior put forward by society to an adult. P. Jacobson writes that "personality maturity is social one that is expressed in how adequately persons understands their place in society, what is their attitude towards society and social institutions (moral norms, rights, social values), to their duties, work" [7, p. 141].

The concept of "environmental concern" is popular among foreign studies (Schultz, Piskoti, Dunlap, Amocky), which pay attention to the empirical study of the characteristics of environmental consciousness and attitudes towards nature. Until now, no particular importance has been attached to the problem of the relation between environmental consciousness and personal maturity as a systemic personality quality that integrates all age-related changes.

## 2 Materials and Methods

The subjective of the study is to analyze aspects of ecological personal maturity in terms of environmental education. The role personal maturity in ecological education is described.

The structure of ecological personal maturity includes an ecological component in the form of nature-centric ecological consciousness. The object of the study is ecological personal maturity of students.

The subject of the study is practice-oriented approaches to environmental education for university students in the context of sustainable development goals implementation.

The following research objectives are:

1. To conduct a theoretical analysis on the problem of ecological personal maturity.
2. To describe possible practice-oriented approaches to environmental education.

To test the hypotheses and solve research problems, the following methods were used in the work: theoretical analysis of scientific sources - analysis of psychological literature on the topic of research, systematization, generalization and synthesis of the scientific ideas contained in it.

The certain concepts are the theoretical and methodological basis of the study: personality maturity theory (K.A. Abulkhanova-Slavskaya, P.M. Yakobson, S.D. Maksimenko, L.V. Potapchuk); phenomenon of perfectionism (F. Nietzsche, S. Freud, A. Adler, M. Holender, D. Barnes, R. Frost, K. Adkins, L.A. Danilevich, N.G. Garyanyan, A.B. Kholmogorova, I. Gracheva, B.M. Teplov). William A. Reiners, Derek S. Reiners, Jeffrey A. Lockwood consider traits of a good ecologist [8]. They study the relationship between environmental advocacy, values, and science [9].

## 3 Results

A relevance and necessity of ecological education are beyond doubt as education for sustainable development is widely used by specialists involved in environmental issues, economics and education for all levels.

At the stage of modern society development, people's attitude towards nature have assumed such proportions that this interaction leads to the full involvement of the biosphere in the life support of our society, so humanity is bound up with environmental disaster.

Environmental knowledge could end the negative consequences of spontaneous events development. Ecological problems should be of interest to all people. This can be achieved through environmental education, in our example – in the conditions of professional training in institutions of higher education.

Representatives of different approaches consider ecological personality maturity as a person's desire to work, creating something useful and valuable, and the desire to love another person for their sake. K. Jung defines a person's wish to work towards the process of "individuation" maturity, when a person begins to realize their original and complete essence, purpose [10].

A person with responsible attitude towards the ecology and environment is one who believes that the environment and natural resources should be preserved and used in a sensible way. To develop ecological personal maturity ecologist, one needs: a desire to protect the environment (with a balanced approach to the issues); an inquisitive mind; to be patient, accurate and methodical in doing experiments ; communication skills.

Ecologists generally "agree on the traits they would expect for a good tax accountant, physician or attorney. They would expect relevant skills, professional experience and ethical performance" [8, p. 2]. To be a responsible person is influenced by "their individual perspectives as well as self-actualization. Furthermore, their perspectives are linked to their experiences, education, training and the nature of their particular practice of ecology" [8, p. 2].

The concept of "self-actualization" correlates with ecological personal maturity, i.e. with the development of the personal capabilities of each individual, self-improvement in the sphere of life, as well as the realization of their potential in the professional field - ecology. That is, the concept of a "personally mature individual" can be considered as "a person who has reached an effective level of functioning" self-awareness of our own value systems.

In his pyramid, the "need for self-actualization" is the highest level of human needs, A. Maslow attributed to: personal maturity, "psychological health," "psychological maturity", its high psychological culture, sufficient education and sociality [11]. For every person, achieving self-actualization is to obtain the highest level of human needs – personal maturity. We agree with P.Ya. Hal'perin that the determination of the degree of person's ecological maturity is established in the ratio of the assessment of one's actions in the system of relations necessary in a given society, according to the indicators of how well a person copes with the activities intended for them [12].

