Nat. Volatiles & Essent. Oils, 2021; 8(4): 12247-12253

NVEO
Natural Volatiles &
Essential Oils

Virtual Learning Environment: The Notion And Means Of Its Realization

Jabborova Shoira Boltaevna[1] , Tadjiyeva Mastura Fayzullaevna[2] , Khamzayev Otaxon Erkinovich[3]

[1]Senior teacher TerSU, Uzbekistan

[2]Senior teacher TerSU, Uzbekistan

[3]EFL teacher TerSU, Uzbekistan

Abstract: The article discusses the concept of "virtual language environment", designed to compensate for the lack of a natural language environment, its structural components, provides the main services and services of the Internet used in teaching a foreign language, notes its role in language education.

Key words: ICT, language education, electronic resources, virtual language environment, authentic, multimedia.

Currently, virtualization processes are paid great attention both at the level of scientific works of a socio-philosophical orientation, in which the phenomenon of "virtual reality" and its use in various areas of the modern information society [1-5] are directly studied, and at the level of scientific and methodological research on the theory and methodology of education [6-10], which substantiate the expediency and effectiveness of using virtualization technologies in the context of informatization of education. It should be noted that in the field of information technology, the hardware and software aspects of virtualization and the possibilities of their use in the educational process [11], as well as the development of an ICT-rich educational environment based on methods and technologies of virtualization, are being actively investigated.

First, let us give a definition of the term "virtuality", which is commonly used to denote the imaginary object. Currently, the meaning of this term is increasingly associated with computer implementation, since it is modern information technologies that make it possible to "see" or visualize theoretical representations of an imaginary object. Nevertheless, according to N. Karpitsky [3], the computer virtual world is only an improvement of the virtual reality already discovered by man.

In a general sense, virtual reality is understood as a semantic environment created by artificial means, which is presented or accepted by the subject of its influence as genuine or close to genuine.

According to the work of N. A. Nosov [8], virtual reality, regardless of its "nature" (physical, psychological, social, technical, etc.), has a number of specific properties:

1) being born means that virtual reality is produced by the activity of some other reality, external to it. In this sense, virtual reality is artificial, created, generated;

2) relevance suggests that virtual reality exists in actual fact, only "here and now", only as long as the generating reality is active;

3) autonomy claims that virtual reality has its own time, space and laws of existence;

4) interactivity means that virtual reality can interact with all other realities, including the generating one, as ontologically independent of them.

According to the work of NP Mikula [12], virtual realities are currently being divided into simulated and interactive ones. The simulated virtual reality is designed to create an image that is detached, independent of its reality, whose task is to present a special, different world to the person involved in it. The task of interactive virtual realities is to give a person the opportunity to correlate this image with reality, change this image by changing the characteristics of objects and participate in this change so as to receive information at the same time, to activate thinking.

It is the use of modern information technologies that makes it possible to "open", make available virtual realities (worlds) of their sciences for knowledge by others.

The learning process is understood as the process of forming a certain system of knowledge, abilities and skills of action in certain situations (competencies) in the student. According to V.S. Efremov [6], virtuality is one of the fundamental principles of the learning process, since there is everywhere an appeal to the student's imagination as a mechanism for generating the virtual world (image, situation). The expansion of the student's virtual world occurs due to the knowledge acquired by him in the learning process, or rather, in the process of educational knowledge of a certain subject area, provided by the interaction of "subject" and pedagogical sciences. Currently, virtual subject learning environments have become quite widespread, which, undoubtedly, was facilitated by the introduction of modern information and communication technologies into the educational process.

Let us consider the process of forming a virtual learning environment for a subject regardless of modern capabilities and means of its implementation, i.e., without taking into account the technical and technological aspects of virtualization.

All sciences (in the narrow sense of the term) are inherent in the initial stage of the process of forming a virtual environment for teaching a subject, defined by the author of this work, conventionally called stage I - "Generation of a virtual environment from a subject area", since any science, studying a particular subject area, sets itself the purpose of identifying the laws of its development, existence and preservation. Each science has empirical and theoretical methods of cognition characteristic of it (including those specific to it), as well as the means of this cognition, including some formal language that allows science to describe this subject area with a high degree of reliability.

