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Technology of Organization of Environment for the Development of Ergonomic Culture

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Abstract: Article is based on the importance of creating an environment for the development of ergonomic culture of teachers and the development of ergonomic culture of modern school teacher, ergonomic knowledge, skills and competencies. Summarizing the conditions for creating a comfortable environment, they are presented in the table. The content of the process of development of ergonomic culture of teachers and the technological system of its implementation, the model of development of ergonomic culture are presented taking into account its components. The purpose of the study is to develop practical suggestions and recommendations on the organization of educational environment and development of ergonomic culture based on the study of the process of developing the ergonomic culture of the teachers. In the professional standard of the teacher, the description of Labor functions by the type of his professional activity is presented in the form of functional functions.

Keywords: environment, teacher ergonomic culture, ergonomic learning environment, technological system, model.

Introduction

As a factor of professional training of future teachers in the world higher education system, it is of urgent importance to carry out the lessons remotely using the Internet and information and communication technologies, to organize them on the basis of a specific project, to choose and systematize educational materials in pedagogical processes aimed at achieving a specific goal, guaranteeing the educational result.

The complex study of the situation in the science, the study of the leading scientific directions in the training of personnel, the analysis of scientific psychological pedagogical, technical and methodical literature, the base of normative-legal documents, as well as The conducted research, the experience of personal professional and pedagogical activity, the description of the educational environment of ergonomics for the effective implementation.

With the increasing number of information available to the participants in the learning process, the need to develop knowledge, skills to improve the health of modern students and teachers, to create a safe, convenient and effective learning process that will ensure the life and health of students and teachers is increasing. The educational environment of the institution changes in accordance with the ergonomically shaped culture of the heads and teachers of the institution. As a result of the lack of ergonomic training in the future teachers, the ergonomic culture of the heads and teachers of the institution is not at the required level, the creation of a new educational environment for the institution, the educational environment, the provision of comfortable, effective and safe adaptation of the workplace to the student, the pedagogical community is

In the professional standard of the teacher, the description of Labor functions by the type of his professional activity is presented in the form of functional functions. Given the ergonomic knowledge, in a modern institution, the list of Labor functions and skills that a teacher must perform is quite large. In this regard, due to the fact that there is a problem that students of pedagogical higher education subjects - do not study educational ergonomics as a subject of study in the preparation of future teachers of the institution, it is worthwhile to establish a special educational ergonomics training for listeners in the educational institution. The problem of creating a

comfortable workplace, an effective and safe learning environment for the teacher and the student can be solved on the basis of improving the ergonomic culture of the teachers of secondary schools.

Training of listeners in the system of professional development and retraining on the module " pedagogical ergonomics " satisfies their need for continuous ergonomic and educational self-improvement as one of the indicators of their ergonomic culture. If we establish the practice of creating a comfortable educational environment for the listeners to master in an institution of improvement of ergonomic knowledge, skills and abilities, then ergonomic education will become a leading condition for the formation and development of an ergonomic culture for the future teacher. In this regard, it will be necessary to identify the essence of the phenomenon of "teacher's ergonomic culture", which is an integral part of the professional and pedagogical culture of the teacher of a modern educational institution, and the components of ergonomic culture to create a new educational ergonomic environment.

The contextual position of the formation of ergonomic culture is the orientation of the educational process for the integrity and consistency of the process of formation of the ergonomic culture of teachers, the formation of a culture of convenience, efficiency and security among teachers and students; the creation of an ergonomic new educational environment of the institution and the use of its pedagogical Our concerted idea bases on the fact that teachers ' ergonomic culture is the leading components of improving the ergonomics culture of teachers in a modern institution through components such as ergonomics knowledge, skills, thinking and orientation.

Literature Review

Philosophical, socio-anthropological issues related to the development of culture A.Begmatov, M.Kaxxarova, A.Mavrolav, J.Tulenov, G.Tulenova, E.Yusupov, A.It was studied by Gaybullaevs. M. from psychologist scientists Davletshin, V.Karimova, A.Leontev, A.Maslau, Z.Nishanova, L.Robinshteyn, N.Safaev, E.Psychological aspects of the problem have been studied by Gaziev. B. on socio-pedagogical, anthropological and acmeological issues related to the development of culture. Adizov, R.Djuraev, A.Jamoliddinova, U.Cabinet, Sh.Mardonov, O.Musurmonova, N.Artikov, B.Rakhimov, D.Ro ' zieva, Z.T.Solieva, D.Sharipova, Sh.Sharipov, Sh.Shodmonova, N.Egamberdieva, M.The Qur'an has been scientifically researched. Although scientific research has been carried out by scientists of various fields in connection with the problem of development of professional pedagogical culture of students of pedagogical higher educational institutions, however, in the conditions of modernization of the personnel training system, the issue of development of ergonomic culture of future teachers has not been investigated. The scientific novelty of the article is that the impact of the educational environment on the activities of students and teachers, as well as the educational process in educational institutions of ergonomic culture has not been adequately studied by our scientists.

