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**TYPOLOGY OF ENVIRONMENTAL AWARENESS IN THE
CONTEXT OF QUALITY OF LIFE**

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Abstract

Addressing the challenges of sustainable development of society, as well as ensuring environmental safety largely depends on environmental education and public awareness, notably at the regional level. These tasks are closely related to improving the quality of life. The aim of the paper is to establish a typology of environmental awareness of the Samara region population. Establishing a typology in this case involves comparing groups of respondents depending on the level of their awareness of the environmental situation in the region. The empirical basis of the study is the materials of the survey conducted in 2017. 754 people who live in 35 settlements of the Samara region of the Russian Federation were interviewed. The respondents were divided into three groups depending on their self-assessment of environmental awareness as "well-informed," under-informed, "not informed." The low level of environmental awareness creates the perception that the environmental situation is favourable and the problems can be solved by introducing new subjects in educational institutions curriculum. The high level of environmental awareness results in the negative assessment of the environmental situation in the region. The way out in this case is more often related to the introduction of new technologies, the emergence of more active citizenship as for the practical implementation of environmental values. The results of the study prove the need to develop environmental awareness so that to improve the quality of life of the population.

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1. Introduction

At the end of the last century, the UN policy documents on environmental issues emphasized the need to develop a new system of environmental values. This need is embodied in the phenomenon of environmental awareness that focuses on people's changing attitudes towards the environment. The environmental factors impact on indicators of quality of life is widely reflected in modern scientific publications. In particular, the analysis of the results of studies conducted in the USA makes it possible to establish a relationship between subjective assessments of quality of life and environmental factors. Quality of life indicators were found to be linked not only to economic well-being, but also to the state of the environment (Ahmadiani & Ferreira, 2019).

The research conducted in the UK aims to examine the social impact of climate change (Paavola, 2017). The negative impact of climate on health has been found to reduce the quality of life for people with low incomes. The problem of access to health services is becoming acute as environmental factors can increase the risk of emerging dangerous diseases.

Foreign scholars pay attention to environmental conditions when studying problems connected with the quality of life of various professional groups. These problems are particularly relevant for occupations with greater health risks. The relevant studies claim that the environmental quality is closely interrelated with health indicators, psychological well-being and economic conditions (Huang, Chen, Long, & Li, 2019). For example, research conducted in Canada has established the dependence of premature mortality on health and environmental quality (Awuor & Melles, 2019).

Concern for the environment is linked to indicators of standard of living and quality of life. Environmental awareness in this case functions as means of ensuring the safety of mankind and it determines the content and the value of environmental relations and activities.

2. Problem Statement

An analysis of existing publications on environmental awareness shows that this concept is interdisciplinary and it involves integrated approaches to its study. A number of philosophers, scientists and politicians recognize the need to promote environmental awareness as the basis for responsible attitude towards the environment. A way out of the environmental crisis is to create a new system of values that reflects the imperatives of environmental safety. The study of environmental awareness and environmental education is the subject of many works by foreign scientists. As for the Russian researchers, they have done a lot to summarize and systematize foreign concepts of environmental education (Rozenberg & Kudinova, 2016). Foreign researchers also pay great attention to the development of creative abilities of the individual as the result of environmental education. The formation of imagination while taking courses on environment protection is necessary to understand the consequences of human activities and, consequently, to protect the nature against environmental damage (Jensen, 2017).

A number of foreign works on this subject focus on the existing impediment to the formation of environmental awareness which is necessary for the sustainable development of society. This challenge results in description of environmental factors and their role in sustainable development. Also there are

difficulties in forging cross-disciplinary links that are needed to raise environmental awareness (Gale, Davison, Wood, & Williams, 2015).

According to the foreign scholars, in order to increase the efficiency of environmental education, it is necessary to establish effective interaction between educational institutions of the regions (Duffin & Perry, 2018). Thus, the analysis of scientific works proves the need to explore the relevance of studying the concept of environmental awareness and its relation to indicators of quality of life.

3. Research Questions

As it has been noted above, the concept of “environmental awareness” is insufficiently developed; in foreign works it is considered mainly in the context of environmental education. As the result of analysing the academic literature (Jordan & Kristjánsson, 2017; Christensen, Åberg, Lidström, & Larsen, 2018), the following definition of environmental awareness can be proposed. Environmental awareness is a system of knowledge, values, beliefs, behavioral attitudes that contribute to the regulation of interaction with nature and improvement of quality of life.

In Russian society, the tasks of promoting environmental knowledge are carried out within the framework of environmental education. So, the following tasks are of interest in present-day Russia. It is relevant to study information sources that can influence the environmental awareness of the residents. This information serves as the basis for establishing a typology of the population according to their self-awareness of environmental issues. It is important to analyze the existing ideas about measures for ensuring environmental safety which can be considered as a subjective criteria for quality of life. A typological analysis, in its turn, allows to obtain data on people’s perception of the ways to solve the environmental problems of the region.

