

Formation of an Adolescent's Agency Through Interaction with Natural Environment: Theory and Findings

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Abstract—The article deals with the problem of the formation of a teenager's agency through interaction with natural environment. It specifies some theoretical approaches to the conception of the actor and personal agency. The actor is viewed as a cognoscitive and active individual, interacting with the world around including nature and society as cognitive objects (non-ego) and objects of transformative activity. Agency is regarded as an actor's ability to be an active source in interaction with natural environment among other things. It is stated that teenagers' agency is characterized by positive motivation and practical possibilities for the implementation of environmental activity, by positive emotional and reflexive attitude to natural objects. The article presents stages of teenagers' agency formation through interaction with natural environment. They are "an observer", "a subworker", "a learner", "a master", "an expert", "and a creator". The research findings based on exploring teenagers' agency in course of interacting with natural environment in summer recreation camp are presented.

Keywords—*adolescents' agency; interaction with natural environment; stages of agency formation; ecological practical training and nature adventures*

I. INTRODUCTION

The formation of teenagers' agency is a complicated and multi-faceted process. The success of the process accounts for their ability to treat other people in an active and selective way and is the crucial condition of their personal becoming in the natural world.

Interests of modern teenagers are greatly influenced by contemporary socio-cultural environment. They give up real interpersonal communication in favor of virtual and socialize in the virtual world which is indirect and mediated by information and computer environment [1]. Besides mass media promote consumption-oriented lifestyle, of the first part they encourage craving for wealth, material security and comfort no matter at what price it has been gained (to the injury of nature), of the second part the cultivate dependence, infantilism, and, consequently, the lack of responsibility before the society and the nature as well. It often leads to inner disorientation of the child and the desire to find more important objects and subjects of interaction that would

satisfy their self-actualization need, need for identity and meaning-making.

Thus the problem of actualization of a teenager as a subject of interaction with the natural environment is definitely crucial [2] [3].

II. THEORETICAL ASPECTS OF THE PROBLEM OF THE FORMATION OF A TEENAGER'S AGENCY THROUGH INTERACTION WITH NATURE

From a philosophical point of view the subject is ever knowing and acting individual, interacting with nature and society as objects of cognition and transformational activity. Psychology describes the subject (actor) as an active reality changer realizing their potential through "their deeds" whilst the subject (actor) is viewed as a unity of all the qualities of a human being (natural, social, community, individual, etc.) [4] [5]. Pedagogics considers the subject (actor) to a greater degree to be the one who reveals oneself through educational activity (the subject of studying, the subject of professional education, etc.)

Natural objects can as well be presented as subjects. Philosophers give ground to the possibility to perceive natural objects as subjects. Representatives of wildlife (like animals, plants, seas) can become man's partners in the process of communication, if people transfer their own spiritual qualities to them and anthropomorphize them [6]. Thus a subjectified natural object is able to influence the process of forming the image of the world by a human being and play a role of a significant other [7].

The ability to be an actor (subject of activity) is defined as "agency". Psychologists draw attention to the following characteristics of agency, which are being formed in adolescence as well: the ability to self-organize their own mental and personal capabilities in the process of activity; individual way of carrying out activities; the ability to transform the externally specified conditions [8]; the ability to recognize committed actions as independent moral acts for which a person is responsible to himself and the society [9]. Considering the agency of children in the system of additional education, T.N. Guschina, describes it as an integrative quality of a personality in the format of the

development of its components, which manifests itself in the actor's ability to reflect; in his ability to make cognitive choices; in the formedness of axiological attitudes [10].

At the same time, the formation and development of a person is impossible if isolated from an integral system that unites man and the world around him [11]. A meaningful subject-genesis of a person can't be considered only through his social actions, it should also be looked on in terms of his auctioning in the natural world. Researchers also associate the adolescent's agency with different methods of ecological and psychological interactions with the natural environment - with non-living objects representing it and with living beings [12].

III. STAGES OF FORMATION OF A TEENAGER'S AGENCY IN INTERACTION WITH NATURAL ENVIRONMENT

The agency of a teenager in interaction with the natural environment is a complex integrated characteristic of the personality of a teenager, manifested in his ability to treat natural objects both actively and selectively, initiatively and responsibly and in a reforming way. It is characterized by the fact that an adolescent has positive motivation and practical opportunities to carry out environmental activities, positive emotional and reflexive attitudes towards natural objects, ensuring the active character of interaction with the natural environment. In the end, the teenager, gaining the experience of subject-subject interaction with the natural environment becomes a responsible subject of environmental activities.

The process of formation of the agency of a teenager in interaction with the natural environment passes through certain stages. V.I. Panov and his fellow workers identified six stages of agency, which we used to study this process [13] [14].

The first stage is the "Observer", who is no more than the subject of perception of certain patterns of environmental action that the adolescent is watching from the outside. This allows the teenager to create appropriate images of environmental actions, but for the time being does not lead to their independent implementation.

The second stage, the "subworker," is fixed on the basis of the perceptual model of ecological action obtained earlier, which enables the adolescent to imitate this action. But at the same time, a meaningful awareness of the meaning of this activity is missing; the ability to check its accuracy is not formed either.