The practice-oriented approaches in education can contribute to sustainable development as a balance between achieving a high level of economic prosperity, social security with mandatory conservation of the state's natural resources and the environment. By ecological personal maturity B.G. Ananyev understood self-control and the acquisition of adequate reactions in ecological situations of a person's life [3]. "It is characteristic of a mature personality not only to adapt to any environment, but also to actively shape this environment in accordance with one's individuality" G [3, p. 71]. He called this space as "one's own development environment," and pointed out that personal maturity includes three components:

- 1) personal component, which includes: the value system, orientation, motives of the individual;
- 2) the reflexive component contains the achieved ego identity;
- 3) functional, that is, the ability to self-organize.

In addition to the personal, reflexive and functional components, the structure of ecological personal maturity includes an ecological component in the form of nature-centric ecological consciousness.

The criteria for manifestations of ecological personal maturity of students are: interpersonal activity, self-regulation, independence, creativity, intellectuality, interpersonal constructive activity, communication, tolerance, morality, responsibility, ego identity, self-acceptance, self-actualization.

## 4 Discussion

During the process of environmental education, a person develop one’s own system of values, goals and beliefs by means of ego-identity, which determine mature forms of personal self-regulation, the presence of internal self-reliance and provide a sense of meaning and direction during lifelong learning, focused on the acquisition of systematized knowledge about the environment, the formation of a relationship between theoretical and practical knowledge, values, behavior and activities that ensure a person’s responsible attitude towards the ecology and environment.

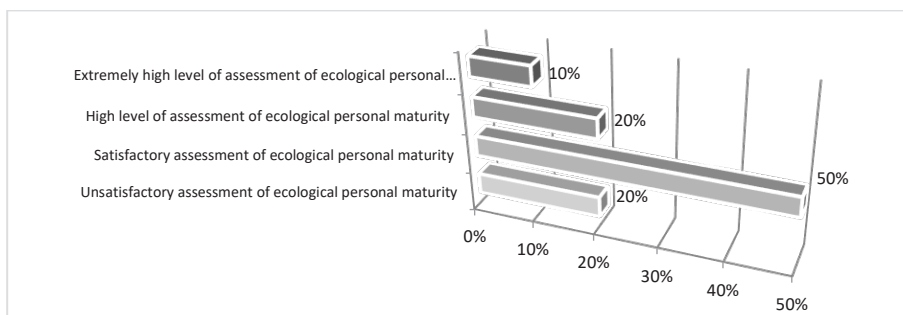
The phenomenon of ecological personal maturity is a complex multidimensional phenomenon. All formed components can obtain various levels of formation in their development. In the philosophical encyclopedia, it is considered through the concept of a moral ideal. In the process of formation of readiness for professional activities, a significant role is played by attitudes, expressed in self-improvement, constant personal development and self-actualization. Achievement of motivation is considered as “the desire to compete with oneself (self-excellence) in achieving higher results”, the technique of success and failure, the ability to effectively plan goals [13].

Transformations of the intellectual system are carried out under the influence of numerous factors. One of them is professional and educational activity, which determines the high level of the intellect [14].

It should be noted that in the sphere of interpersonal interaction during the university education two polar directions appear, among which, firstly, the expansion of the area of communication with other people and the increase in the number of interpersonal contacts, and secondly, the increasing desire for individualization.

The changes that occur at this stage, namely the formation of person’s ideological positions, focus on the future, as well as their achievement of values of creative abilities, which determine the desire for self-realization in professional and interpersonal spheres, can contribute to students’ ecological personal maturity formation [15].

In order to estimate students’ ecological personal maturity we conducted the study at Sevastopol State University in May 2023. The obtained results of the method of Yu. Z. Gilbukh are clearly presented in Figure 1 (in per cent). A sample is 2nd-3rd year students (30 people) took part in the study.



**Fig. 1.** The results of the method of Yu. Z. Gilbukh

Based on the results obtained, we can conclude that when diagnosing ecological personal maturity using the Yu.Z. Gilbukh questionnaire [16], it was revealed that 20% of the sample (6 people) was characterized by an unsatisfactory assessment of ecological personal maturity. 50% of the sample (15 people) had a satisfactory assessment. A high level of ecological personal maturity is characteristic of 6 students (20%) and very high or extremely high for 3 students, which is 10% of the entire sample. This suggests that such students quite often act as initiators and have adequate self-esteem. Such people, as a rule, are professionally responsible and interested in socio-political activities. In difficult situations, they do not give in to emotions, unlike students with a satisfactory level of personal maturity. Developed ecological consciousness, expressed in adequate self-esteem, individual's nature-centric position, and personal maturity form a system of a higher order, which should be most accurately defined as "ecological personal maturity".