4. Purpose of the Study

The aim of the research is to establish a typology of environmental awareness in the context of quality of life factors. The criteria analyzed include the activities of the media, law institutes in the formation of environmental values. Environmental awareness is aimed at revealing the causes of environmental problems and at finding the ways to solve them. The typology of environmental awareness reflects the subjective indicators of the environmental factors influence on the quality of life.

5. Research Methods

The study of environmental problems and efficiency assessment of the methods used for solving them became the subject of a sociological survey conducted by the faculty and students of the department "Sociology" of Togliatti State University in 2017. 754 people who live in 35 settlements of the Samara region were interviewed. Social and demographic indicators of the survey participants are close to the average indicators for the array. All named factors make it possible to establish the typology of environmental awareness of the Samara region residents, taking into account some aspects of quality of life. The typology also includes the study of factors affecting the survey participants’ awareness of the environmental situation, i.e. the existing sources of information, legal norms in the field of ecology and

ideas about the ways to solve environmental problems. The survey results were processed by means of the statistical processing program SPSS -23.

6. Findings

The respondents were asked the question: "How well are you informed about the environmental situation in the city (settlement)?" The following answers were received. 41% of respondents are well informed on the environmental situation in their settlement. Among them the number of females, young and middle aged males is by 5% more than on average in the array.

The educational characteristics of those who attached themselves to "well informed" are close to the average for the array. The number of small town and rural areas residents is by 5% more than in the array.

45% of respondents consider themselves to be insufficiently informed. The distributions by age and gender characteristics, as well as by place of residence, are close to the average for the array. The number of the "insufficiently informed" people with secondary and secondary vocational education is slightly more than on average in the array.

14% of respondents noted that they were not informed about the environmental situation at all. In this group, the number of respondents who are over 50 and the number of graduates of universities is by 5% more than on average for the array. The number of residents of large cities is by 5% more than the average for the array.

Survey participants who do not have any information about the actual environmental situation often refer to special environmental courses as well as environmental monitoring data as their main sources of environmental knowledge. The survey results for this group exceed the indicators for the array, respectively, by 11% and 15%. The remaining answer options are noted far less frequently than the average for the array.

The respondents were asked to assess the environmental situation in the Samara region on a five-point scale. 5 points corresponds to the most favorable situation, 1 point - to the most unfavorable, 0 points means "I find it difficult to answer". The data are based on the calculation of the weighted average indicators. The average data for the array is 3.6 points. The results of the survey of respondents who consider themselves to be well informed on environmental issues are lower than average by 0.2 points, which makes 3.4 points. The rate of the survey for the group of "insufficiently informed" is 3.5 points. The survey participants who do not consider themselves informed about the state of the environment in the region rate the environmental situation at 4.2 points. Thus, the survey results of the "uninformed" group are by 0.6 points higher than the average for the array.

Let's consider the results of a self-assessment of respondents' knowledge about ensuring the environmental safety standards. The procedure of self-assessment was carried out according to a three-point system: 3 points means enough knowledge, 2 points - not enough knowledge, 1 point – "I know almost nothing", 0 points – "I find it difficult to answer". The data are based on the calculation of weighted average indicators.

According to the results in the array, the highest level of respondents' awareness is observed in their self-assessment of rules of conduct outdoors (1.49 points). The knowledge about the possible impact of the ecological situation on human health is estimated as 1.25 points.

Next the respondents assessed their awareness about the rules for the disposal of household waste, they marked their knowledge at the level of 1.14 points. Their self-esteem of knowledge about laws on environment protection is slightly lower, it makes 1.13 points. The array self-esteem of awareness about nature objects under protection is 1.09 points. The survey participants' self-assessment of their knowledge about the criteria for the safety of food and goods makes 1.08 points. So, the average level of respondents' knowledge here is 1.12 points. Thus, the overall indicator reveals obvious lack of knowledge about environmental safety standards.

Self-assessment of knowledge about environmental safety standards varies depending on the respondents' awareness of the environmental situation at the local level. Survey participants who consider themselves to be well-informed claim to have sufficient information about various aspects of environmental safety. However, the average level of their knowledge on a three-point scale is 1.32 points. This indicator is by 0.2 points higher than the average for the array. Thus, it is displaced on a scale towards a lack of knowledge about environmental safety standards.

The respondents who are not aware of the environmental situation at their place of residence assess their knowledge at the level of 0.81 points on a three-point scale. This indicator is by 0.31 points lower than the average for the array.

One of the objectives of the study included the study of respondents' opinions about the ways to solve environmental problems in the region. Two fifths of the survey participants believe that it is necessary to exercise strict control over the plants treatment facilities. More than a third of respondents (37%) consider that increasing fines for environmental damage can become an efficient measure of providing environmental safety. Among the technical and technological methods for improving the environmental situation, the survey participants highlighted the implementation of new waste disposal technologies. These answer options are selected by a third of respondents.