The third stage is the "learner". The adolescent consciously performs the studied samples of ecological actions, but he still needs external control in order to understand the appropriateness of their implementation [15].

The fourth stage, the "master", is different from the ones mentioned above as the adolescent not only has the ability to perform independent environmental-oriented actions, but is also able to control internally the appropriateness of their implementation. The subject is capable of voluntary correction of his activity when some deviations from the sample appear.

The fifth stage, the "expert", gives an individual the opportunity not only to perform certain actions independently and effectively, but also to act as a controller of the quality of the environmental activities of other people, appraising it properly.

And the last sixth stage - the "creator" - allows the teenager to turn the mastered ecological actions into the means of further development of him, realizing the creative activity of his personality.

IV. RESEARCH OF FORMATION OF A TEENAGER'S AGENCY IN INTERACTION WITH NATURAL ENVIRONMENT

The best opportunities for the formation of a teenager's agency in interaction with the natural environment, in our view, is provided by additional education of children, which implements various types of group and individual training, gives a free hand at choosing the content and forms of experimental research activities. This type of education allows you to involve adolescents in creative environmental-oriented projects that meet their interests, has a huge educational potential, providing moral, spiritual, cultural and social guidelines [16].

Country camps as specific places for educational recreation and learning in the system of additional education for children are not only situated in the genuine natural environment, but all the possibilities to create specific conditions for the implementation of various eco-cultural forms of adolescent activity.

We consider the essence of formation of a teenager's agency in interaction with the natural environment as a results-oriented pedagogical process based on the model "Action - Training - Action", during which a teenager first gets his own experience of environmental activities, then improves it, adopting knowledge and skills of his conveyer of knowledge, and further reinforces the experience through practice, trying times or adventures [17].

Experimental work on the formation of the agency of a teenager in interaction with the natural environment was carried out on the basis of a children's recreation camp as part of the project "Rest and study with joy" in the city of Anapa in 2016-2018. There were more than 150 teenage respondents. At the first stage of experimental work, we diagnosed the level of development of the agency of the adolescents. At the first stage of our experimental work, we diagnosed the level of development of the agency of adolescents. On the third day of their staying in the camp, when they had already gone through the stage of the primary adaptation to the new conditions, we carried out an ascertaining experiment using the questionnaire "Assessment of the stages of the formation of agency" (by V. I. Panov et al). The teenager was asked to consider various situations where it was necessary to make an environmentally oriented choice and depending on the choices made by the teenager, the stage of formation of his agency was determined.

It turned out that the predominant stage of development of agency in adolescents was the third stage, the "learner". It was shown in 56% of the participants. Running second to it in terms of frequency of occurrence was the second stage -

the "subworker" (27% of respondents). The third place occupied the "master" stage, in 8% of the participants. The fourth - the "observer" stage - in 8% of adolescents, in fifth place there was the "expert" - only 1% of the respondents, and there was no one who was at the "creator" stage.

Then, during the camp session, we conducted an educational experiment, based on the ideas of active environmental training, which had experimental, ecological and psychological approaches as the basis. The formation of agency of a teenager in interaction with the natural environment took place in the process of subject-generating forms of activity: science adventure programs, collective creative research projects, environmental training and tests.

Broadly the science and adventure program is a set of lessons and activities that contribute to the harmonious development of children and adolescents through a combination of components of environmental, physical, psychological and creative education on the pragmatist basis [18]. Environmental practices and tests are organized to solve pressing issues of environmental education of adolescents and imply a clear formulation of the purpose of the practice, the activity itself, and special means of achieving the goal. Environmental practice can become an adventure for a teenager, which is the beginning of his interaction with the natural environment, the point of discovery of the substance of nature, through diving into environmental reality and the self-analysis of his emotional state while in it.

These forms combine the adolescent's natural desire for communication, self-realization, the familiarizing with the activities which are attractive for him, in the summer camp, and effective environmental education. In our experiment, adolescents were engaged in scuba diving, climbing training, naval training, they studied the basics of survival in various natural conditions, took courses in natural science, which provided the study of living beings in their natural habitat. As a result, we have provided a higher level of interaction with the natural environment, where the adolescent acted as a trained actor, able to use the acquired knowledge and skills creatively [19].

At the end of the session we conducted a control experiment and asked teenagers to answer the questions from the previously presented questionnaire again.

It turned out that this time the fourth stage of development of agency, the "master", was most often shown. It was indicated in 41% of respondents. In second place was the "learner" stage, in 30%. In third place was the "subworker" stage (15%), 12% of adolescents reached the "expert" stage, and 2% of the respondents rose to the "creator" stage. The stage "observer" was not indicated in any of the participants.

V. CONCLUSION

Studying the problem we have outlined above, we often observed aggressive adolescents "armed" with the youth subculture which makes them immerse in virtual world with the help of different gadgets, negative and skeptical, become completely different people, having fallen into the world of

sea, sun, mountains and forest. The power of nature seemed to wash all the superficial and artificial away from their personalities, uncovering the soul, returning the person to the real active life.

Having become a subject of interaction with the natural environment, a teenager experienced positive emotions that could not ever be forgotten. When plunged into the natural environment he learned how to respect nature and take care of it. Experiencing events full of difficulties and adventures made him reconsider his attitude towards nature, his views of the world, values and lifestyle.

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