

**TALABALARNING TA'LIM SIFATINI
TAKOMILLASHTIRISHNING ERGONOMIK YONDASHUVLARINING
MAQSADLARI, TAMOYILLARI, SHARTLARI VA MEZONLARI**

Fozil Atabekov dotsent

Toshkent viloyati Chirchiq davlat pedagogika universiteti

Maktabgacha va boshlang'ich ta'lim fakulteti

Maktabgacha ta'lim kafedrası

Anotassiya. Ushbu maqolada ta'lim tizimiga texnologik yondashuv ishlab chiqarish jarayonlari o'xshashlik sifatida qaralishi mumkin o'z ichiga oladi. Ma'lumki, ikkinchisi texnika va insonni bir-biriga bog'laydi. Keyin ergonomikaning ilmiy intizomini o'rganadigan "inson – mashina - muhit" o'zaro ta'sirining mashhur tizimi haqida gapirish mumkin.

Kalit so'zlar: ta'lim tizimi, ta'lim, ergonomik yondashuvlar, ishlab chiqarish jarayonlari o'xshashlik, komponentlar, talabalar ta'lim.

**ЦЕЛИ, ПРИНЦИПЫ, УСЛОВИЯ И КРИТЕРИИ
ЭРГОНОМИЧЕСКОГО ПОДХОДОВ СОВЕРШЕНСТВОВАНИИ
КАЧЕСТВА ОБУЧЕНИЯ СТУДЕНТОВ**

Фозил Атабеков доцент

Чирчикский государственный педагогический университет

Ташкентской области

Факультет дошкольного и начального образования

Кафедра дошкольного образования

Аннотация. Данная статья включает в себя технологический подход к педагогической системе можно рассматривать как аналогию производственных процессов. Общеизвестно, последние связывают тем или иным образом технику и человека. Тогда можно говорить об известной системе взаимодействия "человек – машина - среда", которую изучает научная дисциплина эргономика.

Ключовые слова: педагогической системе, обучающиеся, эргономического подходов, аналогию производственных процессов, компоненты, обучения студентов.

**THEORETICAL FOUNDATIONS OF LEARNING FORMATION
FEATURES OF CHARACTER IN STUDENTS**

Fazil Atabekov Associate Professor

Chirchik State Pedagogical University of Tashkent region

Faculty of Preschool and Primary Education

Annotation. This article includes a technological approach to the pedagogical system can be considered as an analogy of production processes. It is well known that the latter link technology and man in one way or another. Then we can talk about the well – known system of interaction “man - machine - environment“, which is studied by the scientific discipline of ergonomics.

Keywords: pedagogical system, students, ergonomic approaches, analogy of production processes, components, student learning.

The technological approach to the pedagogical system can be considered as an analogy of production processes. It is well known that the latter connect technology and man in one way or another. Then we can talk about the well-known system of interaction “man - machine - environment“, which is studied by the scientific discipline ergonomics. A similar approach makes it possible to study the system “teacher – learning tools – learning environment“, “student - learning tools – learning environment“ in pedagogical technologies.

In the sphere of production and management, the results of ergonomic research are widely used. In the field of teaching, upbringing and education, ergonomics is still only going through a period of formation, although the use of ergonomics in pedagogy and the need to create pedagogical ergonomics was expressed by V.M.Munipov back in 1976. In recent years, works have been published confirming the effectiveness of the use of ergonomics in the development and implementation of modern learning technologies.

The activity of the student and the teacher should be “designed“, organized. To do this, the optimal amount of information should be selected, conditions and means of carrying out activities selected. There is a need for both the teacher and the student to work with educational equipment in the classroom. All this poses the task of designing equipment adapted to the activities of the student and teacher. The presence of learning tools creates comfortable conditions for learning activities. Comfortable conditions, according to psychologists, increase the

efficiency of the teacher and students. Ultimately, it is possible to achieve high learning efficiency.

Pedagogy-ergonomic design allows you to create such tools, complexes and systems of teaching tools adapted to the specifics of the activities of the teacher and students. It is obvious that these funds will have potential pedagogical effectiveness. Pedagogical-ergonomic design is characterized by methods similar to ergonomic design in engineering.

