

Theoretical Justification of a Model of Ecological Culture of a Senior

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Abstract: In the article a set of provisions making the theoretical-methodological basis of the research of formation of ecological culture of a senior is studied; the model of ecological culture of a senior is theoretically proved and developed, a structural analysis of the model of ecological culture of a senior is given. A set of provisions making the theoretical-methodological base of the research of formation of ecological culture of a senior was proved; The model of ecological culture of a senior was theoretically proved and developed. A set of provisions making the theoretical-methodological base of the research was defined and proved, the essence of the concept of ecological culture of a senior was discovered, its model developed.

Key words: Model • Ecological culture of a senior

INTRODUCTION

The consequences of global anthropogenic catastrophes prove that the reason of ecological disasters is often the activity of a person whose irresponsibility prevails over reason. Therefore it is not casual in the conditions of ecologization of the economy, legislation and society that the problem of ecological education of the younger generation come to the foreground. Formation of ecological culture of a personality is one of the conditions of an advance of Kazakhstan on the way of sustainable development because only in this case satisfaction of the needs of the present generation won't threaten the possibilities of future generations to satisfy their needs. Solution of this problem is particularly important for seniors who are making a responsible and difficult choice of the further life and defines its urgency on the social level.

The researches in the field of ecological education, training, formation of ecological culture (I.A. Voyedilov [1], A.J. McMichael [2], C. Runyan [3], R. Feldman, Masalha Sh. [4], A.V. Gagarin [5], etc.), development of ecological consciousness, world outlook, thinking and activity (M.M. Scott [6], E.J. Trickett [7], Zakharov E. Yu. [8], L.S. Polev [9], etc.) are important to us.

However we believe that ecological culture should be considered and defined as an integral value defining an everyday life of a person and appearing in the form of aspirations to improve the

conditions for life and work, to preserve one's health and not to harm the health of other people, to protect natural environment and to develop patriotism and ethic-ecological beliefs [10].

A search for the ways of resolving of the existing contradiction between the requirements of the society for improvement of formation of ecological culture of the personality of a senior and insufficient readiness of theoretical-methodological and practical bases determines the essence of the research and defines the following purpose in this work:

to prove a set of provisions making the theoretical-methodological base of the research of formation of ecological culture of a senior; to prove and develop the model of ecological culture of a senior theoretically.

Novelty: A set of provisions making the theoretical-methodological base of the research was defined and proved, the essence of the concept of ecological culture of a senior was discovered, its model developed.

Methods

For the solution of the set objectives the following methods were used: studying of philosophical, psychological, pedagogical and scientific-methodical literature, normative and program-methodical documents on the research problem; modeling, forecasting, comparison, genetic, structural and factorial analysis, synthesis, generalization, classification, formulation of conclusions, etc.

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Theoretical and empirical material was collected and generalized, domestic and foreign experience of formation of ecological culture of a senior was studied, directive, standard and program-methodical documentation was analyzed.

Main Part: The results and discussions. A set of ideas and provisions which represent themselves as methodological bases of the solution of the research problem is the first and its main characteristic.

Integrating the experience of philosophy, psychology, pedagogics, sociology and also the results of scientific-pedagogical researches of the last years, proceeding from an understanding of formation of ecological culture of a senior as a process which conceptualization can and should be carried out from different points of view, we defined a set of methodological approaches to the research: dialectic, system-synergetic, ecological-humanistic, axiomatic, circumstantial, active and personal-developing approaches. We carried out a retrospective analysis of

the problem from the positions of each of the specified approaches, estimated the successfulness of implementation of their ideas and also specified the restrictions and difficulties in application (Table 1). Such complex studying of the object of the research with the use of various methods of scientific knowledge allowed to discover and study the interconnection between methodological approaches and also to consider methodology from the point of view of its heuristic nature, i.e. an ability to provide emergence of new ideas. So manifestation of the connection of dialectic and system-synergetic approaches is the requirement for understanding of formation of ecological culture of a senior as a whole and dynamic process including not so much the sum of parts but the ways of their connection and the effect of integration. Dialectic communication of ecological-humanistic, active and axiomatic approaches demands considering that freedom of a personality in its ecological activity should be accompanied by responsibility.

