Educational constructions in distance learning landscape design

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Abstract. The article examines the educational component of the distance learning format for bachelors landscape design, considering the study of the disciplines of the art cycle, considers the methodological foundations and approbation of the model for the formation of dynamic knowledge in distance learning. The possibilities of stimulating the creative process and obtaining the desired educational product in a distance learning format are described. The content of educational constructions is analyzed, the significance of the development of motivational and emotional spheres, the development of emotional intelligence is indicated. The distance learning format in its new capacity is becoming more meaningful for the user and public expectations. The only competitive knowledge in a rapidly changing world is constantly forming new dynamic knowledge. In the process of self-renewal, innovation passes through a spiral of knowledge, acquires specificity, and begins to be realized. In a distance learning format, constantly forming new knowledge through its translator becomes available and acquires a new carrier, through certain metamorphoses. In experimental educational activities, a landscape cluster has proven itself well, including landscape design, Land art, eco-design, public art. Bachelors create art objects, work in the genres of performance and installation. prepare their own original works, which are presented at the reporting exhibition.

1 Introduction

Education technologies and their forms are correlated by the achievements of science and technology, information architectonics, and structural components of society. Distance learning has become a logical inclusion in the education system, the response of the education system to the needs of society. The role of distance learning is discussed in the works of V. T. Volova, M. P. Karpenko, E. N. Kulemina, E. B. Sergienko, V. I. Soldatkina, D. E. Kolosova, E. N., V. P. Yastrebtsova Tikhomirov, and others. [1] The methodology of distance learning is devoted to the work of A. A. Vostrikova, T. A. Vasilkova, O. P. Okolelova, V. A. Yarovenko. L. Aleshin, A. A. Ivanikov, B. Bim-Bad, V. V. Davydov, T. V. Kovaleva, V. N. Lazarev, A. N. Tikhonov, A. V. Khutorskoy, etc.). [2], [3], [4], [5]. The effective use of distance learning depends on pedagogical ideas and further scientific research. The distance learning format is a direct connection between a

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teacher and a student through a variety of forms of Internet technologies, which provide a multi-contact and a rather flexible form of communication. [6], [7], [8], [9]. A flexible communication system allows you to integrate offline and online forms of education, about which L.Ya. Nodelman, V.B. Moiseev, V.V. Koreshkov, D.S. Girina, O. N. Yanitsky, Yu.S. Av-raamov studies the merits and demerits of the distance learning format, N. Livingston, S. Frith, E. Gombrich argue. About the perspective of the entry of art disciplines. [10], [11], [12], [13]. The psychological and pedagogical component of the distance learning format through Internet platforms connects the goals, content, teaching methods with the interactive form of their implementation using Internet communications - M.V. Khramova, E.A. Tikhonov O.A. Okhlopkova. This topic is also consecrated in the publications of N. Zakharova, O.Kartavtseva. The distance learning format allows expanding self-knowledge, according to Parker and Johnson, Holmberg, to develop the motivational sphere (Rogers, Maslow, D. Keller) and emotional intelligence (J. Guildford, D. Goleman, G. Gardner, J. Mayer, P. Salovey, X. Weisbach, E. Farnham).

The formation of the modern information environment is characterized by a high degree of fragmentation, which allows you to complete the missing link. New information technologies have significantly changed the way of interpersonal and social communications. The strengthening of visuality shaped the development of "clip" thinking, which contributed to the growth of symbolism in culture and art.

An overabundance of information, symbols and signs levels their significance. In this regard, there is a growing need for sensory perception of the visual image, which will fix the visualization element. The perception of the image and immersion in the content changes the understanding of the meaning, which, in combination of elements, becomes integral. The transmission of knowledge through a video sequence and an informational message should be a volumetric communication that provides a vector for further development and value orientations.

2 Methods

A model for the formation of dynamic knowledge in distance learning.