The purpose of the study is to develop practical suggestions and recommendations on the organization of educational environment and development of ergonomic culture based on the study of the process of developing the ergonomic culture of the teachers.

As an object of the study, the educational process in the institutions of professional development was selected. Systematization, comparative-logical analysis were used in the study. The empirical source of the study was the results of questionnaire survey..

Methodology

To describe the environment in which teachers develop an ergonomic culture, it is first necessary to determine the content of this concept. The pedagogical encyclopedia has the following interpretation: "the concept of the environment includes the social, cultural, economic factors and natural living conditions of people". As you can see, this definition is very ambiguous. Therefore, we turn to the positions of copyright .

V.S.In Lednev's work, the composition of the environment is used as a starting point. "One of the axioms of pedagogy is that the educational process implies the existence of an information technology level that meets the purpose and task of Education, limited by the requirements of

pedagogical technology, limited economic opportunities and conditions of society, a specially created didactic(pedagogical) environment."

V.I.Kozir adds to this concept the following meaning: "pedagogical means together with the surrounding natural and social world form their habitat for students. The educational environment is a broad, open, changeable system. Such quality can be achieved on the basis of the combination of all pedagogical means, which are at the disposal of both the educational institution itself and the external socio-pedagogical environment." V.I.Kozir argues that the concept of a socio-pedagogical environment includes both the artificially created educational environment and the natural environment of everyday human life, which includes nature, objects and phenomena of Culture, other people and the growing person himself, since this condition determines the condition for his development.

G.M.Kodjaspirova summarizes these concepts: the educational environment of education, the first considers "a system of conditions for the organization of children's lives, specifically aimed at the formation of their relationship with the world, people, each in accordance with pedagogical goals."

A.A.Makareni and others show how important the role of the cultural and creative environment is in adapting the institution's students to changing living conditions. The cultural and creative environment is a combination of material and spiritual factors and tools that contribute to the transformation of a person into an individual and subsequently into an individuality in the process of solving educational problems aimed at the intellectual, artistic and practical development of the individual.

V.A. Levin examines the problem of checking the educational environment in the institution and gives the following definition: "educational environment is a system of influences and conditions for the formation of an individual, as well as its development opportunities, social and spatial - object environment."

As we can see, the interpretation of the concept by the researchers is multifaceted, but the content and essence in general are suitable.

Thus, the environment is an integral system that consists of many constituent components that are in contact with the individual and affect the development of shaxsiyat indirectly and directly at the time of self-development.

We will clarify various aspects of the consideration of the problem of the environment. From the point of view of developing teachers ' ergonomic culture, we are interested in the problem of learning environment.

Başmekov M.I., Poznyakov S.N., Reznik N.A. by examining the problem of the information environment, they express the opinion that" the information environment is a system of communication with human knowledge and serves both for the storage, compilation and presentation of information constituting the content of the accumulated knowledge and for its transmission, processing and enrichment " and thus interpret this concept .

Describing the content of the concept of Environment, Sova A.Eat it. and Gershunskaya R.S. information-describes the environment of the subject: A.Eat it.Sova believes that this is something that surrounds both the pupil and the teacher, but says that only a certain part of the educational cognition environment is involved in the educational process, which is developed by the teacher in accordance with their individual characteristics to the specific educational goals, the cognitive abilities of the students of the institution, R.S.Gershunskaya's point of view A.Eat it.It does not contradict the position, but the author interprets this composition a little differently - as a collection of ideal and material objects used in the realization of the goals of the educational process, the educational cognition environment is not frozen, but a vast concept without measure, it goes as far as our range of knowledge is concerned, and this process is interconnected and unlimited

N.A.Pugal considers how a classroom equipped with all the educational equipment necessary for the realization of the basic objectives of education in an educational cognition environment will be .

T.S.Nazarova and E.S.Polat believes that the educational cognition environment should be developed on the basis of modern pedagogical science and the level of practice, achievements of scientific and technical progress and socio-economic conditions. According to them, this environment is "an environment that is imagined as an atmosphere of interaction education and training, Mutual Assistance, Partnership and cooperation, giving students the opportunity to choose different forms of work, convenient methods of work and rest, maintaining and strengthening physical and moral health."

As you can see, many researchers emphasize the importance of the educational cognition environment.

The learning environment is a room that is equipped with material conditions under which the activities of teachers and students are carried out, in other words, various types of educational equipment, as well as adapted to the activities of teachers and students .