Table 1: The main data on methodological approaches to the research of formation of ecological culture of a senior (further ECS)

Specifics of an approach as a method of analysis	Main possibilities of an approach in solution of the research problems	Restrictions and difficulties in application of an approach
Dialectic approach		
objective and comprehensive examination of the process in its integrity and continuous development, studying of the tendencies inherent in it and a forecast of the regularities	it provides a power of conviction of discovering of the essence of the ECS concept, gives a chance to analyze formation of a personality as a complete and dynamic process, its diverse connections and relations with other processes in the aggregate and also to observe, define, consider, develop, supervise and overcome dialectic contradictions between education of a personality and its own aspirations on the basis of consideration of dialectic interrelation of the form and the content, the cause and the effect, etc.	application of only one dialectic approach gives relative knowledge on the object of the research as they are obtained on the basis of classical, linear ideas of the process and its dynamics
Continuation of table 1		
system-synergetic approach		
Systematic studying of the object of the research on the basis of modern ideas from the positions of self-organizing, nonlinearity and irreversibility	analysis of the structure of the process, its action on the whole and its characteristics allows: to adequately react to the changes in the circumstances and to influence its structure; to develop a model of pedagogical system of formation of ECS and to discover the conditions of its efficiency; to predict emergence of critical situations and the mechanism of control; to develop a technique of realization of ecological-humanistic ideas and implementation of the ideas of bilateral integration for students of graduation classes	the revolutionary nature of development of the system in the period of bifurcation; consideration of only positive feedback in development of systems but in our case negative feedback is also important
axiomatic approach		
the research from the positions of identification of the nature of values of ECS, its connections with other values of the world and the structure of a personality	creates preconditions for definition of the conditions of formation of ECS as an integral value; allows to discover and describe the structural components of ECS, define its features and interrelation with other values; cultivates a feeling of unity of ecological and social culture-only in this case the ethics of values assumes the form of the ethics of culture and the activity-creative instead of nondestructive character; allows a person to master new standard-value relations	the analysis is impeded in the conditions of prevalence of monologue, control and submission, excessive aspiration to innovations, aggression, domination of consumer values, moral degradation of man
ecological-humanistic approach		
the method of the research of moral principles of ECS on the basis of combination of profound philosophical ideas of ecology and humanity	allows to study the problem of correlation of ecological and moral culture of a personality, widely involves the ideas of ethnopedagogics; formulates the most important methodological precondition of organization of work on ecological education of school graduates- understanding and recognition of the absolute value of any life; allows to reach the harmony in the relationship between a person and the world around; cultivates an aspiration of a person to self-improvement and self-development, forms a new moral imperative permeated with a feeling of responsibility for preservation of the world around	an ecological imperative can not be provided within traditional education, if the world outlook paradigm of a personality is such that moral norms and traditions are considered as a sign of backwardness