Students’ independent choice of a comfortable rhythm for performing practical work, the correct allocation of the time resource, and the timing of conducting independent studies will lead to successful activities and a good result if the psychological and pedagogical conditions of distance learning are observed. [14], [15] Dynamic neoplasms in learning appear in the context of large-scale “megatrends”, the globality and diversity of which impart intensity to the actualizing distance format. The distance learning format in its new capacity is becoming more meaningful for the user and public expectations. The only competitive knowledge in a rapidly changing world is constantly forming new dynamic knowledge (Ikujiro Nonaki). In the process of self-renewal, innovation passes through a spiral of knowledge, acquires specificity, and begins to be realized. [16] In a distance learning format, constantly forming new knowledge through its translator becomes available and acquires a new carrier, through certain metamorphoses:

1. Visualization - the material becomes visual it can do without verbal translation. Signs and symbols can constitute a phrase or text;
2. Extroversion - through analysis and metaphor, dynamic increments are transformed into explicit ones, manifest outside in the form of images and content;
3. Combinatorics - unpacking information from words, formulas, models, layouts;
4. Informatization - packaging of manifested knowledge in an implicit form, sealing on demand.
The way of perception is provoked through metaphor, the poetics of description, the formation of the ability to express the inexplicable, the projection of the artistic image onto the material plane and the speaking of the embodiment of the gained knowledge. Imagination through symbols and metaphor combines the gained experience into a single image. Stimulating the creative process through the combination of meaning conflicts and obtaining the desired educational product occur through the creation of:

1. The emotional field;
2. The associative field;
3. The space for the selection of information;
4. Forming a number of dominants;

Through analogy, the process of meaning conflicts (contrasts) is leveled, then combined into a holistic image. This is the way from imagination to logical thinking. The rational and the irrational become one in a creative product, which becomes especially accessible in a distance learning format.

The main structural components of the educational construction (EC) are:

1. Designation of EC target setting;
2. Principles of use of EC;
3. Methods of EC use;
4. Methods for designing the training process by means of EC;
5. Forms of training sessions using EC;
6. Educational features of the subject and object of the learning process;

3 Results

On the basis of the model of the formation of dynamic knowledge in distance learning, an algorithm has been developed for conducting distance practical classes in art and applied disciplines. Samples of current performance and analysis of ratings are made. An analysis of the ranking of students' performance showed an increase in the quality of education and the average grade of performance.

Having analyzed the results of the rating of students in the experimental group (EG) and the results of the rating of students in the control group (CG) of bachelors, we recorded an increase in the performance percentage and the average score in the experimental group.
Based on the results of monitoring the implementation of practical tasks by the bachelors in the control and experimental groups, the level of mastering competencies, the correctness of decision-making and the quality of training increased.

The implementation of educational structures leads to the formation of professional competencies, the designer must:
- have a specific view of the world aimed at the artistic development and change of the spatial environment of the human environment, taking into account the complexity of its social, practical, engineering and worldview aspects of beauty;
- developed creative thinking, the ability to creatively use all elements to create a full-fledged space.
- be able to adapt to the current conditions of the project, conduct a targeted search for unusual solutions, using the ideal combination of the most effective traditional and innovative tools and technologies in this case; be able to work in a project team of professionals from different fields;
- master the creative approach of the architect and designer, artistic skills and composition, graphic technology, space-plastic and urban modeling and the expression of project thought at various stages of work.

In experimental educational activities, a landscape cluster has proven itself well, including landscape design, Land art, eco-design, public art. Bachelors create art objects, work in the genres of performance and installation. prepare their own original works, which are presented at the reporting exhibition. In landscape design, more attention is paid to the environmental indicators of the production and operation of the facility: its materiality, energy efficiency, environmental safety and the possibility of disposal after the useful life.
By "environmentally friendly object" we mean the absence of negative impact on the environment, but also psychologically comfortable constituting and harmony of the visual image. Conceptual, prognostic developments open up creative formative opportunities for the Land design. The main idea of the earthly arts of Land Art is the connection between man and nature, the ability to bring things to the environment without disturbing its harmony and having the ability to maintain its primacy. A distinctive feature of this art form is the use of natural objects in a landscape environment. A small part of synthetic objects is brought into the natural environment, the environment is used as a direct participant in the installation, works as a subject and subject of art. In landscape design, it is desirable to realize the optimal relationship between the living world and its habitat. As a result, the environment and culture (cultural ecology) are fused, and architecture, industrial design, visual communications, applied art, and visual art are sometimes called "environmental art." The concept of such associations in the form of a meaningful and spatial environment and its elements, the preservation of non-renewable natural resources and a careful attitude to the achievements of human culture. Based on this, it provides an opportunity to reproduce the value of previous generations and the value of the lifestyle achieved in history.