The educational cognition environment formed in a modern institution must be flexible which will enable the educational process to be re-established in accordance with the modern trends and which will form the basis of the institution in the future.

Thus, it can be noted that there is reason to emphasize that the effectiveness of teaching students in classrooms and workshops depends on the creation of favorable environment in them, including components - conditions.

Summarizing the conditions for creating a comfortable environment, which we have highlighted in the research work mentioned above, as an author, we present them in Table 1.

***1- Table.
 Conditions for creating a comfortable environment¹***

Components	Terms of application
Material and technical	Adequate space; availability, location and condition of equipment, instrumentation means; provision of memory materials, reagents, etc.; quality and timely maintenance of equipment; compliance with labor safety and fire safety requirements.
Sanitary-hygienic	Simple natural and artificial lighting; compliance of premises, its condition and maintenance with sanitary and hygienic standards and requirements; reasonable temperature conditions, air exchange and ventilation; the amount of dust, gas, the minimum level of noise; reasonable air humidity; equipment with sanitary and hygienic means and first aid.
Aesthetic	Color scheme for painting buildings and equipment according to design requirements; landscaping; design style and content.
Technical-pedagogical	Maintenance of a reasonable mode of work for students; provision of each student with a normally equipped workplace; equipment of an individual teacher's workplace; creation of conditions for individual and group forms of work; compliance with the requirements for the organization of Labor on a scientific basis.

The development of the teaching model, selection and often the creation of individual samples of educational instruments, as well as the conditions for their use force the teacher to face the specific characteristics of the project activity.

¹ The table is based on the results of the research conducted by the author of the article.

In the last 30-40 years, ergonomics has become a design system, interior, Science, Technical and technological, social, environmental and ergonomic factors are taken into account in solving the main task of improving technical and economic indicators. An important feature of ergonomic design in the last 20 years is the orientation of any project to a person of psychological, anthropometric, social and even individual characteristics, taking into account the "human factor".

This trend is reflected in the surrender of positions in favor of the humanities by technocratic thinking. This fact P.S. Lerner recorded in his work.

Ergonomics is a Natural Science Foundation for ergonomic design. Without knowing its fundamentals, it is impossible to develop and implement the educational tools and the educational cognition environment around it competently and rationally.

Armed with the knowledge of psychology, physiology, hygiene, anthropology tied to the system of uniform requirements of ergonomics, the creators of educational tools and educational cognition muhititiradi. In addition, in the creation of educational tools, in the organization of educational cognition environment, a person gives a comprehensive understanding of what and how to work in this environment or with this educational tool. Thus, it is important to know not only the characteristics of ergonomic indicators, but also how the ergonomic features of objects designed on their basis are formed. For this purpose, the development and evaluation of project proposals are distinguished special network - ergonomic design. In this area, special attention should be paid to "project forecasting", which allows you to choose the best options and filter out the wrong decisions in the process of designing.

The actual process of people's interaction with the learning tool usually goes beyond general guidelines and specific ergonomic requirements. In this case, the problem of designing activities with educational tools, not only the science environment, but also the design of activities in it, arises. And this activity should be psychophysiological, aesthetically, socially and spiritually comfortable.

In order to design an environment for the development of an ergonomic culture of teachers, it is necessary to take into account the influence of factors affecting it from the outside, that is, the spatial and temporal conditions that allow to take into account the information on the role of the designed object in the system "teacher-pupil-medium", as well as the corresponding psychophysiological, anthropometric Also, the essence of the ergonomic and pedagogical design of the learning environment consists in providing the specified characteristics and qualities, material conditions of education, on this basis, rational forms and methods of teacher and reader activity are formed, opportunities for their improvement are created.

The importance of an ergonomic and pedagogical approach from the point of view of forming an environment for the development of an ergonomic culture of teachers is evident.

As already mentioned above, the penetration of new technologies and various industrial technologies into the educational sphere requires the teacher not only the ability to become an interpreter of knowledge, but also to act as a teacher-technologist in conditions in which the educational process in general and its individual components are characteristic.

We also identified the need to develop a model for the development of teachers ' ergonomic culture on the basis of an ergonomically integrated approach, a systematic-cognitive-reflexive learning environment in a way that ensures the relevance of its components. Development of teachers ' ergonomic culture we present the author's model in the form of 2-th picture, taking into account the components included in it.

