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THE PSYCHOLOGICAL CONSTITUTION OF ENVIRONMENTAL CONSCIOUSNESS IN PRIMARY SCHOOL STUDENTS

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Abstract: The article is dedicated to the empirical study of the peculiarities of the age dynamics of the development of environmental consciousness in primary school students. As a result of the study, the peculiarities of the formation and development of its main components, the cognitive one, the perceptive and affective (emotional) one and the behavioral one, were detected. The criteria and indicators of the levels of their development were described. The correlational interrelation between the environmental knowledge existing in children and their drives for nature conservation activities was revealed.

Keywords: primary school, psychology, environmental consciousness, age dynamics, cognitive, perceptive, affective, behavioral, formation, development, environmental knowledge

Introduction

The changes in the environment resulting from the manmade mediation of human interaction with the environment have caused significant changes in the forms and means of human livelihood. The significant human alienation from nature results in the rise of a broad range of negative consequences, which makes it necessary to search for the ways to reorient the worldview basics of existence and social production in the human interaction with nature. Innovative psychological approaches to the environmental education and environmental upbringing of schoolchildren which have to be aimed at the formation of dominant environmental values in them, the development of the abilities to see, feel and realize the whole of natural phenomena, exhibit activity and their own involvement in the problems of the environment are gaining significant importance. This results in the need for the in-depth study and improvement of the methods of environmental consciousness diagnostics and development where the aim is to enrich and broaden the knowledge about the environment, the change in the schoolchildren’s attitude not only to the world of nature surrounding them, but also to themselves as a part of nature.

The problem of environmental consciousness is an object of psychologists’ attention nowadays. There is no unified interpretation of it as a psychological category yet, even though several approaches to its study exist. Usually, researchers understand environmental consciousness as a certain psychological formation (a part of consciousness) having to do with the human attitude to nature. Accordingly, various concepts are built which form the basis for the development of methodological principles, basic notions, diagnostic and methods of its study (S. Deryabo, V. Panov, V. Skrebets). A significant place in the currently existing concepts is occupied by the problem of environmental consciousness typing. The most widespread is the opinion according to which three types of environmental consciousness are singled out depending on the focus of environmental beliefs: the anthropocentric one, the nature-centric one and the ecocentric one (V. Yasvin, V. Panov, O. Rudomo-Dusyatksa, V. Skrebets, A. Lyovochkina). Studies of the psychological and pedagogical problems of environmental consciousness formation in the education and upbringing process (M. Zabrodskiy, M. Kolesnyk, M. Filonenko etc.) and the use of the interactive technologies of environmental consciousness formation (I. Kryazh, A. Lyovochkina, O. Mameshyna, O. Palamarchuk, V. Yasvin etc.) exist. Along with that, the analysis of literary sources provides the reason to claim that there are actually no studies revealing the age aspects of the development of the individual’s environmental consciousness, particularly its formation and development at primary school age, at the moment. Insufficient attention is paid to the study of the methods of environmental consciousness diagnostics and correction at various age stages of the individual’s development.

The aim of my article consists in the description of the results of the empirical study of the age dynamics of environmental consciousness in primary school students.

The following psychodiagnostic tools were used in the empirical study.
The Natura-phile questionnaire designed for the diagnostics of the development level of the intensity of subjective attitude to nature which is non-pragmatic in modality and its structure (Deryabo and Yasvin (1994).

The EKCB (Emotions, Knowledge, Conservation, Benefit) verbal associative technique developed by V. Yasvin and S. Deryabo (1995) was used to study the dominant tenet in the attitude to nature.

The use of N. Kochetkov’s Attitude to Environmental Problems technique gives the opportunity to empirically study the cognitive, emotional and behavioral components of environmental consciousness (Kochetkov, 2011).

263 primary school students who formed two groups participated in the study. The first one included 133 first-form students, whereas the second one included 130 fourth-form students.

Results and Discussion

The results of the study of the children’s dominant tenet in their attitude to nature using the EKCB technique make it possible to sum up that for 32.4 % of the 3rd-form primary school students, nature is a source of new knowledge, which evidences the domination of the cognitive-type tenet in their attitude to nature. A great number of natural phenomena, the peculiarities of animals’ and plants’ existence are objects of those children’s interest. However, the cognitive interest goes beyond mere questions to adults; at the same time, they demonstrate knowledge of the human influence on the environment, which may be both positive and negative, that is fair for their age.