We consider that the educational component of the distance learning format is a priority and should be supported by innovative technologies and educational content. We believe that the educational constructions that make up the structural core of distance learning are the following:

1. Priority of psychological and pedagogical concepts;
2. Mobility of forms and methods of teaching;
3. Relevance, adaptability and bio-availability of educational content;
4. Bio-safety and appropriateness of information technology;
5. Strategy "background" and the "starting blocks";
6. Freedom of choice and tolerance of forms of education;
7. Modular functionality;
8. Intensification and interactivity;

Educational constructions are fundamental and universal for the application of any innovative technologies enriched by private methods. The versatility of constructions is determined by the methodological base and interpretation of basic concepts that are included in the most powerful arsenal of psychology and pedagogy. The technology of educational universal constructions in distance learning has its intended purpose of synchronous assimilation of educational material by students and advancement along subjective educational routes.

The foundation of educational structures of the subjective educational path in a remote format:

1. Information humanity is the variability of forms of presentation of new knowledge, taking into account the psychophysiological qualities of the student.
2. Bio-appropriate mode - two-pole nature of presentation of the material, combination of stress and relaxation modes.
3. Motivation for formation of active subjectivity of trainees taking into account their heterogeneity and heterogeneity (heterogeneity of contingent).
4. Design and implementation of the educational path with the possibility of choosing the form of training for students.
5. Innovative educational dynamics - the promotion of new knowledge into a popular social product or service.
6. Effective communication is the development of mechanisms and technologies for obtaining new knowledge.
4 Discussion

To facilitate the individual feature of understanding educational content, we are looking for integrative styles that will assemble disparate components into a holistic one. Emotional intelligence with the whole combination of sensory perception, representations, images is especially leading in distance learning. The distance of the student from the usual environment dulls the real perception of reality and generates an individual microcosm. This microcosm can be multifaceted: 1) unproductive - disorganization and idle time; 2) useful - in-depth immersion in educational content; 3) creative - highly specialized study of the direction of interest; 4) productive - self-organized consumption of educational resources. Microcosm is associated with the formation of an individual semantic field and its own cognitive activity. To optimize the formation of an educational learning environment in a distance format, we identified as a generator the regularities of the psychological and pedagogical construction.

To optimize the formation of an educational learning environment in a distance format, we identified as a generator the regularities of the psychological and pedagogical structure. Psychological and pedagogical construction can be designated as an innovative component of pedagogical technology, which includes descriptions of structural elements, connections between objects and subjects of the educational process. The construction is controlled by the invariance of a set of educational elements and is a framework that is filled with the necessary didactic structure. The relationship between participants in the educational process in a remote format is implemented by the method of diverse control, feedback with diagnostics and correction of the individual educational path, monitoring of self-organization and self-control of students. The development of the motivational and emotional sphere of distance learners is associated with certain difficulties. That said, students are not in the usual zone of psychological comfort and support from classmates and the teacher. The implementation of practical tasks and the study of theoretical courses require a striving for self-organization, self-actualization, and a high level of responsibility. Distance learning seems deceptively time-consuming. Thus, illusoriness provokes an incorrect distribution of the time resource. Low motivation, disorganization, a new unusual form of presentation of the material lead to a decrease in the level of motivation and emotions. In addition, a decline in the indicators of the effectiveness of the educational process becomes possible. In this situation, to increase the learning potential, you can use the method of motivation formation, created by John Keller, his motivating model "ARCS". Model structure are: Attention, Relevance, Confidence, Satisfaction. This model is universal, it is possible to add the necessary didactic materials. The four stages of the model are used to develop universal methods for presenting material for special disciplines and forms of conducting classes, improvising communication styles and creating learning value for each student. Conducting a distance lesson on an emotional wave, forming an "Event lesson", including the use of individual and group trainings, discussions, collective viewing, the creation of art projects in a digital format will expand the event field of distance learning. Emotional intelligence is a rather complex psychological structure that links the cognitive and emotional spheres. Its development and emphasis are important for the bright professional activities of bachelor-designers, and for increasing the competence of business communications.