When designing educational equipment, new teaching aids, sanitary and hygienic, psychophysiological, aesthetic, economic requirements, as well as safety requirements should be taken into account. Pedagogy-ergonomic design can be considered in three aspects: taking into account the peculiarities of the activity of the educator and the trainee; identifying the composition of the necessary learning tools for dominant activities; organizing conditions for the implementation of activities with learning tools, for example, an active learning classroom in our study. The creation of a system of learning tools has two areas of pedagogy-ergonomic design: 1) the creation of separate learning tools; 2) the integrated use of educational equipment in the pedagogical process. The first direction reflects the potential effectiveness of the created learning tools. The pedagogical effectiveness of teaching aids can be achieved in the case of integrated use of educational equipment, which implies a prerequisite – a professionally equipped study room.

Changing the type of technologies of human civilizations leads to a change in their aspects. So, for an industrial society, the primary product was goods and the key technology was machinery. The role of a person in production was reduced to the role of an operator. Therefore, ergonomics and other sciences mainly studied human-machine systems, i.e. systems “man - technology - environment”. In a post-industrial society, the primary products are services. The nature of key technologies is also changing. This stage of development is characterized by organizational, activity and

information technologies. The role of a person also changes, he becomes a creator instead of an operator. The new nature of the relationship requires a new basis for interaction. Interaction from the “man–machine – technique – environment system is transformed into a "man–man" system. All these changes relate to personnel, training technologies. The development of an ergonomic approach to technology also acquires a new meaning. The problem of socio-psychological and emotional aspects of educational activity is brought to the fore.

Learning technologies should promote the development of interpersonal relationships, communication, cooperation, interaction, etc.

“Interpersonal relationships are objectively experienced, to varying degrees realized relationships between people.” In the educational process, in the course of solving creative tasks, game classes, course and diploma design, various interpersonal relationships are established between students, between students and teachers, between teachers. Interpersonal relationships develop dynamically, the mechanism of their development is empathy. N.N. Obozov identifies several levels of empathy. Understanding the mental state of another person (without changing their state) belongs to the first level – cognitive empathy. The second level includes emotional empathy. Empathy manifests itself not only in the form of understanding the state of the object, but also empathy with it. Cognitive, emotional and behavioral components include the third level of empathy. For the effective functioning of pedagogical technologies, the last level of empathy is important, which involves interpersonal identification. It can be mental (perceived and understood), sensual (empathized) and, most importantly, effective. The presence of this level of empathy will significantly facilitate the technology of working in creative groups, increase the effectiveness of game classes.

Technologies for the training of civil engineers, training technologies contain various types of joint activities of students, students and trainees, the

trainees themselves. The idea of G.M.Andreeva about the unity of communication and activity involves the creation of comfortable communication conditions with the introduction of ergonomic technologies. This is achieved by changing the layout of the classroom, using appropriate teaching tools. In our opinion, this will lead to the effective use of the developed technologies, which means that the quality of students' education will increase.

Communication aimed at solving the design problem, atypical tasks should ensure the effective implementation of V.V.Zankov's ergonomic technologies. “I will call communication a form of interaction of subjects that is initially motivated by their desire to identify each other's mental qualities and during which interpersonal relationships between them are formed... Joint activity will further be understood as situations in which interpersonal communication is subordinated to a common goal – the solution of a specific task.“

The effectiveness of the educational process depends on the activity of the subject of study – the student. B.F.Lomov considers communication as a special form of activity of the subject. In the course of communication, there is a mutual exchange of ideas, ideas, feelings, a system of “Subject –subject(s)“ relations is manifested and develops, as well as activities. In the structure of communication , he identifies three levels of analysis:

- 1) Macro Level;
- 2) Mesolevel;
- 3) Micro level.

For our research, the most important is the macro level, where an individual's communication with other people is considered as the most important aspect of his lifestyle, educational activities and acts as a complex developing network of relationships. Providing communication at such a level is certainly an important ergonomic characteristic of learning technology.

B.F.Lomov understands the functions of communication as the roles and tasks that communication performs in the process of human social existence. They

are distinguished by informative-communicative, and affective - communicative functions.

The exchange of information between students takes place in any forms and methods of organizing training sessions. It involves the interaction of thoughts, feelings and behavior of partners. The role of the teacher is to maximize the information and communication functions of communication to create a creative spirit in the classroom.

The organization of joint activities of students in creative groups, game teams in the process of their interaction is relevant for higher school teachers. At the same time, conditions are created for regulating the behavior of communication participants through the study of real contacts and the description of mutual influences of each other in the course of joint activities – in the process of social activity. These characteristics relate to the regulatory and communicative function of communication.

