DIAGNOSTICS OF METHODS DEVELOPMENT FOR ECO-ORIENTED LIFE ACTIVITY OF AN INDIVIDUAL IN THE CULTURAL LANDSCAPE

INTRODUCTION

Under current conditions, the culture of sustainable development is becoming one of the essential factors of society’s transition to a “co-evolutionary mode,” being a way of harmonizing the relations between man and nature (DEMIDOVA et al, 2021; SCHWARZ-HERION & OMRAN, 2015; LOSHCHELOVA et al, 2019; MAMEDOV et al, 2009; MAMARDASHVILI, 2002; Moiseev, 1999).

Thus, the sustainable development culture imparts a culture-generating vector to education, causing the target change. Creating conditions for “students' entry into culture” (BONNETT, 2013; KONCHINA, 2019; BONDAREVSKAYA et al, 2019) obtains primary importance. The development of eco-oriented life activity (EOLA) methods becomes an essential condition for transforming the younger generation from outside observers and spectators into real subjects of culture and the co-evolutionary process.

Ecologically oriented lifeways, being an active culture manifestation, are determined by their functions and structure. Their development involves using new, “human-sized” objects of knowledge, one of which is the cultural landscape (DILLON et al, 2017; SCHWARZ-HERION & OMRAN, 2015; BUBER, 2001; LOBASHEV & TALYKH, 2020).

Meeting the requirements of culture-generating education and modern post-non-classical science, the cultural landscape acts as a complex, self-developing system. The cognizing subject is not separated from the world but is comprised in it. The individual is incorporated in relations with all landscape components (natural, cultural, and socio-economic). It enables creating a platform for a dialogue of an individual with all the elements of the “man-society-nature” system and realizing the role of culture and one’s activities in maintaining its sustainable development. At the same time, in the educational context, from the point of view of the environmental approach, cultural landscapes are cultural and developing environments that endow the life activity subject with ideas, images, and meanings.
Moreover, cultural landscapes act as “simulators” of culturally relevant ways of activity. As an example of artistic creation, they form a natural basis for contingence and mutual enrichment of different ways of world cognition and understanding (science, art, philosophy, esthetics, ethics, religion, etc.) via the synthesis of intellectual comprehension and emotional, sensory perception in all their diversity. Such unity creates favorable conditions for students to remedy a fragmented worldview and develop a holistic efficient eco-oriented life activity (BUDANOV, 2005; DEMIDOVA et al, 2021; EFFENDI, 2019; DEMIDOVA & VINOKUROVA, 2019).

As the analysis of scientific literature has revealed, the theoretical and practical fundamentals for developing students’ EOLA in the cultural landscape are underdeveloped. The authors’ team (Vinokurova, Zulkharneeva, Loshchilova, Demidova, Martilova) conducted a study within the Russian Foundation for Basic Research (RFBR) project “Research of theoretical foundations for the development of eco-oriented schoolchildren's life activity in a cultural landscape.” As a result, it was found that the EOLA of an individual in the cultural landscape is based on a co-evolutionary system of values, tolerance, and responsibility. It is manifested in various forms and types of creative activity (cognition, communication, action) mastered and practiced by an individual in the cultural landscape environment. The dynamics of its development are set by the trajectory of the culturally relevant process of space reclaiming: “adaptation-comprehension-creativity.” It is represented in the correlating EOLA methods: life perception, life comprehension, and life creation. We outlined these methods based on cultural functions and structure. They reflect all areas of individual consciousness and provide the unity and interrelation of cognition, experience, and action, an active manifestation of “self” - self-identification, self-determination, and self-realization in the process of cultural reclaiming of the surrounding cultural landscapes.

At the same time, the problem of diagnosing the maturity level of students’ EOLA methods in the cultural landscape in the context of ideas of the cultural phenomenon and the post-non-classical vector of science development is practically uncomprehended. Only individual diagnosing in theory and practice enables assessing a person’s vital activity in the context of his life path and the values and related meanings (KARPINSKY, 2002; KORZHOVA, 2015).

This study is aimed at solving this problem. Its purpose is to develop a theory and methodology for assessing the EOLA maturity level in students and testing it in academic practice. The presented purpose determined the study hypothesis. The methodology for assessing the maturity level of eco-oriented students’ life activity methods and their implementation in practical school routine will be effective in case:

- The theoretical and methodological fundamentals for diagnosing the EOLA levels will be determined that reflect the cultural and civilizational development trends and the priority of modern educational paradigms and approaches that conform to current challenges of post-industrial society;
- A system of criteria and indicators will be established that facilitates assessing the EOLA maturity level in the cultural landscape in the context of integral and co-evolutionary subject-activity ideas of post-non-classical science and education;
- Diagnosing EOLA levels in Grade 8 school students is done based on the developed assessment methodology.

**LITERATURE REVIEW**

The scientific research claims the dominant cultural role in education is to achieve sustainable development (KONCHINA, 2019). Education, as one of the human areas that determine the future of the world community, plays a crucial role in the formation of cultural and environmental values in the younger generation (MERTIG & JONES, 2000; HAN, 2015; FAHEY et al, 2016; LAURIE et al, 2016; KARPIAK & BARIL, 2008; MAMEDOV et al, 2009).

An important vector of modern education system development is forming a cultural identity with excellent skills in practicing the eco-oriented ways of life of an individual as a condition of sustainable society development (VIUVER, BREUGELMAN, 2008).
The education system is considered a unique tool for developing a cultural and ecological living base (SÁNCHEZ GALERA, 2020; VAN GROENOU, 2005; BUBER, 2001; LEFEBVRE, 2006). The importance of subjective perceptual experience in solving cultural and environmental problems are mentioned (LOI & DILLON, 2006).

In psychological and pedagogical studies (AARNIO-LINNANVUORI, 2019; ZVEREV, 1983; ZAKHLEBNIY, 2017; KAROPA, 2000; KNYAŽEVA, 2019; BONNETT, 2013; CARDINALE & PALMER, 2002; HUNGERFORD, 2009; LIBERMAN, 2010) the importance is highlighted of eco-oriented subjective experience in interacting with the natural and cultural environment.

An essential basis for this research is the papers related to the diagnosis of subjective attitude to nature (DERYABO & YASVIN, 1995), the value hierarchy (ROKEACH, 1973), and the ideas of subject-subject eco-psychological interaction (PANOV, 2011).

MATERIALS AND METHODS

Methodological fundamentals for EOLA level diagnosing in an individual within the cultural landscape

The methodological fundamentals for diagnosing EOLA maturity levels in an individual in the cultural landscape are based on strategic approaches of a universal nature. Their core comprises the meaning forming both objective and subjective culture universals of the post-industrial society. Such strategies include co-evolutionary subject-activity, transdisciplinary, integral, integral-situational, cultural-ecological, and landscape-environmental ones.