Since the emergence of the concept of the Model, from the definition of the model as a quality model existing in nature, to a number of scientists of the theory of the model have taken a certain path of progress, up to the object of serious scientific research. V.A.Shtoff defines a model as a "sample" (benchmark, standard) for a phenomenon or process that uses a product in a mass way, to design a desired sample of some object in a broad sense, or as its "niche". V.A.Adding to Shtoff's ideas, we see the model as "a system that is fantastically imagined or material implemented that is capable of transforming the research object in such a way that it is reflected in itself, and that

its study gives us new information about the object." We V.A. Recognizing the views of Shtoff, we describe the model as "a system that gives new information about the object of acquisition that carries out the research object or reflects it in itself, is mentally imagined or materialized." From this definition, it can be understood that the model gives an impression of the specific features, functions of the objects, as well as their inexplicable interaction with the help of other means, as well as the manifestation of the andose of their implementation. The Model demonstrates the probable linkage of the course of the composition and development of the given phenomena. Experience-test cases confirm or deny the degree of reflection of Real movements in the model.

Conclusion

The organization and management of the educational process leads to the development of a culture that is suitable for it, based on what requirements, rules, rules, etc. are established. The scientific analysis carried summarized the following conclusions:

1. Systematization of aspects associated with the process of successful development of ergonomic competence, as well as the tasks of developing the ergonomics culture of teachers, the educational environment of knowledge, the development of didactic conditions of full adaptation of teaching aids to the activities of subjects of the pedagogical process indicate the urgency.

2. The content and implementation of the environment for the development of teachers ' ergonomic culture will be effective only as a result of mastering the basic concepts developed for the development of ergonomic culture in the technological system and the organization of educational cognition activities in the mentioned sequence.

3. Ergonomic competence is a newly formed characteristic of the individual, which is of great importance to the teacher, does not arise spontaneously and depends on the actions of the subjects of the educational process in the object-oriented environment.

4. The implementation of the model of the development of the ergonomic culture of teachers is successfully carried out on the basis of Systematic, Active and competent approaches.

5. As a result of the introduction of the author's model into the pedagogical process, high educational efficiency is ensured, the creation of a safe and comfortable educational environment, the protection of the student's dignity, his life and health, the organization of quality educational processes, the level of professional training of teachers and the fulfillment of the requirements for the ergonomics culture.

Recommendations

Relying on the conclusions, we will bring practical suggestions:

1. It is necessary to prepare future teachers studying in the higher education system with the introduction of teaching the subject of pedagogical ergonomics fundamentals to ergonomic activities and to systematically shape their ergonomic culture.

2. It is desirable to regularly develop the ergonomic culture of the listeners and teachers of professional development and retraining institutions (their professional competence and skills are promoted, as well as to create a safe and comfortable educational environment, to introduce special educational modules that provide for the protection of the dignity of students, their life and Health, Organization of quality educational processes), to conduct.

References

[1]. Bashmakov M.I., Pozdnyakov S.P., Reznik N.A. Information learning environment. - St. Petersburg: "Light", 1997. - 400 p.

[2]. Okulova L. P. Labor activity of a teacher of a modern university (ergonomic aspect) // Modern problems of sciences: a collective monograph. - Izhevsk: Publishing Center "Udmurt University", 2016. pp. 79-101.

[3]. Kojaspirova G.M., Kojaspirov A.Yu. Pedagogical dictionary. - M.: Publishing house. center Academy, 2000. -176 p.

[4]. Kozyr V.I. Theoretical and experimental forecasting of the development of MB in schools as a component of socio-pedagogical technologies // Methods of studying and disseminating best practices. Control over the condition and use of UMB schools. - M.: RAO. - 1990. -213 p.

- [5]. Levin V.A. Examination of the school educational environment. - M.: September, 2000. - 123 p.
- [6]. Lednev V.S. Material and technical base of the system of continuing education and factors of its development // Methodology of theoretical and experimental forecasting of the development of secondary school educational institutions. - M.: RAO. 1990. - 317 p.
- [7]. Lerner P.S. To the teacher about engineering and technical design // School and production. 1999. - No. 2. - pp. 21-23.
- [8]. Makarenya A.A. Cultural environment: status, structure, functioning. - Tyumen: TOGIRRO. 1997. - 65 p.
- [9]. Pedagogical Encyclopedia. Vol. 4. - M.: Soviet Encyclopedia, 1968. - 911 p.
- [10]. Scarecrow N.A. From devices to complexes, from complexes to systems. // Public education. 1997. - No. 10. - pp. 81-84.
- [11]. Simonov V.P. Pedagogical management: 50 know-how in the management of pedagogical systems. - M.: Pedagogical Society of Russia, 1999. - 430 p.
- [12]. Cheredov I.M. Forms of educational work in secondary school. - M.: "Enlightenment", 1988. - 160 p.
- [13]. Shtoff V.A. Problems of methodology of scientific cognition / V.A.Shtoff. - M.: "Higher school", 1978. - 269 p.
- [14]. Yastrebtseva E.N. The concept of the development of the educational and material base of the school media library. - M., 1990. - 19 p.