Table 1: Continued

Specifics of an approach as a method of analysis	Main possibilities of an approach in solution of the research problems	Restrictions and difficulties in application of an approach
Continuation of table 1		
circumstantial approach		
analysis of the object of the research from the positions of recognition, studying and use of possibilities of the circumstances	as a defining factor of education, formation, training and development of a personality allows to develop new contents and structure of the circumstances of formation of ECS; to predict various ways of development and improvement of ecological-educational circumstances as a set of value-social circumstances influencing personal development and promoting formation of ECS as an integral value; forms an ecological ideal of new circumstances of life and develops rules for coexistence in it through stimulation of a personality to active interaction with the circumstances and demonstration of prospects of personal development; brings to light the features of organization of an interaction of a student with the outside world thus equipping students with a system of ways of activity; promotes maximum realization of the parameters of the circumstances, its regularities and possibilities	the analysis is impeded if the circumstances have no creative nature and are not considered as the most important factor of emergence of moral will and value-ethical and behavioral image of a personality; the approach is limited within the type of the circumstances, its contents, characteristics, possibilities and weak pedagogical potential
Continuation of table 1		
active approach		
the method of the analysis directing a teacher toward updating and support of the processes of studying, learning and further improvement of ways of activity among school students for the purpose of self-education and self-development	allows to optimize formation of ECS through organization of complex activity, discovery of the feature of formation of motives, consciousness of a personality on the way of development of its social activity; transforms hierarchical relations of the activities forming the core of a personality and points to the unity of moral will, social behavior and the circumstances; helps a student to master different styles and rules of communication with the world for the purpose of ecological activity; allows to carry out a successful search of the ways of revision of purposes, a choice of values, increase and updating of knowledge, skills and abilities of students on the basis of studying, mastering and improvement of the ways of activity; specifies the sense of moral behavior of a personality-manifestations of ECS in the form of activity considered as an integral value	the analysis is limited within the possibilities of the circumstances and the subject it has; the subject should be constantly reckoned with the circumstances but if the joint activity as a result of interiorization of social values, norms and rules is absent formation of ECS as a value is impeded
Continuation of table 1		
personal-developing approach		
the method of analysis of the object of the research in respect of identification of its possibilities for personal development based on the idea that formation of a personality determines its development	predetermines a synthesis of informative-procedural and personal-developing components of ecological education; creates preconditions for realization of its personal developing function directed on activation of ecological consciousness, thinking, world outlook, education of value-ecological motivation etc., stimulates development of creative, regulatory and intellectual processes; provides a power of conviction of the situation that the senior school age is optimum for formation of ECS; predetermines a leading condition of personal development-organization of cooperation accompanied by activity; allows to develop a model of ECS and design optimum techniques of its application in education and training	management of personal development from the outside contradicts the essence of development of a personality as a self-movement, abolishes the unity of a person with the world; if adequate readiness of a student was not formed no offered information can be passed on to his internal personal contents

An analysis of modern approaches to definition of the concept of ecological culture (Voyedilov I.A. [1], McMichael A.J. [2], Runyan C. [3], Feldman R., Masalha Sh. [4], Gagarin A.V. [5], etc.) showed that the essence of ecological culture is identified by the majority of authors with moral relation of a personality to nature. We can't fully agree with such approach in view of two circumstances. First of all moral relation unlike morality is not always a steady characteristic of a personality. Secondly it is inadmissible to limit formation of ecological culture only to the activities for studying of the laws of nature and its protection [10]. Modern approach strengthens the social aspect of ecology what demands morality of a person not only in relation to nature but also to oneself, other people and also the society as a whole. Then ecological culture is understood as an integral

characteristic of a personality including understanding of the laws defining the life of all living things becoming apparent in observance of ethic-ecological and standard-legal principles of environmental management, active creative involvement on studying and protection of environment, maintaining and promotion of healthy lifestyle and an everyday fight against everything that causes negative effect on nature, man and society.

Taking into account the above-mentioned we can say that ecological culture is already formed as an integral value which basic values harmoniously include Homeland, family, work, health etc. In this case ecological culture will appear in an everyday life of a person-during study, work, communication, rest etc. and not just in the activity for studying of nature and its protection.

In turn the integral nature of the value of ecological culture allows to present the contents of the ECS concept as an integral wholeness of the following features and qualities: unconditional acceptance of the value of any life; love to nature, love for Homeland; existence of strong bases of morality, recognition of duty, acceptance of the system of universal values; understanding of the importance of healthy lifestyle; intellectual development; developed civic stand etc.

The essence of the concept of ecological culture of a senior consists in a tendency to conscious implementation of one's own life activity in consent with the world of nature, oneself and other people.

Life activity is understood as a set of all forms of human activity. The tendency includes not only motives and requirements, knowledge and skills, abilities and capacities but also concrete, expected and approved by the society actions of a person; aspirations promote self-education of a person, formation of his morality, will, emotional experiences, creative approach, intellectual efforts and reflective abilities.