The co-evolutionary subject-activity approach (VINOKUROVA & DEMIDOVA, 2019) implements the global trends of the current civilizational stage in education, its ideological ideas of eco-development related to co-evolution and the noosphere and ensuring the transition to sustainable development. The provisions and reference point to be the essential guidelines for creating diagnosing and assessing EOLA maturity levels in the cultural landscape under the context of co-evolutionary subject-activity ideas of post-non-classical science read as follows:

- The activity subject is not separated from the landscape, but he is positioned inside it, turning into the issue of the modern noospheric co-evolutionary process;
- The implementation of co-evolution ideas of “reflected subjectivity,” mutual unity, mutual being of the subject within the cultural landscape based on the subject-subject eco-psychological interaction was proposed by Panov (2011) and reflected the logical, moral, ethical, and esthetic aspects of such interaction (20);
- The awareness of noosphere concept as a world subsequently determined by humanity;
- The paradigm of creativity and project creation in the cultural acquisition of reality;
- The activity subject as a component of the cultural landscape “focuses the system on oneself,” exposes the condition of life-supporting components to analysis and reflection, and reconsiders the activity, stereotypes of personal and public experience of natural resource use (MAMARDASHVILI, 1992; SEMENOV, 2013; STEPIN, 2012).

The transdisciplinary approach involves the exit of scientific knowledge beyond the limits of science, the implementation of the synthesis of various world comprehension forms (philosophy, science, art, etc.), the use of different “languages” in the process of studying, evaluating, and cultural acquisition of the landscape by an individual, which requires unique cognition methods. Such methods include integrating rational and irrational ways of
cognition, holistic ideas, the arrangement of nonlinear reasoning processes, and discourse. Discourse is regarded as a new analysis unit of meaning comprehension and conceptualization acts. It becomes a situational or inactivated cognition. The cognition subject always engages in a particular situation with specific topological properties of coexistence and a coordinated transformation with the cognizable object. The meaning accents of interactive cognition shift to student’s self-determination and self-organization as an “active designer of oneself and one’s environment” (KARPIAK & BARIL, 2008). Such unity creates favorable conditions for overcoming the fragmentary world vision and promotes the dynamic deployment of subjects’ ways of life using various cognition and activity methods.

Life perception means an emotional and sensory perception of the cultural landscape. It ensures the entry of the subject into the cultural space based on creating representations, images, cultural symbols, and cultural landscape signs. This way of life activity correlates with the existential layer of an individual’s consciousness.

Life comprehension involves intellectual comprehension, assessment of the cultural landscape, intellectual and cognitive search for knowledge endowed with personal meaning.

Creative life focuses on innovative, communicative, and constructive ways of the cultural landscape cognition, including design realization, environment future design, making environmentally significant decisions that take into account the short and medium-term prospects, and foreseeing environmental consequences. Creative life should acquire the features of co-creating with the world of nature and transition from impact to interaction and co-evolution.

The integral approach is closely related to co-evolutionary subject-activity and transdisciplinary methods and develops their ideas (VEKLENKO, 2015). The formation of eco-oriented ways of life is based “on a holistic, integral view of the world and the cognizing subject in” as part of a complex socio-natural system having the nature of the whole (of the environment, society, culture, etc.). The operating system of the integral approach is the AQAL model (All Quadrants, All Levels) that enables to present a holistic picture of jointly developing processes and phenomena. This model consists of four quadrants, their development levels, lines, and types. Due to its universality, any phenomenon and object can be studied in their entirety and comprehensively: “internally” and “externally,” individually or jointly. K. Wilber means the internal aspect is an individual’s subjective world - his consciousness, experiences, and spiritual experience. The external aspect means an objective description of worlds – material, biophysical, and empirical. The quadrants are the “horizontal” vector of the integral model representing a comprehensive model scheme. They are sectors (I, WE, IT, THEY) that reflect a particular dimension of the examined phenomenon:

1) the upper left sector is “I” (individual, subjective, intentional);
2) the lower left sector - “We” (cultural, intersubjective);
3) the upper right sector - “It” (individual, objective, behavioral) - classical science, nature, system;
4) the lower right sector - “They” (social, intersubjective), society, ethnicity, nation.

The presented quadrants became the basis for identifying four aspects of eco-oriented life activity at each level.

The integral-situational approach (DEMIDOVA et al, 2021) develops the provisions of the integral and situational (SÁNCHEZ GALERA, 2020; VAN DE VIJVER & BREUGELMANS, 2008; VAN GROENOU, 2005; KARPINSKY, 2002) approaches, as well as ideas of synergetics (complexity theory). This new holistic methodology provides a holistic view of complex phenomena (BUDANOV, 2005; KNYAZEVA & KURDYUMOV, 2021).

The integral-situational approach provides diagnostics of methods of ecological-oriented life activity using a system of culturally oriented critical situations reflecting the continuity of cultural landscape development, from adaptation - comprehension - to constructive and creative action.
The cultural adaptive integral situation contributes to mastering an eco-oriented “life perception” of the cultural landscape. The conditions for its sensory and imaginative comprehension are created. An individual also becomes aware of one’s unique place in it.

The cultural and notional integral situation is focused on “life comprehension” by students of the cultural landscape. It comprises opportunities for developing a value-based attitude to it and awareness of the importance of ethical norms observing its sustainable development.

The cultural and creative integral situation creates conditions for encouraging students to an eco-oriented “life creation,” which acquires the features of co-creation with the natural world in the context of co-evolution ideas.

The cultural and ecological approach offers orientation of the research on developing a methodology for assessing EOLA maturity levels in students in the cultural landscape in terms of ecologization and the cultural paradigm of modern education. “The introduction of an individual into culture as a systemic whole” (I. Ya. Lerner) enables considering the cultural landscape as a culture continuation, where the cultural landscape components are revealed as value formations inscribed in being of a human. In this sense, the cultural landscape is defined as a real cultural and ecological educational environment that effectively understands the man through self-development and co-development with the nearest background (DEMIDOVA et al., 2021; LOI & DILLON, 2006).

The acquisition process by an individual of axiological dominants of the cultural landscape reflects the level of human interaction with the cultural landscape: cultural and adaptive, cultural and semantic, and cultural and creative. They have been identified based on the continuity of cultural deployment by an individual of the environment (8.48) (Table 1)

| Table 1. Levels of human interaction with the cultural landscape |
|---------------------------------------------------------------|
| **Level identification**                                      | **Level description**                                                                 |
| Cultural and adaptive                                         | It comprises the emotional perception of the cultural landscape in the form of image representations woven into the sensory texture of an individual’s consciousness in the form of cultural signs and symbols. An emotional and symbolic representation of objects and phenomena in all the diversity of the cultural landscape is formed. As a result, emotional experiences become sensory support for “signifying,” rooting or an individual within the cultural landscape by his efforts. |
| Cultural and semantic                                          | It defines the awareness and understanding of the cultural landscape (“thought is molded by space” by J. Deleuze). Conscious, meaningful knowledge and values at this stage become a personal achievement and take a subjective form. Such cognition, endowed with environment meanings, is realized in terms of co-evolutionary values for sustainable development. In this regard, value-based knowledge, as knowledge notions, acquire the importance of human existence - “from the mode of knowledge they become the mode of being” (N. M. Mamedov). |
| Cultural and creative                                          | It reflects the subject’s creative activity aimed at sustainable development of the cultural landscape, considering the values that have received a personal meaning at the cultural and semantic level. At this level, values become norms that determine cognitive, communicative, and practical activities. At the same time, each component of the “man-nature” system is regarded as a condition and a tool for changing and developing the other component (“people build and protect their native landscapes, and the landscapes spiritually educate them” - V. A. Nikolaev). In this aspect, an individual begins to act and realize himself as a subject of eco-oriented life activity: developing oneself and one’s environment. |

*Methods used in the study are theoretical, empirical, and statistical.