Technologies for creating an educational product during distance learning of landscape design:

With a distance learning format, the perception of the visual image is enhanced, which acquires the following modes:

1. Modus-Image-object - an artifact of the material world, image;
2. Modus-Image-medium - a media object, an interface in the space of illusory and reality of the visual potential;
3. Modus - Image-event - rendering of objects;
4. Modus - Image-imaginary - mental constructions of the environment created by an individual experience of a person;

As they work to advance the creative product, students begin to form the imaginary as a mental space in which the concept of the future project is sought. The concept of the imaginary reveals the facets of a visual image, the assembly of which takes place in media space. The visual image is realized as an imaginary image takes the role of the correlate of the event image.

5 Conclusion

A popular educational product is a social personality that significantly demonstrates belonging to a prestigious field of activity. Professionals in any type of activity should have artistic training, developed aesthetic thinking. At the moment, the specialization of various types of activities has replaced figurative thinking with logical schemes, insufficient aesthetic education has brought intuition, anticipation and imagination out of among business qualities. And humanity pays for this by industrial accidents, environmental disasters, interethnic tensions.

Along with the sleeps of narrow specialists, the formation of networks of interdisciplinary directions is the cultural filler of the space. A professional engaged in the problem of "cultural filling" should have a level of figurative thinking that is no longer available to most specialists. Design is the only activity that can penetrate into narrow-professional spheres and revive the aesthetic tradition, while being a cultural factor.

Positioning the developing function of design as a school of creative thinking, we notice that designer phenomena capture the movements and turns of public consciousness. Only in the thinking of the designer can the prototypes of new useful things "flash," followed by the implementation of material construction. The cultural mission of design is clearly traced in the phenomenon of the "cultural layer," which indicates that the subject environment belongs to a particular era. According to archaeologists, our material environment does not form a distinct cultural layer and the archaeologist of the future will see in the layers of our time a mixture of various cultures with multiple intersperses that do not lend themselves to cultural characteristics.

In the context of the implementation of the concept of the "cultural layer," designers will have to ensure the integration of society "horizontally" in a single cultural system. The designer is essentially an industrial figure with the skills of cultural reflection, possessing almost all types of arts functioning in the existing cultural system. A specialist can cope with the tasks with extraordinary thinking, who knows the methods of creative search and the skills of artistic, creative and design activities.

Based on the results of the study, we can indicate the boundaries of the possible use of the construction under study:
· the individual educational path is designed taking into account the peculiarities of thinking and perception of students,
· the configuration of the individual educational path is indicated by the interaction of objects and subjects of the educational process;
· variable verbal and visual communication in the learning process
· possibility of integration and differentiation mode when determining educational content and timing of learning material development;
· control of the volume and diversity of information resources;
· relevance and dynamic content of electronic educational content;
• development and expertise of information educational resources by subjects of the educational process;
• self-realization and self-determination of distance learning subjects in conditions for providing tutoring support;
• integration of trainees into the process of designing an individual educational path;

Taking into account the specifics of mastering by bachelors of artistic and creative disciplines, most of the educational material is broadcast through practical classes online and offline. Combining two forms of training requires a certain degree of efficiency, depth of communication and variability of interaction between participants in the educational process. [17], [18], [19].

References
3. A.F. Eremeev, The boundaries of art (Art, Moscow, 2007)
4. E.F. Seer Psychology of professional development (Ed. Academy, 2007)
5. V.S. Ilyin, Bulletin of the Volgograd State Pedagogical University, 7 (2012)
6. E.P. Ilyin, Psychology of creativity, creativity, creativity, giftedness (Peter, St. Peters burg, 2009)
11. V.V. Kolbanov, Valeology (Dean Publishing House, 2010)
15. A.M. Novikov, Methodology of artistic activity (Publishing house "Eg-weight", Moscow, 2008)
16. V.A. Petrovsky, Personality in psychology: the paradigm of subjectivity (Phoenix, Rostov-on-Don, 2016)
18. N. Zakharova, I. Vlasova, O. Kartavtseva, E3S Web of Conferences 210, 22014(2020). Doi:10.1051/e3sconf/202021022014
19. A.P. Ermolaev and others, New Dictionary of Designer (Moscow, 2014)
20. M.Yu. German, Modernism. Art of the first half of the XX century (Saint Petersburg, 2013)