The philosophical understanding of the term "consent" is a key in understanding of the essence of ecological culture of a senior presented above because a tendency to conscious implementation of one's own life activity in consent with the world of nature, oneself and other people will lead to self-improvement since a person being in conditions of multiple subject interactions and dialogues, mutual creativity with other people, social groups and systems of nature will inevitably develop one's own forms of activity, behavior, thinking and what is especially important will aspire to coordinate them with other subjects. In this case the concept I "want", I "can"

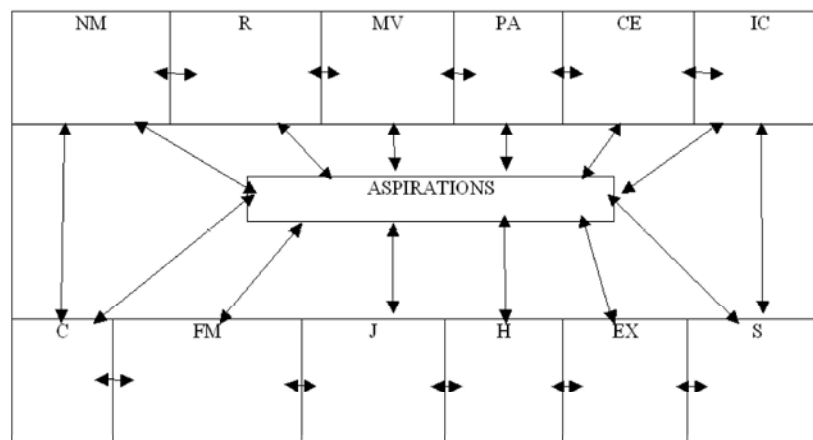
and I "should" will be synthesized in a uniform system creating the conditions of formation of ecological culture.

To discover the essence means to reproduce it in the form of a model. Specification of possibilities and features of modeling as a way of scientific knowledge, analysis of basic provisions of personality theories and requirements to a school graduate as a whole allowed to prove and develop the model of ecological culture of a senior (pic. 1).

The model formed a core (aspirations) and two conditional planes-a system of social roles (a citizen, an expert, a family man, a judge and creator of the beautiful, a follower of healthy lifestyle, a student) which are closely bound, interconnected and interdependent, as it is shown on the scheme and also a system of complex interconnected components (necessity-motivational, informative-cognitive, creative-emotional, practical-active, moral-volitional and reflective).

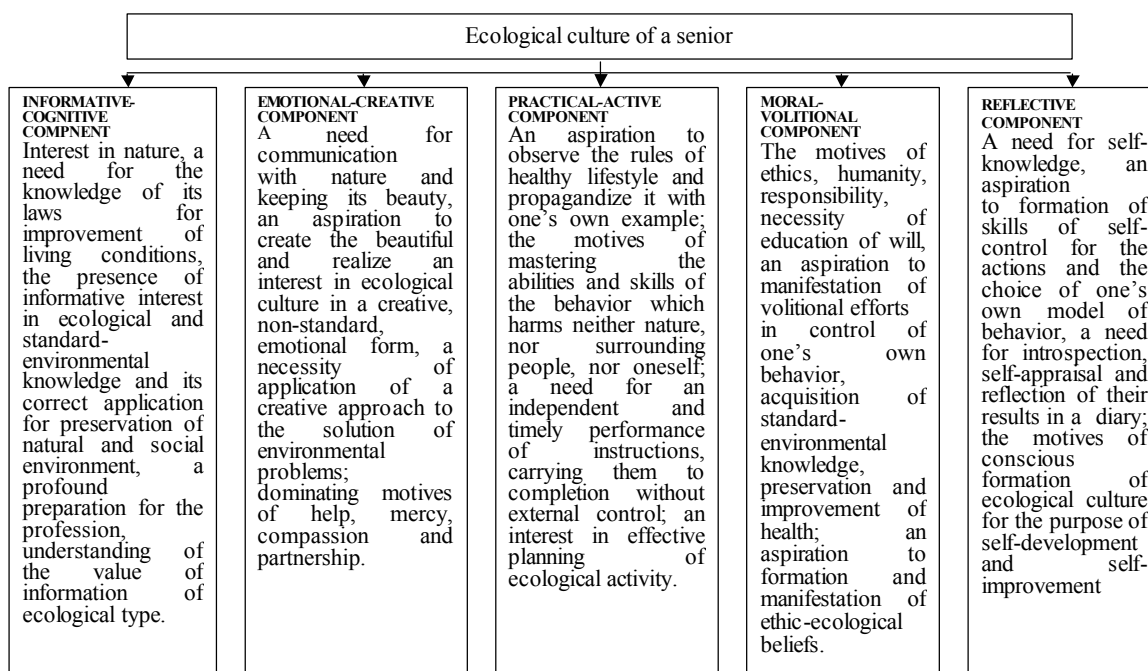
The conception of the structure of ECS as a complete multilevel formation in the form of a set of aspirations and social roles of a personality and also communications between them was taken for the theoretical basis of the model.