Source: Compiled by the authors
RESULTS

Based on these theoretical and methodological provisions, we have developed a methodology for assessing EOLA maturity levels in students “Integral project – a journey across the cultural landscape.”

The method “Integral project – a journey across the cultural landscape” is intended to diagnose an individual’s maturity level of eco-oriented life activity.

Its “methodological core” comprised the provisions of the integral situational approach, the theoretical aspects of the subject-subject type of eco-psychological interaction by V. I. Panov (2011), the ideas of the pedagogical technology of culturally oriented essential situations.

According to these theoretical and methodological provisions, the integral project includes a set of projects related to each other by the principle of continuity. Each of them reflects a certain level of EOLA maturity in an individual in the cultural landscape.

The method is aimed at students aged from 14 to 15 years. It is applied individually, in writing. The subjects are given a traveler’s navigator about the cultural landscape the most significant for them. Following the route, they are asked to complete some tasks and record them in a travel diary (Answer Sheet).

The method assumes both quantitative and qualitative assessment. The qualitative evaluation is done at the finished product level, considering the features of each creativity level.

Three levels and relevant projects do the quantitative EOLA maturity assessment in an individual. Each project reflects various aspects of the subject-subject interaction of the individual and the cultural landscape.

- **Level 1** – the Project “Me and the Cultural Landscape” measures the way of eco-oriented life perception, where the individual and the cultural landscape act as separate interaction agents;
- **Level 2** – the Project “Me in the Cultural Landscape” reflects the way of eco-oriented life thinking, where the individual and the cultural landscape become subjects of joint interaction;
- **Level 3** – the Project “Together with the Cultural Landscape” shows the formation of the method of eco-oriented life creation, which assumes the subject-generating interaction of the individual and the cultural landscape.

The levels are provided with a system of 12 tasks. The number of them is determined by four key aspects of the three methods of eco-oriented life activity, which reflects the functional completeness of diagnosing. Thus, each level is defined by four tasks. The content integrity is provided by culturally oriented critical situations (Table 2).

The cultural-adaptive integral situation defines the tasks 1.1, 1.2, 1.3, 1.4 of Level 1 project “Me and the Cultural Landscape.”

The cultural and semantic integral situation determines the tasks 2.1, 2.2, 2.3, 2.4 of Level 2 project “Me in the Cultural Landscape.”

The cultural and creative integral situation determines the tasks 3.1, 3.2, 3.3, 3.4 of the project “Together with the Cultural Landscape.”

The number of the completed project tasks enables making conclusions about the maturity degree of a particular EOLA method. Their assessment is done based on “completed in full” – “partially completed” – “failed.” The projects are implemented sequentially since each previous one makes the basis for forming the next one. The subject who has completed all the tasks of Level 1 project can start Level 2 project.
Table 2. Integrated diagnostic map of eco-oriented life activity (EOLA)

| Levels/Projects | Project tasks to diagnose the key aspects of EOLA activities | Types of culturally-oriented integral situations |
|-----------------|------------------------------------------------------------|-----------------------------------------------|
| **Life perception** |
| Level 1 - Project “Me and the Cultural Landscape” |
| 1.1. Image-being perception |
| 1.2. Meaning formation |
| 1.3. Identification |
| 1.4. Need-based expressive creativity |
| Cultural-adaptive integral situation |
| **Life thinking** |
| Level 2 - Project “Me in the Cultural Landscape” |
| 2.1. Image-semantic relation |
| 2.2. Sense awareness |
| 2.3. Self-identification |
| 2.4. Incentive-productive creativity |
| Cultural and semantic integral situation |
| **Life creation** |
| Level 3 - Project “Together with the Cultural Landscape” |
| 3.1. Image-co-creative |
| 3.2. Sense development |
| 3.3. Self-realization |
| 3.4. Innovative co-creativity |
| Cultural and creative integral situation |

Source: Compiled by the authors

At the beginning of work on an integral project, the students are proposed to read the Guidelines, wherein they are invited to take part in an integral project - a journey across the cultural landscape of their native land. To do it, they need to recall the nearest most significant cultural landscape, with which they will work during the realization of all three projects and record it in their Travel Diary. Then, the Guidelines say that the route has three complexity levels. Each level is a comprehensive project and working on it requires a solution of four interrelated tasks listed in the traveler’s navigator. The transition to the next level is possible only when all the functions of the previous ones have been solved. It means, to complete Level 1, you need to complete all the tasks of Project 1. The results of solving the problems are recorded in the Travel Diary.

The assessment of the task completion degree is done using the “Integrated Project Assessment Map” (Table 3). The Map includes tasks, criteria for their solution, and performance indicators: “Completed in full,” “Partially completed,” and “Failed.”

Table 3. Assessment key for integral projects

| Tasks to be solved within the Project | Solution criteria/completion indicators | Solution criteria/completion indicators |
|--------------------------------------|----------------------------------------|----------------------------------------|
|                                      | Completed in full | Partially completed | Failed |
| Problem 1.1 "The view of an esthete: The faces of the beautiful in the cultural landscape" | A drawing/diagram reflecting the individuality and expressiveness of the visual image of the cultural landscape is presented. Its interpretation is provided, and its attractiveness is justified. | 2 | 1 | 0 |
| Problem 1.2 "Mental map of meanings": the role of aesthetically significant cultural landscapes in my life | A mental map of meanings is created that demonstrates the role of esthetically significant objects of the cultural landscape in a subject’s life and evidences its connection with him. The map contains conclusions and justifications. | 2 | 1 | 0 |
| Problem 1.3 "Map as the esthetics of a place and an individual in the cultural landscape: polarity and involvement." | The locality map displays the sites of polarity and involvement of a person and the cultural landscape, and the subject indicated his place in it. The legend of the map justifies their choice. | 2 | 1 | 0 |
Problem 1.4
The Carte de Visite "The ideal cultural landscape and its inhabitants." The Carte de Visite "The ideal cultural landscape and its inhabitants" creatively summarizes the materials obtained from the previous tasks.

Level 2 "Me in the Cultural Landscape" - Project "Me in the Cultural Landscape" (P2)

Problem 2.1
"The Connoisseur’s view: treasures of the cultural landscape" An iconic and symbolic image of the cultural landscape has been created that represents its sights. Their symbols and related associations are presented. The symbol interpretation is provided.

Problem 2.2
"Meanings' Map: “My choice” A map of meanings “My choice” has been created. The significance of the sights for the local community and personally for the subject is established. The cultural landscape values that are important for an individual are indicated. It is stipulated for what and in the name of what it needs to be saved. The purpose of interacting with the cultural landscape is defined.

Problem 2.3
"The principles of my life activity in the cultural landscape* Ten principles of the subject’s interaction with the cultural landscape are stipulated. They reflect the subject’s position as to preserving its landmarks. These principles reflect the understanding of the cultural landscape as a “repository of historical memory and values” of man and nature interaction features.