The subject area of science is understood as "the set of all objects, the properties of which and the relations between which are considered in scientific theory" [13]. Thus, we can say that each science, by its development with the help of its inherent means and methods, forms a virtual environment of "its" subject area, describing it with "its own" subject language. Note that according to the work of A. M. Novikov [14] science is defined "as a sphere of human activity, the function of which is the development and theoretical systematization of objective knowledge about reality" [14, p. 40].

By a virtual subject area (virtual subject environment) we will understand the totality of all kinds of models of objects of a given subject area in a broad sense, which adequately reflects the existing reality, including models of processes and phenomena. It is these models of the virtual subject environment, which describe the results of scientific cognition, which have a very specific character and, as a rule, are understandable only to a narrow circle of specialists, will further serve as the basis for educational knowledge of subject scientific areas, carried out for educational purposes.

In order to become a virtual environment for teaching a subject, at the next stage, the virtual subject environment should become the subject of methodological science. Let's designate this stage as stage II - "Immersion of the virtual subject environment in methodological science".

The purpose and content of training predetermine the possible interpretation of the methodological training system, the main elements of which, according to the model proposed by AM Pyshkalo [15], are the purpose, content, methods, forms and means of teaching.

The virtual subject environment will be subjected to some didactic processing in accordance with the goals, methods and means inherent in methodological science, conditioned by the selection of the learning content in accordance with the goal setting of the author of the virtual learning environment

for the subject, that is, according to some methodological theory built by a specific author. Let's define this stage as stage III - "Formation of a virtual environment for teaching a subject".

As a result of "didactic processing", that is, "work of methodological theory", the development of the virtual environment of the subject area should occur, which is a directed, natural change, as a result of which a new qualitative state of the object should arise - its composition or structure [13].

Thus, the virtual subject environment is transformed into a certain (specific) interpretation of the methodological system of teaching the subject or a virtual environment for teaching the subject, by which we mean the concrete implementation in practice of the constructed methodological theory without taking into account the means of its implementation.

According to [16], methodological theory is understood as a system of scientific knowledge in the field of teaching methods aimed at acquiring new knowledge and including the following elements:

- an empirical basis (a set of scientific subject knowledge);

- a conceptual basis (fundamental concepts, principles, laws, etc., chosen by the author, on the basis of which he builds a methodological theory; should contain three conceptual blocks: didactic, methodological and subject);

- a conceptual framework (an abstract model of the essential properties and relationships of objects identified in the conceptual basis);

- the logic of the theory (the set of methods of persuasion (proof) admissible in a given methodological theory;

- a substantial superstructure (a set of proposals or actions of the author, which is the subject of a specific study);

- interpretation of methodological theory.

The last stage - stage IV - "Generation of electronic interpretations of the virtual environment for teaching the subject", is directly related to the tools for its implementation. Of course, at the moment, in an ICT-rich educational environment, such a tool is information and communication technologies in all their diversity: from simple software for visualization of graphic models to software systems for the implementation of distance learning technologies.

The purpose of an ICT-rich environment is to create conditions and resources for the implementation of the educational process, organization of activities and management of an educational institution and interaction of participants in the educational process. According to [18], the structure of this environment (or the "correct" idea of the organization of an ICT-rich educational environment) includes "automated teacher's workplace" (a computer connected to the Internet with a projector and a digital board); an "electronic teacher's room" with workstations for teachers and automated workstations for school administration; automated workstations for laboratory work, registration of the results of design work, etc .; areas of free access to computers in the school (for example, in the media library).

Currently, on the basis of an ICT-rich environment, the following tasks are effectively solved: 1) in the field of the educational process; 2) in the field of management of an educational institution; 3) in the field of interaction of participants in the educational process both in class and outside of class [19]. At the same time, the ICT-rich environment in an educational institution makes it possible to provide a pedagogical process at a new qualitative level within the framework of educational and extracurricular processes, changing the nature of interaction between its participants on the basis of virtualization methods and technologies. Note that it is customary to solve tasks 1, 3 both by building a pedagogical system as a whole, taking into account the educational subsystem, and by using a methodical teaching system and its interpretations, including electronic interpretations in the form of virtual learning environments for a subject in an ICT-rich environment. ...