Fewer children with this component dominating were found among the 1st-form students – 24.4 %. The objects of first-formers’ interest mostly include seasonal natural phenomena and the changes in the life of the flora and fauna associated with them; however, third-form students are interested in our state, its place in the world map, the mineral resources of Ukraine, the human use of energy carriers etc. That is, cognitive interest towards environmental phenomena is more characteristic of 3rd-form students. I believe that can be explained by the fact that the volume of knowledge about nature in third-form students is greater, which, in its turn, motivates the acquisition of new knowledge about the environment.

The aesthetic type of attitude to nature was diagnosed as the dominating one in 35.3 % of the 1st-form primary school students. The beauty of environmental phenomena does not leave those children cold. They often feel uncomfortable in the city for some time after alfresco walks, being inclined to natural landscapes, wanting to play in the meadows, fish, pick berries, watch natural objects etc.

The aesthetic type of the attitude to nature turned out to be dominant in 21.3 % of the third-form students. While communicating with the living world, they mostly immerse in the inexhaustible beauty and wealth of natural phenomena and admire the mysteriousness of the environment.

The ethical tenet in the attitude to nature was evidenced in 24.2 % of the first-form primary school students and 29.2 % of the third-formers. Their caring attitude towards nature is externalized in the drive to increase its beauty first and foremost. They treat nature as an object of conservation, dream of good deeds to its benefit, attach great importance to socially useful work having to do with environmental conservation and participate in it.

The experimental data obtained during the study confirm the fact that the pragmatic tenet in the attitude to nature is characteristic of as few as 16.1% of the 1st-form students and 17.1% of the third-formers. Unfortunately, those children perceive the environment as an object of benefit rather than as an object of admiration and protection.

The use of the Natura-phile technique allowed diagnosing the dominant components of subjective attitude to nature in 1st and 3rd-form primary school students.

For 38.4% of the third-formers, nature is a source of new knowledge, which evidences the dominance of the cognitive component of the subjective attitude to nature in them; it characterizes the peculiarities of the changes in the motivation and direction of cognitive activity regarding natural phenomena. It is manifested in the willingness and aspiration to obtain, search for and digest information about the natural environment, while also evidencing the extent of a particular “information sensitivity” before it.

The cognitive component turned out to be dominant in the structure of environmental consciousness in 1st-form schoolchildren. These children manifest interest in obtaining scientific information about nature in any form. They view natural objects and phenomena as a source of environmental knowledge, searching for means to satisfy their need for new, educational information.

It is worth noting that the depth and content of environmental knowledge differ significantly in these two age groups. For instance, unlike first-formers, 3rd-form students are interested not only in the seasonal changes in plants’ and animals’ life, but also in the natural zones of Ukraine, types of...
forests and rivers etc. They know the meaning of mineral resources for human economic activities, the dependence of human economic activities on natural conditions, as well as the adaptation of living organisms to various forms of existence. The nature of materials and oceans, the Solar System and its composition, the place of our planet in the Universe etc. are often in the focus of their interest. Third-formers have more in-depth knowledge about responsible attitude to nature, are aware of the practicability of observing it, while manifesting steady activity in expanding and deepening their knowledge. They have a developed desire to come to know the environment.

The perceptive and affective (emotional) component of the subjective attitude to nature is characteristic of the level of: 1) aesthetic awareness of objects of nature; 2) sensitivity towards their vital needs; 3) adoption of ethical norms. Common for the three aspects of the analyzed component of the attitude to nature is the fact that some natural object or other, while being perceived by children, is emotionally evaluated by them, becomes affectively colored, while perceptive and affective processes occur in inseparable unity. That is why it was called perceptive and affective.

The above psychological phenomenon turned out to be dominant in 33.3% of the first-formers. They have a keen eye for the sensual and expressive elements of natural objects: color, symmetry, dynamic properties, sound and shadow characteristics etc. That is, these children “see”, “hear” and “feel” more. However, they are distinguished not only by their increased ability to perceive the properties and sensory peculiarities of objects of nature; these schoolchildren wish to obtain them constantly, i.e. feel some kind of “sensory and aesthetic hunger”.

