

## **Pedagogical Layout of Mobile Educational Environment<sup>1</sup> in the Higher Educational Institution**

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**Abstract:** In this article, the various models and concepts of educational environments are considered, the place of the concept “educational environment” of pedagogics becomes clear, mobility in the contextual characteristic of the educational environment through the comparative analysis with models of educational environments which are widely used in the pedagogical theory and practice is investigated. One of problems of modernization of the Russian educational system is creation of the educational environment in the highest professional educational institution which would promote formation a personal way of development of future teacher that promotes mastering of the technologies and methods of professional training by the modern graduates of pedagogical higher education institutions. Professional mobility which consists in readiness for search and use of new information, both in social life and the professional environment, in the sense of responsibility for the personal activities and the inner freedom in work is one of the most important competences of prospective teacher. We provide own definition of “the mobile educational environment” and show the conditions of successful implementation of information educational technologies in pedagogical layout of the educational environment in higher education institution.

**Key words:** Educational environment • Mobile educational environment • Mobility • A model of the educational environment • Information technologies

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### **INTRODUCTION**

State educational standard of higher education as a normative document adopted in the Russia, which regulates the conditions of teaching of a graduate, affirm the standard of prospective teacher as a professional working in the education system, possessing the system thinking, the ability for conscious reflection, creativity, a high level of personal development, professional mobility and adaptability.

As the result, one of the objectives of modernization of Russian education system is the creation of an educational environment in higher professional education institution which would contribute to the formation of personal development way in a future teacher that promotes mastering of the technologies and methods of professional training by the modern graduates of pedagogical higher education institutions. Modern graduate pedagogical higher educational institution

should be ready to solve the educational and research tasks focused on the analysis of the scientific and practical literature in the field of education; use of the modern technologies for the collection and processing of the experimental data according to the problem in educational research; plan the educational content at different levels of education; promote the socialization, development of a common culture of individual, the conscious choice and further development of professional education programs; systematically improve their own professional skills, be ready to participate in the activities of various professional associations of teachers and communicate with parents (or persons substituting them). This is a reason, why the pedagogical education becomes the social and cultural mechanism that influences the course of the individual development and, where one of its components is professional mobility and the ability to maximize the development of their potential, both in the same profession and in case of a change of professional

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<sup>1</sup>In our study, we have introduced a term "mobile educational environment" into pedagogical thesaurus, substantiated the need of its implementation in Russian pedagogical practice

activities. Thus, one of the most important skills of future teacher must include the professional mobility, which is the readiness to the search and implementation of new information, both in the social life and a professional environment, in the sense of responsibility for their work and the inner freedom in work. This task can be solved either through the formation of professional requirement for mobility, planning the invariant technologies, learning of new and revised content of education, the development of new types of activities, or through the creation of an educational environment for the effective implementation of their professional and personal potentials of each child.

### **MATERIALS AND METHODS**

The studies of the Russian researchers on mobility, professional mobility and educational environments served as the material for our study. In our study, we used a computer programs to create new information products for professional pedagogical training of students.

To accomplish our objectives, we used the following techniques:

- Theoretical (the theoretical analysis of the philosophical, psychological, pedagogical and methodological literature on the target problem; theoretical modeling; and comparative analysis);
- empirical (observations).

### **DISCUSSION**

What will contribute to ensure the future teacher in the higher educational institution, receiving the Bachelor degree, integrate into the changing world, the society and quickly adapt to the social and professional transformations? One of the answers to this difficult question is the necessity of formation of a mobile educational environment and the conditions for the formation of professional mobility in the higher institution.

A term “mobility” which was borrowed by teachers from sociology is widely known in pedagogics. In present, mobility is a term which is widely used in sociology, science and technology. Originally, this term indicated the ability to fast response to emerged changes, willingness to the fast reaction and inclusion into the any activity. The term “social mobility” is widely known and indicates the transition of people from one social group to another. Recently, this definition has been used in pedagogics. A number of authors, for example, L.A. Amirova assumes

that this definition has been used for a long time in pedagogics and professional pedagogics in particular. Thus, in these studies of professional and pedagogical mobility, the development of teacher’s professional mobility in the space of his personal self-realization, the development of professional mobility of teachers in the system of additional education, the author explores the phenomenon of mobility in education in details, identifies and scientifically explains “Intrinsic characteristics (integrity, complementarity and coherence) and structure (activity, readiness, adaptability and creativity) of professional mobility of the teacher as value-semantic content of personality which is used for the diagnostic of developmental levels of professional mobility of the teacher and the layout of further development process” [1, p. 135].

We share the author’s position that the professional mobility of the teacher is a requirement of time. Professional mobility is determined by the environment that is created and formed depending on the subject-subject interaction, objectives of subject’s activity and the characteristic of their personalities.