Problem 2.4 Ecological and ethical code of the cultural landscape inhabitant.* The subject has creatively summarized the results of the previous tasks and represented them in norms of the Ecological and Ethical Code of the cultural landscape inhabitant.

Level 3 "Jointly with the Cultural Landscape" - Project "Together with the Cultural Landscape" (P3)

Problem 3.1
The Harmonizer’s view: "In search of balance." At least two landscape sites combining a high life quality of population and environment are described and substantiated. While creating the verbal landscape image, metaphors and other means of speech expressiveness were used. There is an interpretation of them.

Problem 3.2 "Timeline of insight into the future co-creativity with the cultural landscape.* The problem is stipulated. At least two focus areas for organizing a co-creative subject’s interaction with the cultural landscape are proposed. The subject’s awareness of the inherent worth of the cultural landscape is made a point of the content of the focus areas. The results are presented in the form of a timeline.

Problem 3.3 From the experience of self-realization in the cultural landscape: “a social test.” Guidelines for the implementation of responsible and creative activities in the cultural landscape have been developed. They reflect an instance, a zone, and a responsibility degree. The Guidelines express awareness and independence of handling generalizations.

Problem 3.4 "Jointly with the cultural landscape: the search for compromises." The formula for achieving harmony between an individual and a cultural landscape was developed independently. A non-standard approach is revealed in the content and design.

*The scale for EOLA maturity assessment (Table 4) determines the result.
Source: Compiled by the authors

The scores received for solving problems in each project are summed up. As the projects are implemented sequentially, the scores of the previous projects are added to the sum of each subsequent project score (cumulative assessment system). The transition to the check-up of the next level project is done if the examinee has solved all the tasks of the previous level.

Level 1 is diagnosed by the sum of scores for completion of Problems No. 1.1, 1.2, 1.3, 1.4 of Project 1 “Me and the cultural landscape.” The number of students is taken into account who successfully completed the four tasks (scored 8 points), partially completed (scored 4-7 points), or failed (3 or fewer points). Processing the next-level project results is done only for students who have completed all the tasks, i.e., scored 8 points.

Level 2 is diagnosed by the score sum for all the problems solved in full in Projects 1 and 2: No. 1.1, 1.2, 1.3, 1.4, 2.1, 2.2, 2.3, 2.4.
The calculation accounts for the number of people who scored 8 points for Project 1 and who have fully completed the four problems of Project 2, “Me in the cultural landscape” (who scored 16 points), partially completed - scored 12-15 points, and failed (12 or fewer points).

**Level 3** is measured by the sum of scores for successful completion of the problems of all three projects: No. 1.1, 1.2, 1.3, 1.4, 2.1, 2.2, 2.3, 2.4., 3.1, 3.2, 3.3, 3.4.

The number of people who scored 16 points in Projects 1 and 2 are taken into account. Of these, the subjects who have fully completed the four problems of Project 3, in total, scored 24 points, who have partially completed - scored 20-23 points, and those who failed - scored 19 or fewer points.

**Table 4. The scale for EOLA maturity assessment**

| EOLA method                  | The sum of scores for solving the project problems |
|------------------------------|-----------------------------------------------|
|                              | Failed | Partially completed | Completed in full |
| **Level 1**                  |        |                    |                  |
| Project “Me and the Cultural Landscape” (P1) | 0-3  | 4-7               | 8                |
| The sum of scores for Project 1 (P1) | 0-3  | 4-7               | 8                |
| **Level 2**                  |        |                    |                  |
| Project “Me in the Cultural Landscape” (P2) | 0-3  | 4-7               | 8                |
| The sum of scores for Projects 1 and 2 P1+P2 | 8-11 | 12-15             | 16               |
| **Level 3**                  |        |                    |                  |
| Project “Jointly with the Cultural Landscape” (P3) | 0-3  | 4-7               | 8                |
| The sum of scores for Projects 1, 2, and 3 P1+P2+P3 | 16-19 | 20-23             | 24               |

**Source:** Compiled by the authors

**Results’ interpretation**

**Level 1** - Project “Me and the Cultural Landscape” (8 scores) - the method of ecologically-oriented life perception dominates.

**Level 2** - Project “Me in the Cultural Landscape” (16 scores) - a method of ecologically oriented life-thinking has been formed.

**Level 3** - Project “Jointly with the Cultural Landscape” (24 scores) - shows that a method of ecologically oriented life-creativity has been formed.

The approbation of this method was executed in 2020 at the experimental sites formed as a part of this study implementation (Project No. 19-013-00749). Schoolchildren of Nizhny Novgorod and Nizhny Novgorod Region (Russia) participated in the experiment: State-Funded Educational Institution “Boarding School “Center for Gifted Children,” Municipal Autonomous Educational Institution (MAEI) “Lyceum No.36”, MAEI “School No. 176”, Municipal Budgetary General Education Institution (MBGEI) “School No. 27”, MAEI “School No. 118”, MBGEI “Secondary General Education School No. 32” (Dzerzhinsk), MBGEI “Secondary General Education School No. 9” (Balakhna, Nizhny Novgorod Region). The study involved 520 students of Grade 8 at these educational organizations. On this basis, the ascertaining stage of the pedagogical experiment was arranged. It enabled revealing the initial level of EOLA development of an individual in the cultural landscape.

The evaluation of the project results complied with the criteria base represented on the integrated assessment map, wherein each task was evaluated in scores. The score number attributed the result to one of the categories – “completed in full,” “partially completed,” “not
completed.” Thus, the development level of student’s life perception as a way of life was evaluated based on Project 1 completion. If all the project problems are solved (the student scored 8 points for the project), we conclude that the life perception is mature. If the tasks are partially completed - the student scored 4-7 points for the project – accordingly, we can diagnose a partially developed life perception. If we get three or fewer points for the project, we can conclude that there is an undeveloped perception of life as a way of life activity in the cultural landscape. This assessment method is also used to diagnose life-thinking (Project 2) and life-creation (Project 3). The students who have completed the tasks of the previous level for the highest score are allowed to join the project of a higher level.

A sample of 520 students showed the following results (Table 5).

### Table 5. The results of diagnostic projects completion

| Students’ EOLA method | Levels/Projects | Task No. | Completed in full | Partially completed | Failed |
|-----------------------|-----------------|----------|-------------------|---------------------|--------|
| **Life perception**   | Level 1 Project “Me and the Cultural Landscape” | 1.1. | 232 | 245 | 35 |
|                       |                 | 1.2. | 246 | 249 | 17 |
|                       |                 | 1.3. | 223 | 230 | 59 |
|                       |                 | 1.4. | 215 | 231 | 66 |
|                       | Students who have coped with the project (persons)* | | 215 | 230 | 77 |
|                       | Students who have coped with the project (%) | | 42% | 43% | 15% |
| **Life thinking**     | Level 2 Project “Me in the Cultural Landscape” | 2.1. | 157 | 49 | 9 |
|                       |                 | 2.2. | 124 | 80 | 11 |
|                       |                 | 2.3 | 111 | 89 | 15 |
|                       |                 | 2.4. | 103 | 94 | 16 |
|                       | Students who have coped with the project (persons)* | | 103 | 96 | 16 |
|                       | Students who have coped with the project (%) | | 47% | 42% | 11% |
| **Life creativity**   | Level 3 Project “Jointly with the Cultural Landscape” | 3.1. | 34 | 32 | 37 |
|                       |                 | 3.2. | 27 | 32 | 44 |
|                       |                 | 3.3. | 18 | 27 | 58 |
|                       |                 | 3.4 | 15 | 24 | 64 |
|                       | Students who have coped with the project (persons)** | | 15 | 18 | 70 |
|                       | Students who have coped with the project (%)** | | 15% | 17% | 68% |

Source: Compiled by the authors

The diagnostic project results are displayed in diagrams that reflect the proportions of students who completed, partially completed, and failed to solve the problems in each project.