The perceptive and affective component was diagnosed as dominant in 20.3% of students among the third-form children. Empathy and identification with objects of nature are typical of them; they are capable of emotionally respond to various manifestations of the life of the latter and are able to perceive the world of nature through the lens of human ethical norms.

However, the perceptive and affective component of children’s attitude to nature is more strongly pronounced in first-form students, who are more emotionally positive towards nature and manifest interest in and empathy for the environment. For them, observations of natural phenomena are an inexhaustible source of aesthetic impressions which encourage them to feel beauty, provoke value judgments associated with experiencing the beauty of the environment.

The third group was composed of schoolchildren with the dominant practical component (19.7% of the first-formers and 14.6% of the third-formers) which characterizes the level of readiness and drive for practical interaction with objects of nature, mastering the processes required for it. These schoolchildren aspire for various practical activities with natural objects with no outside incentive and have various hobbies having to do with wildlife. For them, the environment is an object of pleasure; it incites them to practice nature conservation activities rather than consumer attitude to it. If the practical component of the intensity of the attitude to nature is poorly formed, the child is only ready to carry out practical activities with natural objects organized by other people to a certain extent. That is, that activity does not go far beyond the limits set by the situation.

Unfortunately, the study conducted allows summing up that only a small number of primary school students of both age groups are ready to actively participate in nature conservation efforts, are aware of their personal responsibility for the state and further fate of the environment and understand the need for the sustainable use of the environment.

The study of the cognitive, emotional and behavioral aspects of environmental consciousness based on N.V. Kochetkov’s Attitude to Environmental Problems technique allows claiming that the cognitive component of environmental consciousness is dominant in 40.4% of the first-form subjects and 43.4% of the third-form ones, which evidences the maturity of their intellectual spheres, their drive to consciously replenish knowledge, the existence of their ecological world outlook that includes a system of knowledge and rules of conduct in the environment and the awareness of the need to apply them in practice. The primary school students with a highly developed cognitive component of environmental consciousness are characterized by well-formed environmental knowledge (which includes mastering ecological concepts), well-developed environmental thinking, the adequacy of environmental judgments and having an environmental stance of their own. However, the highest level of development of this component was diagnosed in 3rd-form primary school students. In my opinion, it is due to the fact that they have a greater volume of knowledge and abilities formed with which they can analyze special-purpose literature, problematic environmental situations, find humane ways to solve them and assess the results of nature conservation activities.

The domination of the emotional component of environmental consciousness allows claiming that it is typical of 39.3% of the first-formers and 27.3% of the third-form students to a great extent to admire
the beauty of the environment, the singularity and uniqueness of its forms, colors and harmony. It all, while influencing sensory organs, provokes various pleasant emotions and feelings in the children.

The domination of the behavioral component of environmental consciousness was evidenced in as few as 20.3% of the first-form students and 29.3% of the third-form ones. Unfortunately, a great number of subjects mostly favor the manmade environment. In my opinion, it is due to the children not understanding their responsibility for the future of the environment, the small amount of their knowledge concerning the impossibility of human existence without nature. In the civilized world, children find themselves in the context of a compromise between the nature and machines. Their poorly formed environmental consciousness determines pragmatic attitude to nature and the lack of desire to participate in efforts having to do with its conservation. However, 3rd-form students are more able to predict the consequences of their actions, realize the need to preserve the riches of the nature and show concern in environmentally complex situations. They are capable of analyzing problematic environmental situations, finding ways to solve them, evaluating the results of nature conservation activities, planning their activities in the environment and carrying out practical environmental actions.

Manifestations of socially valuable motivation in their relationships with nature are also characteristic of first-form students in general; however, their behavior is often motivated by the desire to win the favorable attitude of the others, to avoid the situations of disapproval and punishment.

Thus, the study conducted made it possible to trace a trend consisting in the emotional (perceptive and affective) component gradually decreasing during junior childhood. That is, the less a child is governed by emotions in their attitude to nature, the more they are disposed to come to know the structure of the nature around them.

Conclusions

Thus, summing up the results of my study made it possible to single out and analyze 3 levels of development of each component of environmental consciousness in primary school students: the cognitive one, the emotional one and the behavioral one.