The alignment and testing of emerging models of training form the demand for the introduction of new terms and definitions that can be borrowed from different sciences. In present, there is a need in education to introduce a definition of a “mobile educational environment” which is genetically related to the terms “educational environment”, “mobility” and “professional mobility” which are equally interpreted both by Russian and foreign authors [2, 7, 9, 10]. In this case, the determination of the nature and components of mobile educational environment has to be determined.

The concept of “educational environment” is widely used by the Russian teachers and in the humanitarian sciences. This is related to the fact that education is understood as a process and result of a wide range of diverse factors, therefore the multiplicity of these effects emphasizes the understanding that education, learning and personal development occur in the educational environment.

Understanding the fact that the attention to the personal development is required based on the environment of interaction has appeared long time ago. Although in this study we do not intend to describe the history of the studied question, nevertheless, the studies of S.T. Shatskiy, L.S. Vygotsky and other scientists admitted the importance of social environment for development and formation of child’s personality also must be paid attention.

Russian scientists V.A. Orlov, V.I. Panov, V.V. Rubtsov, V.I. Slobodchikov, V.A. Yasvin and others have introduced to the academic community and successfully exploited the concept of “educational environment” because of the clear understanding of the fact that “... education, training and development occur not only under the influence of directed efforts of teacher and not only depend on the individual and psychological characteristics of the child” was formed by the end of the 20th century. “They are essentially determined by sociological and cultural conditions, subject-spatial environment, the nature of interpersonal interaction and other environmental factors” [2, p. 23].

In the natural conditions, a man is in an environment which provides educational functions, includes various connections and human interaction with surrounding world.

“The initial basis for understanding of the term “educational environment” is the concept on the mental development of a person during its education should be considered within the context “a man – environment” [3, p. 24]. According to this approach, the educational environment in pedagogics is a system of pedagogical and psychological conditions and influences that form the opportunities for the development of the existing potentials and personal characteristics of the subjects which interact in the educational environment.

In present, there are several models of educational environments established. *Ecological-personal model* of educational environment developed by V.A. Yasvin. The author believes that the term “educational environment” means “a system of influences and conditions for personality formation according to adjusted sample and opportunities for its development contained in the social and spatial-objective environment” [4, p. 48]. To possess the development effect, the educational environment should ensure the opportunities for development and self-development of all subjects of the educational process (students and teachers) and include the following structural components:

- space-subjective, – the classrooms, buildings and adjacent territories;
- social, – the character of the relationship between all subjects of the educational activity (students, teachers, parents, administrators, etc.);
- psychodidactic, – educational content and methods which are determined by objectives of the educational process.

Psychodidactic model of the educational environment of the school is developed by V.P. Lebedeva, V.A. Orlov, V.A. Yasvin, etc. The model is based on the concept of person-oriented education. This model is to focus on the position of individualization and differentiation of subject-subjective interaction between teacher and student and special simulation educational environments [4].

Communication-oriented model of the educational environment developed by V.V. Rubtsov. Educational environment is a form of cooperation (communicative interaction). As a result of these interactions, special types of community between students and teachers and between students themselves are formed. The author indicates that the normal development of a child requires his participation in joint activities with adults or other participants in the educational process.

V.V. Rubtsov defined the educational environment as formed complex “system of direct and indirect educational and training effects, implementing explicitly or implicitly the educational aims of teachers characterizing the goals, objectives, methods, means and types of educational process in the certain school” [5, p. 56]. Structural components of the educational environment, such as internal goals of the school, the psychological climate, social and psychological structure of the collective, psychological organization of knowledge transfer, the psychological characteristics of students and others, were identified.

V.I. Panov has proposed the *ecopsychological approach* for development of educational environment model. The basis of the model of *ecopsychological* educational environment in this case is the concept that “the mental development of a man during education process should be considered within the context of the “man–environment”. Then, the educational environment is “a system of pedagogical and psychological conditions and influences that create an opportunity for both disclosure of the hidden interests and skills and the development of existing abilities and personality of the students, according to the inherent individual inclinations and the requirements of the age socialization” [3, p. 125]. The educational environment is comprised by following components: the activities (technological) as the group of different activities that contribute to the education and development of students, communicative - interpersonal interactions, spatial-subjective components which include the spatial and subjective means, the actions and behavior of the subjects of the educational environment.

V.I. Slobodchikov proposed *anthropological-psychological model* of educational environment. The proposed model is based on joint activity of the subjects of the educational process and the variety of the educational environment itself. The educational environment parameters include the resources and the organizational structure and the principles of the organization of the educational environment are the consistency, diversity and variability. The author notes that the educational environment is first of all, the dynamic formation which "... are the system product of interaction between educational space, management of education, place of education and a student" [6, p. 71].

Thus, it becomes clear that, first, the educational environment must be specially organized, structured, socialized and transfer the social and individual cultural experience and, secondly, the educational environment is strived to the objectives of education and serves as the external environment for the subject of education. "The environment is to submersion and momentary or the frequent use of the information flow transmitted by environment to change and improvement of the human being" [6, p. 72].