Today a character of the educational process, as well as the methods of activity of the teacher and students in it are changed. Practice-oriented approaches in education are of high priority. They can contribute to sustainable development as a balance between achieving a high level of economic prosperity, social security with mandatory conservation of the state's natural resources and the environment.

Universities should realize innovative methods of popularizing ecological knowledge, for an example by mean of a 'Forum theater' that can involve the audience in the process of showing the production, and the actors themselves develop professional competencies such as empathy, communication skills, the ability to express their point of view, argue for it, and work with different target audiences.

The state of the environment affects the past, present and future person's well-being and society. Consequently, environmentally-founded interaction is another important direction for students' development and their achievement of ecological personal maturity. A nature-centric position should be associated with the ecological maturity of an individual, supposing the equivalence of nature as compared with man and mediating the pro-ecological behavior.

It is possible to create a complete image of the basic concepts related to ecology by means of theater. This kind of activity is the highlight of the entire educational process, because students are direct participants in it and create their own product.

The number of performances is unlimited spectators, because these ones are held on the streets, during various events, in small and large halls, that is, they are mobile in nature. The experience gained in recent years has made it possible to implement 'Eco-Theater project', 'Planet Family Theater', and 'We are Against Violence'.

Forum theater provides an opportunity not only to understand the problem and form a person's attitude towards a negative phenomenon in the context of the environmental crisis, but also to gain skills in finding ways to solve the problem using one's own experience and one's of other people, including the capabilities of the subconscious and emotional intelligence.

Forum theater is a method of interactive work among different segments of society aimed at solving social problems. The forum theater technique can be used in various situations for different purposes: to help change society's view of an ecological problem, the behavior of members of society in relation to ecological personal maturity, or to influence on authorities in order to improve legislation and make specific necessary decisions on local level concerning ecological issues.

Forum theater is applicable to working with local governmental officials – people who must help them solve problems. These are workers in the field of ecology, education, law enforcement agencies, doctors, social workers, civil servants, and employees of the Ministry of Emergency Situations.



The technique of the forum theater is creativity, but there are certain principles laid down by the founder of the forum theater, Augusto Boal, that must be observed. Principles of forum theater by Augusto Boal [17]:

- Clarity in the presentation of the plot.
- A clearly defined protagonist.
- Forum theater is not therapy, but it can have a therapeutic effect.

Forum theater performance should evoke an emotional response and initiate a discussion about how to resolve the situation.

- It must be believed.
- It must be able to change.
- Ideally, clear points for intervention.

The essence of Forum theater is a joint search with the audience for a solution to a problem and a way out of a difficult life situation. During the performance, the audience will learn a well-known life situation to be resolved. The script for the performance itself can be prepared in advance by the theater troupe, or they can be prepared and exercised by the participants themselves during practical training, depending on the desired result.

Thus, the forum theater is based on the practice-oriented approaches that contributes to the formation of both ecological personal maturity and basic professional competencies in general.

## 5 Conclusions

In order to summarize, it should be emphasized that the most important issues of state environmental policy in the city are considered to be technological solutions for environmental conservation which must meet the most stringent environmental standards. It is admitted in Sevastopol socio-economic development strategy until 2030 that every city resident should take an active part in solving the identified problems in the strategy. University psychologists have contributed to the development of environmental education by proposing their own methods of solution. In the course of the empirical study, it was revealed that a half of respondents had a satisfactory assessment of ecological personal maturity. That's why psychologists proposed their own way of deciding the problem of ecological education. Working with young people using the "Forum theater" method required constant improvement of techniques for disseminating information and attracting new like-minded people, searching for new methods of social work, and ways to influence the target audience.

The means and techniques of interactive theater not only influenced the consciousness of the audience, but also formed their active position at the emotional and behavioral levels of the 'actors'. Interactive theater was able to create an effective model for conducting preventive activities at a new quality level in the context of ecological education in order to implement sustainable development goals.

Forum theater is applicable to working with local governmental officials – people who must help them solve problems. These are workers in the field of ecology, education, law enforcement agencies, doctors, social workers, civil servants, and employees of the Ministry of Emergency Situations.

The use of technological solutions for environmental conservation has to meet the most stringent environmental standards due to the special natural and climatic status of the municipal areas.

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