The cognitive component of environmental consciousness covers the level of development of the intellectual sphere, the motivation and focus of the cognitive activity having to do with objects of nature due to the attitude to it, which are manifested in the readiness (lower level) and drive (higher level) to obtain, search for and process information about those objects, in a special "informational sensitivity to them". The low, medium and high levels of the cognitive component were established according to the selected criteria.

The high level of the cognitive component is characterized by well-formed environmental knowledge (which includes the command of ecological concepts), well-developed environmental thinking, a well-pronounced drive for obtaining information about natural objects, the adequacy of environmental judgments and having an environmental stance of one’s own.

The medium level is characterized by a child’s awareness of the significance of environmental knowledge despite its quantity and quality being insufficient, logical environmental thinking, the adequacy of environmental views and an unstable environmental stance.

The low level is characterized by the lack of environmental knowledge, being unaware of its significance for oneself, the inability to perceive environmental tenets and the lack of a certain environmental stance.

My study had the following results: 13.2% of the first-form and 25.6 % of the third-form primary school students showed a high level of development of the above phenomenon, the medium level was diagnosed in 43.2% of the first-formers and 46.5% of the third-formers, the low level of development of the cognitive component was observed in 43.6% of the first-form and 27.9% of the third-form students.

The criteria of the level of development of the emotional component of primary school students’ environmental consciousness included: a system of affectively colored "models" of aesthetic, ethical and vital nature resulting from one’s attitude to nature and manifesting on the level of the aesthetic and ethical absorption of objects of nature, increased susceptibility to their sensual and expressive elements and the drive for obtaining them; the level of formation of environmental feelings and values; children’s experience of a positive emotional attitude to nature and its objects; the ability to assess one’s behavior through the behavior in the environmental sphere; mutual understanding with and respect for other subjects, including natural ones. According to the criteria mentioned, the high, medium and low levels of the emotional component of primary school age children’s environmental consciousness were established. In my study, 34.5% of the 1st-form children showed the high level of its development, 40.2% – the medium one, and 25.3% – the low one. The results were as follows
among the third-form students: the high level of the above psychological phenomenon was diagnosed in 19.1% of the subjects, the medium one – in 31.4%, and the low one – in 49.5%.

The high level is characterized by well-formed environmental feelings, experiencing a positive emotional and value-conscious attitude to nature, personal concern for the fate of the Earth, tolerance and tact in one’s attitude to natural objects.

The medium one corresponds to experiencing a positive attitude to natural objects, empathic ability, recurrent manifestations of environmental feelings, being incapable of identification with natural objects and environmental reflection.

The low level is characterized by experiencing a positive emotional attitude to nature and certain natural objects temporarily and superfluously, the lack of environmental interests, ideals, tolerance and tact for the environment.

The behavioral component is characterized by the formation of the motivation and focus of practical activities with objects of nature due to the attitude to it, which is manifested in the readiness and drive for practical interaction with them; the existence of abilities and skills and being capable of applying them in various types of environmentally focused activities; the observance of the standards and rules of conduct in the environment; the ability to include environmental values in one’s own system of life priorities and be governed by them in one’s activity.

According to the criteria specified, three levels of the behavioral component of primary school students’ environmental consciousness were determined: the high one, the medium one and the low one. The high level of development of the behavioral component was evidenced in 21.1% of the 1st-form children, the medium one – in 29.4%, and the low one – in 49.5%. The results were somewhat different for the third-form students. For instance, the high level of the above psychological phenomenon was diagnosed in 33.2% of the subjects, the medium one – in 35.7%, and the low one – in 31.1%.

The high level is characterized by the children’s active nature conservation activities, well-formed abilities and skills having to do with the observation of the standards and rules of conduct in the environment, the ability to include environmental values in one’s own system of life priorities and be governed by them in one’s everyday activities, as well as correct one’s own activities according to one’s personal life priorities.

The medium level of the behavioral component is characterized by the children’s well-formed executive abilities and skills, their observance of the standards and rules of conduct in the environment, their ability to adopt environmental values but not to be always governed by these values in their activities, the features of their life stance regarding nature conservation behavior not being defined for themselves.

The subjects on the low level of behavioral component development are characterized by poorly formed practical abilities and skills, the lack of any behavior strategy in the environment, the inability to perceive environmental values and be governed by them in life, the existence of the behavioral patterns that run contrary to environmental standards and interests.

References