### Figure 1. Results of completing the Project “Me and the Cultural Landscape”

Source: Search data.
The diagram in Figure 1 shows that life perception as EOLA method is developed in 42% and partially developed in 43% of the students. Life perception is missing in 15% of the respondents.

**Figure 2.** Results of completing the Project “Me in the Cultural Landscape”

![Bar chart showing the percentage of students who completed the project in full, partially, or failed.]

Source: Search data.

Figure 2 shows the level of life thinking maturity based on the Project “Me in the Cultural Landscape” results. According to the diagram data, 47% of the project participants have developed life-thinking skills. In 42%, they are partially formed, and 11% of schoolchildren who participated in the diagnosis have no formed life-thinking skills.

**Figure 3.** Results of completing the Project “Jointly with the Cultural Landscape”

![Bar chart showing the percentage of students who completed the project in full, partially, or failed.]

Source: Search data.

Figure 3 shows the levels of life creation maturity diagnosed by the results of the diagnostic project “We are in the cultural landscape.” The percentage ratio enables conclusions about
the lack of life creation maturity in most diagnosed students. In contrast, a high and partial life creation maturity is observed in 15% and 17% of the subjects, respectively.

The data were obtained from the results of students' work in the projects facilitated determining the development of students' ways of life in the cultural landscape at the summative stage of the pedagogical experiment. The results are presented in Table 6.

**Table 6. Maturity of ways of life in the cultural landscape**

| Way of life activity | Life perception | Life thinking | Life creativity | Diagnosed habits of life activity are not formed |
|----------------------|-----------------|---------------|-----------------|-------------------------------------------------|
| Milestone scores for diagnostic projects | 18 | 16 | 24 | 3 and fewer |
| Number in % of the total number of subjects | 42% | 20% | 3% | 35% |

**Source:** Search data.

The ratio of the selected EOLA methods in an individual in the cultural landscape of Grade 8-9 students is shown in Figure 4.

**Figure 4. The results of EOLA diagnosing of an individual at the summative experiment stage**

![Pie chart showing life perception, life thinking, life creativity, and diagnosed ways of life activity not formed with percentages.]

**Source:** Search data.

The diagram analysis illustrates that life perception is developed in students (42%), 35% of schoolchildren lack the specific EOLA methods. The development of life thinking was demonstrated by 20% of respondents, and life creation - by 3%.

In general, the summative stage of pedagogical experiment evidence for insufficient development level of nature management culture is obtained. It complicates the co-creative interaction of the subject within the cultural landscape. It forms the basis for developing and implementing the pedagogical model of EOLA methods development in the cultural landscape.

**DISCUSSION**

The study deals with the diagnosis of EOLA skills maturity in school students in the cultural landscape. The relevance of the stated research problem is highlighted by the most important international documents regulating the relations between the states to achieve sustainable development and preserve the landscapes.

In the studies by Bondarevskaya (2012), Zhernosenko et al (2010), Shchurkova (2002), Woodgate (2017), Van de Vijver & Breugelman, (2008) the importance of developing the culture is emphasized to facilitate the development of an active subject in EOLA implementation. The studies by Hart, Hart, Prasad, Rocha et al. (2017) describe the significant educational role of studying the cultural and ecological foundations of the landscape.
cultural heritage, and cultural landscapes. The studies by Mertig, Jones (2000); Han (2015); Fahey, Verstraten, Berry (2016); Laurie, Nonoyama-Tarumi, McKeown, Hopkins (2016); Karpiak & Baril, (2008); Mamedov, Gay, Chumakov (2009) consider environmentally sound methods the vital activity of an individual in his interaction with the cultural landscape. The sustainable landscape development and the cultural and ecological life foundations are maintained. The psychological studies comprise the developed methods for diagnosing the value-based attitude (MERTIG & JONES, 2000), the subjective attitude to nature, the maturity of ecological consciousness (WILBER, 2007; DEMIDOVA & ZULKHARNAEVA, 2018).

In the studies covering the theory and methodology of geo-ecological education and upbringing, the pedagogical models of studying the landscape have been developed (KONCHINA, 2019; AGAPOV & GAINULLINA, 2010; BONDAREVSKAYA, 2012; KARPINSKY, 2002). However, no studies represent systemic diagnostic models, while it seems essential for verifying the efficiency of the developed pedagogical models.

The pedagogic and educational potential of the cultural landscape as the closest environment of the life activity subject, which is aimed at its cognition, sensory perception, and creative development, has been considered in the works of the author’s team for 20 years. The problem of developing diagnosing EOLA maturity level within the cultural landscape in schoolchildren has not been raised previously.

The primary outcome of the research was the development of the author’s methodology for assessing EOLA maturity level in students. It is based upon the qualitative and quantitative assessment of innovative products obtained by school students when performing diagnostic projects. The assessment system facilitates concluding the EOLA methods development in subjects by the levels: life perception, life comprehension, and life creativity.

Teenage students of Russian schools (Nizhny Novgorod) took part in EOLA diagnosing. Thus, about 520 diagnostic projects were analyzed, which was a reference sample. In the course of the study, restrictions were detected. Among them, teenagers’ educational preferences as to cultural landscape examination, EOLA implementation within a particular landscape, and age restrictions – 14-15 years. The number of participants in the experiment was limited to Grade 8 students. The pedagogical experiment considered subjects’ consent and the ethical norms of the study.

The study results justify the conclusion about the dominance of life perception development among students and the specific EOLA methods in 35% of schoolchildren. The developed life thinking skills were demonstrated by 20% of respondents and life creation – by 3%. The materials of this study enrich the theory and practice of geographical, geo-ecological, and environmental education and upbringing related to the study of landscapes in general and cultural landscapes in particular. The presented diagnostic model can be replicated to conduct the study on EOLA maturity level in the cultural landscape in students of schools and institutions of additional geo-ecological education.

This conclusion facilitated outlining the problem area related to developing a methodology for diagnosing EOLA maturity in schoolchildren in the cultural landscape, its testing, and implementation in pedagogical and educational processes in schools. This problem solution is the focus of future research by the author’s team.