The affective-communicative function of communication characterizes the regulation of the emotional sphere of a person. During the lessons, teachers should create conditions for the rapprochement of students' emotional states. If necessary, depending on the type of classes, the teacher can regulate the emotional state of students: either to strengthen or to achieve their weakening.

It is known that the most diverse types of human conditions have a favorable or negative impact on the course of labor activity. Psychologists call these states a functional state. A.B.Leonova writes that the term functional state is introduced to characterize the effectiveness of a person's activity or behavior and assumes, first of all, a solution to the question of the capabilities of a person in a particular state to perform a specific type of activity. The definition of V.I. Medvedev is generally recognized. The functional state of a person is defined as an integral complex of available characteristics of those functions and qualities of a person that directly or indirectly determine the performance of work operations.

The analysis of the structure of any labor (educational) activity allows us to identify its basic components: the subject of labor, the means of labor, the subject

of labor, the labor process and the conditions of its flow. The structure and content of each component can influence the formation of functional states. This allows us to assert that the functional state of students is influenced by: students themselves, teachers, teaching aids, the state of classrooms, internal reserves and individual characteristics of a person, etc. Learning technologies should ensure optimal functional states of students in order to achieve high-quality assimilation of educational material.

L.D.Chaynova introduced a new concept – “Functional comfort” when studying the functional states of a person.

1. She understands functional comfort as an optimal functional state, under working conditions, the functional capabilities of a working person. This contributes to the emergence of a positive attitude to the activity. At the same time, the development of fatigue is delayed, conditions are created for maintaining long-term and highly effective performance without compromising health. With an adequate level of mobilization and psychophysiological functions and a favorable background for activity created, a working person receives inner satisfaction. This form of internal and external relations generates functional comfort. Functional comfort, according to experts in the field of ergonomics, is characterized by a combination of a high assessment of the purpose of the activity with high indicators of all other factors that cause job satisfaction.

2. Functional comfort arises when the characteristics of the means of labor and the characteristics of the conditions of activity correspond to the functional capabilities of the working person. In the case of educational activity, it is the correspondence of the difficulty of the task, tasks, projects, etc. to the mental level of knowledge.

3. With functional comfort, the attitude to activity is also a multicomponent structure. It includes satisfaction from the results of labor, technical and aesthetic characteristics and reliability of the product used, habitability and safety indicators, and other factors.

4. The tasks of ergonomic and directly related engineering and psychological research at various stages and phases of the development and implementation of training technologies are determined by the methodology and technology of design. The design is phased in nature. During the transition from stage to stage, the ergonomic requirements are detailed, adjusted and cover more and more specific and particular technical issues. So, at the initial stage of designing pedagogical technologies, when analyzing options, choosing and justifying the general structure of technology, it is hardly possible to raise any ergonomic questions, except for the main one - determining the general structure of the conditions of activity of students and teachers. Specific ergonomic analysis and consideration of ergonomic recommendations and requirements is carried out at the stages of content selection, selection of methods, training and development tools, distributed in space and time structure of interrelated technological operations. At the same time, logic, methods, means of interaction and methods of coordination are being developed, the educator and students with learning tools.

5. As the main goals of ergonomics in the field of pedagogical technologies, the following goals can be specified:

6. Improving the efficiency and quality of pedagogical technologies that will ensure the quality of training of specialists in the specified conditions and with the level of professional knowledge, skills and abilities defined in state educational standards.

7. Providing comfortable conditions for the activities of students and teachers, which will contribute to the preservation and growth of their health.

8. Providing conditions for creative development, self-development of both students and teachers, formation of personal qualities of future specialists.

To achieve these goals, it is necessary to solve the following tasks:

1. Development of principles of ergonomic technologies taking into account the activities of the teacher, student in a certain information and subject environment.

2. Development of teaching tools, information and subject environment in pedagogical technologies that determine the conditions for improving the quality of students' education.

3. Establishing the principles of creating learning tools and algorithms for working with them for both teachers and students.

4. Promotion and verification of the possibility of integrating a technological and ergonomic approach to the pedagogical system, leading to an improvement in the quality of student learning.

5. Development and implementation of ergonomic pedagogical technologies and their elements that provide comfortable external and internal conditions for the activities of teachers and trainees.

6. Definition of specific categories of ergonomics, reflecting the features of its priority, content and method in the field of pedagogical technologies.