The main principle of modeling consists in creation of the possibility of reflection, formation and diagnostics of ecological culture in intellectual, emotional, regulatory, creative processes and the connections of functioning. *Improvement* of the model consists in the fact that structural connections are shown in both planes (both in the system of social roles and in the system of components). These connections are especially important since their analysis and diagnostics of formation provide stability of the model and its identity to itself during various external and internal changes.



Signs: top line-system of components: NM-necessity-motivational, R-reflective, MV-moral-volitional, PA-practical-active, CE-creative-emotional, IC-informative-cognitive; bottom line-system of social roles: C-citizen, FM-family man, J - judge and creator of the beautiful, H-follower of healthy lifestyle, EX-expert, S-student.

Pic. 1: The model of ecological culture of a senior



Pic. 2: The integral nature of the value of ecological culture of a senior. According to our conceptions an effective way of formation and development of structural connections is a new approach to education of ecological culture of a senior as an integral value being of primary importance in formation and development of each of the components of the model and the whole system (personality) in general.

The parameters of the model of ECS created a possibility for diagnostics of formation of the characteristics of ecological culture as the first plane of the model (system of social roles) and the second (system of components) in general reflect and include ecological culture as an integral value. The core and both planes of the model make an inseparable unity, their division is conditional and the bounds are mobile.

The structural analysis of the model discovers the possibilities for development of a system of evaluation and a technique of diagnostics of formation of ecological culture of a senior. So analysis and assessment of an ecological situation help a student to discover their value implication (informative-cognitive and necessity-motivational components) and self-actualization creates conditions for reflection of one's own system of values which guides students during the choice of the line of behavior in the course of solution of ecological problems (practical-active and reflective components).

In addition, goal-setting allows a personality to correlate socially and ecologically conditioned purpose of actions in this situation (moral-volitional and informative-cognitive components) with some emotionality and express an attitude to it what excludes contradiction with standard values and norms of the society (emotional-

creative, necessity-motivational and moral-volitional components).

A senior should carry out a conversion from judgment and understanding of environmental phenomena to social action and moral acts (connection of informative-cognitive, practical-active, moral-volitional and reflective components). Passivity or activity of a personality as a subject of ecological behavior are closely connected with the awareness of a person about the ecological situation and personal importance of environmental problems (connection of necessity-motivational, informative-cognitive and practical-active components). Communication of a person with nature is accompanied by anxiety what dictates a need of assessment of the ecological condition of the place of residence (connection of necessity-motivational, emotional-creative, practical-active and informative-cognitive components) etc.

We made an attempt to synthesize the knowledge received by means of the structural analysis of the model and in informative sense to discover the integral nature of the value of ecological culture of a senior having shown that ecological culture is a major part of all components of the model, finally, defining the result of formation of the necessity-motivational component in the structure of ecological culture of a senior (pic. 2).

CONCLUSION

The main conclusion which can be made on the basis of the structural analysis of the model is that in work on ecological education of school graduates it is necessary to direct pedagogical efforts not so much on formation of separate components but rather on formation and development of structural connections as these processes will give the whole system (personality) the required integrity and create necessary preconditions for emergence of new qualities and characteristics.

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