**CONCLUSION**

This scientific study focuses on developing a system for diagnosing the development of EOLA methods of an individual in the cultural landscape and implementing the diagnostic system in school practice. The relevance of the stated problem is justified by the need to develop a new type of human culture that can ensure sustainable development of the surrounding and enclosing cultural landscapes and fulfill the human desire to improve the qualities of an individual and the cultural landscape comprising him.
As a result of the completed study, the following results were obtained. The theoretical fundamentals have been developed based on the modern cultural and ecological paradigm of education and co-evolutionary subject-activity, transdisciplinary, integral, integral-situational approaches. The study substantiates the criteria for diagnosing the EOLA methods in an individual in the cultural landscape, reflecting the critical aspects of EOLA methods (life perception, life comprehension, life creativity). The authors’ method of diagnosing the EOLA methods in an individual in the cultural landscape is presented. The process assumes a qualitative and quantitative assessment of the creative products of schoolchildren obtained during the completion of the diagnostic project. An experimental evaluation is executed for EOLA methods in an individual in the cultural landscape using the proposed method. The results obtained proved the perception of life is a dominant way of life in the cultural landscape in a more significant proportion of the subjects, while the other forms of life are expressed to a lesser extent.

The obtained results highlight the necessity to develop and implement the methodology for EOLA development in an individual in the cultural landscape.

ACKNOWLEDGMENTS
The research was done with the support of the Russian Foundation for Basic Research (RFBR) grant, Project 19-013-00749, Competition Code A “Research of theoretical foundations for developing eco-oriented schoolchildren’s life activity in a cultural landscape. The author’s team expresses its gratitude to the teachers of experimental sites of schools in Nizhny Novgorod (Russia) - A. A. Burlak, Yu. R. Kraeva, I. M. Aminkaeva, O. V. Shilova, S. V. Ovchinnikova, O. A. Dubnevskaya.

REFERENCES
AGAPOV, O.D.; GAINULLINA, L.F. Synergetic anthropology as a new humanitarian paradigm. Questions of Philosophy, 2010, 5: p. 173-178.

ARNIO-LINNANVUORI, E. How do teachers perceive environmental responsibility? Environmental Education Research, 2019, 25 (1): p. 46-61. Available at: https://www.tandfonline.com/doi/abs/10.1080/13504622.2018.1506910 Access: May 25, 2021

BONDAREVSKAYA, E.V. Humanitarian methodology of the science of education. Pedagogy, 2012, 7: p. 3-13.

BONNETT, M. Normalising catastrophe: sustainability and scientism. Environmental Education Research, 2013, 19 (2): p. 187-197. Available at: https://www.tandfonline.com/doi/abs/10.1080/13504622.2012.753414 Access: May 25, 2021

BONNETT, M. Sustainable development, environmental education, and the significance of being in place. The Curriculum Journal, 2013, 24: 250-271. Available at: https://doi.org/10.1080/09585176.2013.792672. Access: May 25, 2021.

BUBER, M. Werkausgabe. Berlin: Berliner Akademie der Wissenschaften, 2001.

BUDANOV, V.G. Synergetics of Communicative Scripts. In ZIMMERMAN, R.E.; BUDANOV V.G. Towards Otherland. Languages of Science and Languages Beyond. Kassel: Kassel university press GmbH, 2005: p.189-199.

CARDINALE, B.J.; PALMER, M.A. Disturbance Moderates Biodiversity-Ecosystem Function Relationships: Experimental Evidence From Caddisflies In Stream Mesocosms. Ecology, 83 (7), 2002: p. 1915-1927. Available at: https://www.jstor.org/stable/3071774 Access: May 25, 2021

CHUPRIKOVA, N.I. Consciousness in the functional system of mental reflection, regulation of behavior and activity. Psychology Methodology and History, 2009, 1: p. 113-129. Available at: https://psyjournals.ru/mip/2009/n1/43492.shtml Access: May 25, 2021
COUNCIL OF EUROPE. European Landscape Convention (Florence, 20.X.2000). European Treaty Series, 2000, 176. Available at: http://www.conventions.ru/view_base.php?id=13064. Access: May 25, 2021

DEMIDOVA, N.N.; VINOKUROVA, N.F. Designing an eco-oriented life activity of a student’s personality in the cultural landscape: theoretical and methodological discourse: monograph. Nizhniy Novgorod: Kirilitsa LLC, 2019.

DEMIDOVA, N.N.; VINOKUROVA, N.F.; LOSHCIILOVA, A.A.; ZULKHARNAEVA, A.V.; MATVEEVA, A.V. The development of environmental management culture in high school students in non-formal education with a cultural and ecological focus. APUNTES UNIVERSITARIOS, 11 (1): p. 232-251. Available at: https://doi.org/10.17162/au.v11i1.569 Access: May 25, 2021

DEMIDOVA, N.N.; ZULKHARNAEVA, A.V. Case study technology in the study of environmental problems. Nizhniy Novgorod: Mininsky University, 2018.

DERYABO, S. D.; YASVIN, V.A. Ecological pedagogy and psychology. Rostov-on-Don: Phoenix, 1996. Available at: https://www.twirpx.com/file/1917224/ Access: May 25, 2021

DERYABO, S.D.; YASVIN, V.A. Methodics of diagnosing and correcting attitude towards nature. Moscow: Russian Academy of Education, 1995.

DILLON, J.; RICKINSON, M.; TEAMEY, K.; MORRIS, M.; CHOI, M.Y.; SANDERS, D.; BENEFIELD, P. The value of outdoor learning: Evidence from research in the UK and elsewhere. In Towards a Convergence Between Science and Environmental Education: The selected works of Justin Dillon. Abingdon, Oxon: Taylor & Francis, 2017: p. 179-185. Available at: https://doi.org/10.4324/9781315730486. Access: May 25, 2021

DUNLAP, R. E.; VAN LIERE, K. D.; MERTIG, A.G.; JONES, R.E. Measuring endorsement of the New Ecological Paradigm: A revised NEP scale. Journal of social issues, 2000, 3 (56): p.407-424. Available at: https://psycnet.apa.org/record/2001-14019-004 Access: May 25, 2021

EFFENDI, T.D. Local Wisdom-based Environmental Education through Kikigaki Method: Japan Experience and Lesson for Indonesia. In 12-th International Interdisciplinary Studies Seminar: Environmental Conservation and Education for Sustainable Development, 2019: p. 239. Available at: https://iopscience.iop.org/article/10.1088/1755-1315/239/1/012038/pdf Access: May 25, 2021

GRIMOVSKAYA, L.M. Development of children’s cognitive abilities in project activities on environmental topics. Vestnik of Minin University, 2020, 8 (2). Available at: https://vestnik.mininuniver.ru/jour/article/view/1088/781 Access: May 25, 2021

HART, P.; HART, C. It’s Not That Simple Anymore: Engaging the Politics of Culture and Identity Within Environmental Education/Education for Sustainable Development (EE/ESD). In Schooling for Sustainable Development Across the Pacific. Springer, 2014: pp 37-57. Available at: https://link.springer.com/chapter/10.1007%2F978-94-017-8866-3_2 Access: May 25, 2021

HUNGERFORD, R. Environmental Education (EE) for the 21st Century: Where Have We Been? Where Are We Now? Where Are We Headed? The Journal of Environmental Education, 2009, 41 (1): p. 1-6. Available at: https://www.tandfonline.com/doi/abs/10.1080/00958960903206773 Access: May 25, 2021

KAROPA, G. Eastern European Perspective: Environmental Education in Belarus. Environmental Education, 1999, 61: p. 31.
KAROPA, G.N. *Theory and methodics of ecological education*. Gomel: Gomel State University named after F. Skorina, 2000.