The alignment and testing of emerging models of educational environments result in the needs to introduce new approaches to their characterization, that lead to the emerging of new models and, as a result, to new terms and concepts. We believe that today, there is a need to introduce models of mobile educational environment.

According to environmental approach, we determined that our model of mobile educational environment should be based, first of all, on the concept of "mobile educational environment", which required to include objects, subjects, system of interactions (interactions) and relations, the information (its sources, content, resources, search conditions and application). Thus, in present, the mobile educational environment is complicate system, which should become as an object of study and modeling of the modern teacher. This is a result of the fact that use of information and communication technologies in education has resulted in revision of interpretation of the concept and structure of the educational environment to achieve a new level, because the structure of modern educational environments become more complicate. We offer our understanding of the mobility of the subjects in the educational environment. Mobile educational environment (suggested by A.V. Vinevskaya) is an organized system of interactions between objects, subjects, tools and techniques for work with information

(sources, content, resources and conditions of search and application), which creates a possible technological transfer and adoption of cultural and educational experience for the subjects of interactions and combining the prospects of building of personal way of development and socialization of subjects in society.

An essential component of a mobile educational environment includes the information, its collection, content, sources, resources, implementation and appropriate use of information computer technologies.

In modern literature, a sufficient number of articles are devoted to the need for the application of information technologies in different level education. A personal computer, equipped with a variety of application software is a powerful developmental tool in the hands of the future professionals that can quickly accomplish the objectives which the traditionally require the prolonged implementation. Technologies of information computer education are relevant in the teaching of future teachers because these enable active use of new knowledge in practice to achieve the best result. The specific software is also used along with the traditional means such as: electronic books, software simulators, test shells, information reference books (encyclopedias); demonstration tools (video and image-movies); educational games; multimedia software which can be used for frontal, group, individual education and self-study at home [8, 11, 12].

Further, we have attempted to implement the information technologies in the education through the organization of media- project to create electronic study books for future teacher and implementation of the project on the organization of Web-school.

It is known that the text manual in the paper version is hardly interesting for a modern student contrary to electronic analogues. We do not consider the advantages of electronic textbooks and will focus on the technology of preparation of the electronic textbook or manual by student's forces themselves, which we apply in Taganrog State Pedagogical Institute named after A.P. Chekhov (TSPI).

During course of pedagogical discipline, the student and teacher collect a considerable amount of electronic documents, texts, slides, presentations which can be used for preparation of the manual. Our textbooks and manuals were prepared by the students of TSPI using MS Office Publisher software. The process included determination of the relevance of the e-book, collection of educational material in the text files, forms a full text version of the textbook content, arrangement of the dictionary,

alignment of the concepts and references in the used dictionaries, formation of a base of educational presentations which were included into the content of the textbook. Later, microfilms to illustrate highlights the problems were filmed and test base and base of information sources were formed. E-manual is easy to use by both teachers and students because promotes a holistic perception of all study courses, “revival” of the study material using video and animation means, increase of learning motivate because the study result is final socially significant product. This agrees with the opinion of foreign researchers [13, 14]. Students of TSPI prepared the study manuals “Special pedagogics for teachers – speech therapist”, “Technologies of pedagogical work of teachers – speech therapist” and “Correction fairy tales”.

The project to create an electronic study is prepared in form of presentation and discussed first, in the form of “black and white” opposition and after, with participation of all attendees.

In TSPI, the Web-school project was implemented which is a relatively new form of information and communication technologies in the educational. This type of education and interactive learning requires the financial support and intellectual resources. Web-school was originally created for mutual learning as a form of students’ independent work and then, became popular among the students of Bachelor of pedagogics course on the faculty of pedagogics and methodology of primary education. The principle of the web-school operation is sufficiently simple. The teacher selected among the students form a working group which is correlate to the number of topics proposed for self-study. Each student organizes webinar on certain topic preparing the report and presentation. The webinar is organized using iMind software module. Time and schedule of the webinars are consistent with the teacher and organized during the evening hours. Only one group is involved in a webinar although, may be joined other attendees. Students of TSPI have prepared the web-schools devoted to: “The social model of disability”, “Inclusive education as the realization of the right to education” and “Your child is enrolled in an inclusive school”.

### CONCLUSION

Thus, the concepts of the information as a required part of the educational environment, fusion of definitions of “mobility” and “educational environment” allow us to formulate the need for introduction of definition of mobile educational environment into pedagogical thesaurus.

This concept requires additional comprehensions and definitions. Our theoretical study identified a number of following problems: the need for further development of model of mobile educational environment; development of principles of mobile educational environment in the pedagogical higher institution, its structure, conditions, factors corresponding to requirements of the environmental approach; the study of the characteristics of the mobile educational environment model implementation using additional tools. This study is the first step and requires additional investigations in this field.

In our study, we have introduced a term “mobile educational environment” into pedagogical thesaurus, substantiated the need of its implementation in Russian pedagogical practice.

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