29% of respondents believe that the introduction of resource-saving technologies, as well as building additional treatment facilities, will help to improve the environmental situation. About one fourth of the survey participants noted the need to abandon plastic packaging. 21% of the survey participants identify urban greening as a measure to improve the ecological well-being of the territory. An increase in incentives for the environmentally friendly products manufacturing was noted in 17% of questionnaires.

A quarter of respondents consider the promotion of a healthy lifestyle to be an effective measure, and they also consider it necessary to organise in educational institutions special courses aimed at nature protection. 23% of respondents support the necessity of introducing amendments in environmental legislation.

A fifth of the survey participants emphasize the role of public service announcements on environmental protection. 17% of respondents believe that it is necessary to increase the effectiveness of local government concerning environmental protection. 15% of respondents believe that environmental movements need to be further developed.

The survey participants, who are characterized by a high self-esteem of their environmental awareness, increasingly note new technologies use (growth rate of 6-7%) among the most efficient ways to solve environmental. These methods include: the introduction of resource-saving technologies, the introduction of new technologies for waste disposal, the construction of additional treatment facilities. They are also more likely than others to consider the following ideas effective: increasing fines for environmental damage, changing environmental laws and increasing incentives for environmentally friendly products.

Respondents who are well aware of the environmental situation are by 10% more likely to support urban greening programs. They also believe that for solving environmental problems, the social potential of local self-government and environmental movements is to be stimulated, as well as to use public service announcements on environmental protection. The representatives of this group less often than others support the rejection of plastic packaging, as well as the introduction of special environmental courses in educational institutions.

Survey participants who consider their level of environmental awareness as insufficient tend to support tightening of control over the plants treatment facilities. They also believe that healthy lifestyle and abandoning of plastic packaging need to be promoted. They are by 6% less likely to support technological innovations in the sphere of resource conservation, waste disposal and urban greening. Insufficiently informed respondents less often highlight the use of the social potential of local government and environmental movements as means of solving environmental problems. The remaining answer options are marked at the level of average indicators for the array.

Respondents who consider themselves to be uninformed about the environmental situation are by 6% more likely to note the need to introduce special environmental courses in educational institutions. The "not informed" by 10% less often support the need to introduce new technologies for waste recycling and resource-saving. They are by 6% less likely to note the importance of improving the environmental legislation and control over treatment facilities. The representatives of this group are by 8% less likely to recognize the importance of a healthy lifestyle.

Among the social factors influencing the solution of environmental problems, the "uninformed" also note the municipal governments resources and development of the environmental movement. This result is at the level of average indicators.

7. Conclusion

The typology of environmental awareness includes indicators of environmental awareness actual for the region. They are inversely related to educational level and age. The respondents' opinions on the environmental situation in the region are also inversely related to their level of awareness. Survey participants who consider themselves to be uninformed about the environmental problems of the region tend to assess the environmental situation as favourable unlike those who is better informed.

The results of the survey show that the self-esteem of respondents' awareness is related to the sources of information. This allows us to conclude that environmental information as a factor raising environmental awareness needs to be constantly updated. The amount of environmental knowledge

gained in educational institutions is insufficient for proper orientation in the current environmental situation.

The respondents' perceptions of environmental legal norms vary depending on their self-assessment of environmental awareness at the local level. Insufficient and low level of awareness of respondents is associated with low self-esteem of legal knowledge in the field of ecology. In general, self-esteem of the respondents' awareness of legal norms in the field of ecology is low. This indicator is below 1.5 points out of 3 possible even among the group of well-informed respondents.

The typology of environmental awareness includes ideas about the ways of solving environmental problems. The respondents who are well informed about the environmental situation in the region more often than others note the importance of introducing new resource-efficient technologies in manufacturing, they also emphasize the need to increase the efficiency of environmental control. This group of respondents considers it necessary to use the potential of environmental movements for the solution of environmental problems.

Survey participants who determine their environmental awareness as insufficient are less likely to pay attention to technological factors. However, they often support the promotion of a healthy lifestyle and the abandoning of plastic packaging.

Respondents who do not have much information about the environmental situation in the region tend to note the importance of environmental education through various academic subjects. They also rely on environmental movements as means of solving environmental problems. The typology of environmental awareness, established on the basis of a survey of the Samara region population, demonstrates a number of contradictions that indicate a low level of environmental awareness. Contradictions are manifested in particular in the fact that a good awareness of the environmental situation is a factor that reduces the indicators of subjective quality of life. This typology provides the basis for taking measures aimed at creating a permanent system of environmental education and awareness-raising for all groups of the population. The formation of environmental awareness should be accompanied by the introduction of innovative social practices so that to involve all categories of the population in solving the environmental problems of the region.

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