KARPIAK, C.P.; BARIL, G.L. Moral reasoning and concern for the environment. *Journal of Environmental Psychology*, 2008, 28: p. 203-208. Available at: https://psycnet.apa.org/record/2008-12862-002 Access: May 25, 2021

KARPINSKY, K.V. Psychology of the life path of an individual. Grodno: Grodno State University, 2002.

KNYAZEVA, H. Paradigm Shift in the Understanding of the Creative Abilities of Consciousness. *Philosophy. Bulgarian Journal of philosophical education*, 2019, 28 (1): p. 14-22.

KNYAZYOV, E.N.; KURDYUMOV, S.P. Main principles of synergetic worldview. *Site of Sergei P. Kurdyumov*, 2021. Available at: http://spkurdyumov.ru/philosophy/osnovnye-principy-sinergeticheskogo-mirovozreniya/ Access: May 25, 2021

KONCHINA, E. Learning outcomes for sustainable development. In FILHO, L.W. *Encyclopedia of Sustainability in Higher Education*. Cham: Springer, 2019. Available at: https://doi.org/10.1007/978-3-030-11352-0_220. Access: May 25, 2021

KORZHOVA, E.Yu. *Introduction to the psychology of life situations*. St. Petersburg: Society of Memory of Abbess Taisiya, 2015.

KURBATOVA, A.S.; RUBTSOVA, N.V.; VERSHININA, A.Y.; BELYAEVA, T.K.; PUKHOVA, A.G. Environmental culture development in the conditions of educational environment: problems and perspectives. *Turismo - Estudos e práticas*, 2020, n.d. Available at: https://www.semanticscholar.org/paper/ENVIRONMENTAL-CULTURE-DEVELOPMENT-IN-THE-CONDITIONS-Kurbatova-Rubtsova/2ddffcfdc21457a49a3ce291cb42ad9d55082144 Access: May 25, 2021

LAURIE, R.; NONOYAMA-TARUMI, Y.; MCKEOWN, R.; HOPKINS, C. Contributions of Education for Sustainable Development (ESD) to Quality Education: A Synthesis of Research. *Journal of Education for Sustainable Development*, 2016, 10 (2): 226-242. Available at: https://journals.sagepub.com/doi/pdf/10.1177/0973408216661442 Access: May 25, 2021

LEFEBVRE, V. *Research on Bipolarity and Reflexivity*. New York: The Edwin Mellen Press, 2006

LIBERMAN, V.; ANDERSON, N.R.; ROSS, L. Achieving difficult agreements: Effects of positive expectations on negotiation processes and outcomes. *Journal of Experimental Social Psychology*, 2010, 46: p. 494-504. Available at: https://psycnet.apa.org/record/2010-06405-003 Access: May 25, 2021

LOBASHEV, V.D.; TALYKH A. A. Frame approach in technological education. *Vestnik of Minin University*, 2020, 8 (2). Available at: https://vestnik.mininuniver.ru/jour/article/view/1082/775 Access: May 25, 2021

LOI, D.; DILLON, P. Adaptive educational environments as creative spaces. *Cambridge Journal of Education*, 2006, 36(3): p. 363-381. Available at: https://www.tandfonline.com/doi/abs/10.1080/03057640600865959 Access: May 25, 2021

LOSHCHILOVA, A.A.; VINOKUROVA, N.F.; ZULKHARNAEVA, A.V.; KRIVDINA, I.Y.; MARTILOVA, N.V.; KORSHUNOV, M.Y. Practice-oriented educational program of activities of the children environmental association as a tool to form the seventh and eighth-graders environmental responsibility *NUANCES-ESTUDOS SOBRE EDUCACAO*, 2019, 30 (1): p. 601-631. Available at: https://revista.fct.unesp.br/index.php/Nuances/article/view/7095 Access: May 25, 2021
MAGNUSSON, D. Situational analysis: empirical studies of ratios of way-outs and situations. In Psychology of social situations: a textbook. St. Petersburg: Peter, 2001: p. 153-159.

MAMARDASHVILI, M.K. Conscience and civilization. In MAMARDASHVILI, M.K. How I Understand the Philosophy. Moscow: Progress, 1992, 107-121. Available at: http://psylib.org.ua/books_/mamari02.htm Access: May 25, 2021

MAMARDASHVILLI, M. K. Philosophical readings. Moscow: Azbuka-Klassika, 2002.

MAMEDOV, N.M.; GAY W.C.; CHUMAKOV, A.N. Encyclopedia of Environmental Ethics and Philosophy. Volume 2. New York: CENGAGE Learning, 2009.

MOISEEV, N.N. About world view and world understanding. Ecology and life, 1999, 4 (12): p. 4-8. Available at: http://files.school-collection.edu.ru/dlrstore/df233e54-b19c-485d-b9f8-1b0c40f2da61/%5BCIVSal1011_10-11_P2%5D_%5BTS_22%5D.html Access: May 25, 2021

PALMER, P.J.; ZAJONC A.; SCRIBNER M. The Heart of Higher Education: A Call to Renewal. Wiley, 2010.

PANOV, V.I. Climate change and the ecological psychology. Psychology in Russia: State of the Art, 2011, 4: p. 62-73. Available at: http://www.psy.msu.ru/science/psyrussia/2011/panov.pdf Access: May 25, 2021

PRASAD, K. Culture, Communication, and Capacity for Sustainable Development. In: PRASAD, K. Communication, Culture, and Ecology. Communication, Culture, and Change in Asia, vol. 6. Singapore: Springer, 2018. https://doi.org/10.1007/978-981-10-7104-1_1 Access: May 25, 2021

QINGQING, H. Education for Sustainable Development and Climate Change Education in China: A Status Report. Journal of Education for Sustainable Development, 2015, 9 (1): pp. 62-77. Available at: https://journals.sagepub.com/doi/abs/10.1177/0973408215569114 Access: May 25, 2021

ROCHA, P.; NIELLA, F.; KELLER, H.; MONTAGNINI, F.; METZEL, R.; EIBL, B.; KORNEL, J.; ROMERO, F.; LÓPEZ, L.; ARAUJO, J.; BARQUINERO, J. Ecological Indigenous (EIK) and Scientific (ESK) Knowledge Integration as a Tool for Sustainable Development in Indigenous Communities. Experience in Misiones, Argentina. In MONTAGNINI, F. Integrating Landscapes: Agroforestry for Biodiversity Conservation and Food Sovereignty. Advances in Agroforestry, vol 12. Cham: Springer, 2017. https://doi.org/10.1007/978-3-319-69371-2_10 Access: May 25, 2021

ROKEACH, M. The Nature of Human Values. Political Science Quarterly, 1974, 89 (2): p. 399-401. Available at: https://www.journals.uchicago.edu/doi/abs/10.1086/226092 Access: May 25, 2021

SÁNCHEZ GALERA, M.D. Conceptualizing and Understanding Education and Cultural Challenges for Sustainability Transformation. Raising Awareness on the Big Picture. In Educational and Cultural Challenges of the European Sustainability Model. Cham: Springer, 2020. Available at: https://doi.org/10.1007/978-3-030-38716-7_4 Access: May 25, 2021

SCHURKOVA, N.E. Pedagogic technology. Moscow: Russian Pedagogical Society, 2002.