In modern conditions of an ICT-rich educational environment, a prerequisite for the described transformation of a virtual subject environment into a virtual learning environment for a subject should be an adequate reflection of the model of professional activity of a subject area specialist in educational tasks of the content of education, solved using a virtual learning environment for the subject. This is the most important methodological aspect that must be taken into account when building and choosing a virtual learning environment for a subject as a modern interpretation of the IES.

This condition, on the one hand, will ensure the implementation of an activity-based approach in training and will contribute to the formation of the professional competence of a future specialist who is able to solve practical problems arising in professional activity in this subject area. On the other hand, the implementation of the above condition will help to reduce the existing gap between scientific knowledge based on the widespread use of the latest information and communication technologies and taking place directly in science, and educational knowledge realized through the virtual environment for teaching the subject.

Bibliography

1. Deleuze J. Actual and virtual // East. 2006. Issue. 3. [Electron. resource] / http: //www.situa-tion ru / app / j_art_1124 htm.

2. Ivanov DV The concept of virtualization: the key to understanding modernity [Electron. resource] / http://www.soc.pu.ru/materials/golovin/reader/diva-nov/r_divanov1 html.

3. Karpitsky N. Ontology of virtual reality. [Electron. resource] / http: // tvfinarodru / virtual htm.

4. Lutsenko E. V. Virtualization of society as the main information aspect of globalization (the basis of informationno-functional theory of technology development and information theory of value) // Scientific. electron. zhurn. KubSAU. 2005. No. 01 (9). [Electron. resource] / http: //ej.kubagroru / 20-05 / 01/02 / p02.asp.

5. Silaeva VL Substitution of reality as a sociocultural mechanism of society virtualization: Dis. ... Cand. philosophy.sciences. [Electron. resource] / http: //socionavtika.narodru/Staty/diegesis/Silaeva/Realnost_Sodhtm.

6. Efremov VS Virtual training as a mirror of new information technology. [Electron. resource] /http: //www.cfin ru / press / management / 1999-6 / 11.shtml.

7. Kapterev AI Education: real, virtual, imaginary. [Electron. resource] / http: //www.autorun. erej.ru/Our/doclad_2 htm.

8. Nosov N. A. Virtual intelligence. [Electron. resource] / http: // www futurerussiaru / conf / forum_transform_nosov1 html.

9. Rubin Yu. B., Andreev AA Pedagogical system of virtual learning. [Electron. resource] / http: //ito.bitproru / 1999 / III / 2/266 html.

10. Servetnik OL Processes of virtualization as a factor of transformation of the learning process in the university. Sat. scientific. works of SevKavGTU. Ser. "Humanitarian sciences". 2006. No. 4. [Electron. resource] / http: //science.ncsturu/articles/hs/2006_04/ped.

11. Kolesov A. Virtualization technologies in Russia. Infrastructure solutions. PC Week / RE No. 13 (619) April 15-21, 2008. [Electron. resource] / http: //www.pcweekru/slideshows/detail.php? ID = 108705.

12. Mikula NP Implementation of the principle of virtuality in computer training programs // Digital educational resources in the educational process of a pedagogical university and school: Abstracts. report I regional scientific and practical conference. Voronezh: Voronezh state ped. un-t, 2007.

13. Big encyclopedic dictionary. [Electron. resource]. http: //dic.academicru / dicnsf / enc3p / 242778.

14. Novikov AM Methodology of education. M .: Egves, 2006.

15. Pyshkalo AM Methodical system of teaching geometry in elementary school. Abstract of thesis. dis. ... Dr. ped. sciences. M., 1975.

16. Laptev VV Methodical theory of teaching computer science. Aspects of fundamental training / V. V. Laptev, N. I. Ryzhova, M. V. Shvetskiy. SPb .: Publishing house of St. Petersburg. state University, 2003.

17. Karakozov SD Development of the content of education in the field of information and educational systems: training a teacher of informatics in the context of informatization of education. Barnaul: Publishing house Barnaul. state ped. University, 2005.

18. Uvarov A. Yu. Towards the model 1-1. Experience of comparing Russian and American schools // Abstracts. report conf. RELARN-2008. [Electron. resource] / http://wwwrelarn.ru/conf/conf2008/section4/4_31 html.

19. Uvarov A. Yu. Regulations on the infrastructure object of the educational institution "ICT-environment": Draft for discussion. [Electron. resource] / http://www.ug ru / issues07.