7. Research, discovery and description of facts demonstrating the quality of teaching with ergonomic characteristics of pedagogical technologies.

Subjects of ergonomics in the field of pedagogy will be educational activities (the activity of teaching a teacher and the activity of teaching a student) in the process of interaction with learning tools and under conditions of significant influence of environmental factors on it (the level of development of ergonomics in the country and region, traditions and material base of the educational institution, the personnel composition of universities, the structure and organization of the educational process at the university, university financing issues, etc.).

From a psychological point of view, fundamental for ergonomics is the representation of educational activity, by analogy with the idea of work, in the form of two interacting aspects: external and internal. Externally, educational activity appears as a process of material, informational and energetic interactions of the subject with a certain academic discipline. These interactions are mediated with learning tools and develop in accordance with the specific technology, organization and learning conditions. In the process of a certain learning

technology, students acquire knowledge, skills, and skills that satisfy social and personal needs to one degree or another. The subject of the educational process in the external plan appears as a mover of activity, to the best of his ability and desire to achieve professional qualities.

Literature

1. Портнов, Ю. М. Теоретические и научно-методические основы подготовки квалифицированных спортсменов в игровых видах спорта: автореф. дис. д-ра пед. наук / Ю. М. Портнов. — Москва, 1989. — 51 с.

2. Преображенский, И. Н. О некоторых проблемах в моделировании баскетболиста экстракласса / И. Н. Преображенский, А. Я. Гомельский // Научноспортивный вестник. — 1979. — № 5. — С. 32-34.

3. Стонкус, С. С. Теоретические и методические основы спортивной подготовки баскетболистов: автореф. дис. д-ра пед. наук / Стонкус С. С. — Москва, 1987. — 46 с.

4. Двоглазов, В. В. Диагностика соревновательной деятельности и разработка игровых модельных характеристик баскетболистов: автореф. дис. ... канд. пед. наук / В. В. Двоглазов. — Омск, 1989. — 16 с.

5. Приступа, Е. Н. Модельные характеристики и методика повышения результативности соревновательной деятельности единоборствующих баскетболистов при розыгрыше стандартных положений: автореф. дис. канд. пед. наук / Е. Н. Приступа. — Киев, 1989. — 23 с.

6.ИванковЧ.Т., Литвинов С.А. Технология использования модельно-ситуационных характеристик технических действий восточных единоборств для совершенствования физической подготовки студентов педагогических вузов. // Физическая культура, воспитания образование, тренировка. -2008.- №10.-С.5

7.Иванков Ч.Т., Каргин Н.Н..Физическая культура, как предмет образовательного процесса. // Физическая культура, воспитания образование, тренировка.-2009.- №5.-с.45

8. Иванков Ч.Т.Васильев В.В.,Жуков Ю.Ю.Методы образно – ситуационного мышления в технико-тактической подготовке юных спортсменов Печат.Международн ая научно- практическая конференция,М.: МПУ, 2011 .с.34

9. Иванков Ч.Т. Костин., Г.Д., Арустамян М.В.,Желтоухов С.В. «Нейтрализация экстремальных ситуаций в прикладных видах спорта при сочетании физических нагрузок и технической подготовки в тренировке юных спортсменов» //Теория и практика прикладных и экстремальных видов спорта 2012.-№3. -с.6-9

10.Иванков Ч. Т., Сафощин А.В., Глебнн А.В., Белых – Снлаев Д.В.Управление физической подготовленностью детей школьного возраста на уроках физической культуры на основе единоборств с учетом индивидуальных особенностей // Ученые записки Университета имени П.Ф. Лесгафта.-2014.-№7(111).-С. 76-80 .

11. Иванков Ч.Т., Стефановский М.В., Литвинов С.А. «Организация и проведение студенческих соревнований, по культивируемым видам спорта». (учебное пособие ГОУ ВПО МГПУ М.2015, с.229 с грифом РАЕ).

12.Иванков Ч. Т., Сафощин А.В.,Габбазова А.Я.,Мухаметова С.Ч. «Теория, методика и практика физического воспитания» учебное пособие ГОУ ВПО МПГУ М.2015,с.429 с грифом УМО).

13. ИванковЧ.Т.,Литвинов С.А. «Технология физического воспитания в высших учебных заведениях». (учебное пособие ГОУ ВПО МГПУ с грифом