SCHWARZ-HERION, O.; OMRAN, A. Education. In Strategies Towards the New Sustainability Paradigm. Springer, 2015: p. 95-105.

SEMENOV, O.Y. Environmental NGO Activity in the World Political Arena. MGIMO Review of International Relations, 2013, 3 (30): p. 70-74. Available at:
Diagnostics of methods development for eco-oriented life activity of an individual in the cultural landscape

https://cyberleninka.ru/article/n/deyatelnost-ekologicheskikh-npo-na-mirovoy-politicheskoy-arene  Access: May 25, 2021

STENGERS, I. Civilize modernity? Whitehead and Ruminations of Common Sense. Dijon: Les presses du réel, 2017

STEPIN, V.S. About “culture genes” and main goal of philosophy and social-humanitarian sciences. Ecology and Life, 2012, 11: p. 4-11.

The Hangzhou Declaration Placing Culture at the Heart of Sustainable Development Policies Adopted in Hangzhou, People’s Republic of China, on May 17, 2013. Available at: http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CLT/pdf/3_Hangzhou_Declaration_EN.pdf  Access: May 25, 2021

UNITED NATIONS. The Sustainable Development Agenda. Sustainable development goals. Available at: https://www.un.org/sustainabledevelopment/development-agenda/. Access: May 25, 2021

VAN de VIJVER, F.J.R.; BREUGELMANS, S.M. Research Foundations of Cultural Competency Training. In DANA, R.H.; ALLEN, J. Cultural Competency Training in a Global Society. International and Cultural Psychology. New York: Springer, 2008. Available at: https://doi.org/10.1007/978-0-387-79822-6_7  Access: May 25, 2021

VAN GROENOU, W. Education Amidst a Cultural Crisis. In TYMIENIECKA, A.-T. Phenomenology of Life. Meeting the Challenges of the Present-Day World. Dordrecht: Springer, 2005: p. 465-552.

VEKLENKO, P.V. Situational Approach in the Social-Human Cognition: Objectives, Principles, and Categories. Journal of Siberian Federal University. Humanities & Social Sciences, 2015, 5 (8): p. 1003-1010. Available at: http://elib.sfu-kras.ru/handle/2311/16830. Access: May 25, 2021

WILBER, K. The Integral Vision. A Very Short Introduction to the Revolutionary Integral Approach to Life, God, the Universe, and Everything. Boston/London: Shambala, 2007: p. 232

WOODGATE, G. From Environmental Sociology to Ecosociologies. In: CHONÉ, A.; HAJEK, I.; HAMMAN, P. Rethinking Nature: Challenging Disciplinary Boundaries. London: Routledge, 2017: p. 114-127. Available at: https://discovery.ucl.ac.uk/id/eprint/1515823/  Access: May 25, 2021

YASVIN, V.A. Development of regional standard of general education social quality concept. European Journal of Contemporary Education, 2012, 1(1): p. 82-92. Available at: http://dx.doi.org/10.13187/ejced.2012.1.82  Access: May 25, 2021

ZAKHLEBNIY, A.N.; DZIATKOWSKAYA, E.N. Ideas of sustainable development in school. Moscow: Education and ecology, 2017.

ZHERNOSENKO, I.A.; VALITSKAYA, A.P.; OPARIN, R.V. Culture-creative paradigm of ecological education – theory and practice. World of science, culture, education, 2010, 6 (25): p. 131-135. Available at: https://cyberleninka.ru/article/n/kulturotvorcheskaya-paradigma-ekologicheskogo-obrazovaniya-teoriya-i-praktika  Access: May 25, 2021

ZVEREV, I.D. Ecological education of school students. Moscow: Pedagogics, 1983
Diagnostics of methods development for eco-oriented life activity of an individual in the cultural landscape

Diagnósticos de desenvolvimento de métodos para a atividade de vida ecológica de um indivíduo na paisagem cultural

Diagnóstico del desarrollo de métodos para la actividad eco-orientada de la vida de un individuo en el paisaje cultural

Resumo

O artigo apresenta a metodologia do autor para avaliar as atividades de alunos vitais orientados e ecologicamente no cenário cultural. O estudo tem como objetivo desenvolver fundamentos teóricos e metodológicos para diagnosticar a maturidade dos métodos de atividade de vida eco-orientados em escolares sob a paisagem cultural circundante. A base teórica compreende as disposições da abordagem situacional integral, os aspectos teóricos do sujeito-sujeito de interação ecopsiquica, as ideias da tecnologia pedagógica de situações críticas culturalmente orientadas. O método de diagnóstico pressupõe engajar os escolares na implementação de um projeto integral que incorpore projetos individuais relacionados ao princípio da continuidade. Refletem um certo nível de maturidade das atividades do indivíduo da vida ambientalmente orientada na paisagem cultural. Os níveis são facilitados com um sistema de tarefas, e o número da tarefa determina a integralidade do diagnóstico funcional.

Palavras-chave: Vida ecológica. Paisagem cultural. Alunos.

Abstract

The article presents the author’s methodology for assessing eco-oriented vital students’ activities in the cultural landscape. The study aims to develop theoretical and methodological grounds for diagnosing the maturity of eco-oriented life activity methods in schoolchildren under the surrounding cultural landscape. The theoretical basis comprises the provisions of the integral situational approach, the theoretical aspects of the subject-subject type of ecopsychological interaction, the ideas of the pedagogical technology of culturally oriented critical situations. The diagnostic method assumes engaging schoolchildren in implementing an integral project that incorporates individual projects related to the continuity principle. They reflect a certain maturity level of environmentally oriented life individual’s activities in the cultural landscape. The levels are facilitated with a task system, and the task number determines the functional diagnosis comprehensiveness.

Keywords: Eco-oriented life. Cultural landscape. Schoolchildren.

Resumen

El artículo presenta la metodología del autor para evaluar las actividades de los estudiantes vitales orientados al medio en el paisaje cultural. El estudio tiene como objetivo desarrollar fundamentos teóricos y metodológicos para diagnosticar la madurez de los métodos de actividad de la vida orientada al medio en los escolares bajo el paisaje cultural circundante. La base teórica comprende las disposiciones del enfoque situacional integral, los aspectos teóricos del tipo sujeto-sujeto de interacción ecopsiquico, las ideas de la tecnología pedagógica de situaciones críticas culturalmente orientadas. El método de diagnóstico supone involucrar a los escolares en la implementación de un proyecto integral que incorpore proyectos individuales relacionados con el principio de continuidad. Reflejan un cierto nivel de madurez de las actividades de la vida individual orientadas al medio ambiente en el paisaje cultural. Los niveles se facilitan con un sistema de tareas, y el número de tarea determina la exhaustividad funcional del diagnóstico.

Palabras-clave: Vida orientada al eco. Paisaje cultural. Escolares.