



MICRO AND MEDIERGONOMICS AS A FACTOR OF INCREASE IN QUALITY-EFFECTIVENESS OF EDUCATION

Submission Date: September 12, 2023, **Accepted Date:** September 17, 2023,

Published Date: September 22, 2023

Crossref doi: <https://doi.org/10.37547/pedagogics-crjp-04-09-09>

Journal Website:
<https://masterjournals.com/index.php/crjp>

Copyright: Original content from this work may be used under the terms of the creative commons attributes 4.0 licence.

X.A.Eraliyev

Deputy Director For Educational And Methodological Affairs Of The National Center For Training Teachers In New Methodologies Of Namangan Region, Uzbekistan

ABSTRACT

Microergonomics "man is another component of the working system", the main goals of ergonomics, the interaction of midiergonomics at the level of workplaces and production tasks, the optimal distribution of functions between man and machine in improving the quality and efficiency of midiergonomics education and study of coordination problems, capabilities of deputy directors, it was thought that appropriate distribution of functions within the system would significantly increase its efficiency.

KEYWORDS

Ergonomic approach, ergonomic culture, ergonomic educational environment, technological system.

INTRODUCTION

Socio-economic development in our country is being carried out rapidly based on world experiences. Today, to ensure optimal working conditions, the greatest ease of processing a machine or device, scientists - mathematicians, biologists, doctors are involved. They began to study human labor, his undisclosed psychophysical resources and capabilities. A few decades ago, in the fifties, the contours of the new science of ergonomics began to appear, the main content of which was to study the functional

capabilities of a person, to create the most suitable tools and working environment for them. Books and articles began to appear on these topics. In addition to researching the general theoretical framework, designers began to have specific guidelines.

Ergonomics (Greek yrgon - work and nomos - law) is a scientific science that comprehensively studies the individual (group of people) in the specific conditions of his (their) activity in modern production. Ergonomics is formed at the intersection of



psychology, physiology and occupational health, social psychology, anatomy and a number of technical sciences. In the conditions of the scientific and technical revolution, the cost of technical equipment and the "cost" of human error in managing complex systems have increased dramatically. Therefore, when designing new equipment and upgrading existing equipment, it is especially important to take into account the capabilities and characteristics of people who will use it in advance and to the maximum extent. In solving such problems, it is necessary to coordinate with each other the recommendations of psychology, physiology, occupational health, social psychology, etc., connect them to each other and connect them to a system of uniform requirements for a certain type of human labor activity.

The main goals of ergonomics are:

- increasing the efficiency of the "human-equipment-environment" system;
- improvement of labor protection;
- providing conditions for the development of a person in the work process;
- correct division of functions between people and technical means;
- use the higher functions of the body (thinking, attention, memory, consciousness).

Currently, microergonomics and midiergonomics are distinguished.

Microergonomics focuses on the study and design of "man - another component of the working system" interfaces. Different types of interfaces are known, for example interfaces:

"man's work"

"man-machine"

"human software"

"human-environment".

Middle ergonomics is the study and design of "man-team", "team-machine", "man-network", "team-organization" systems.

Midiergonomics studies interactions at the level of jobs and production tasks. Midiergonomics interests include:

1. design organizations
2. Work planning
3. Habitability of workplaces
4. Occupational health
5. Design of interfaces for network software products. This is the study and design of "man - working group, team, crew, organization", "team - machine", "man - network, network community", "team - organization" systems, including designing organizations, work planning, workplaces habitability, labor protection, design of common display workstation rooms, design of interfaces for network software products, etc. Interaction at the level of workplaces and production tasks is studied.

Midiergonomics is multifaceted, and first of all, it considers engineering psychology, which studies working conditions in different situations. This is especially important in the development of systems that require high responsibility and nervous tension, for example, flight control towers, where the fate of human life and huge material values depends on the behavior of the operator.

Labor protection is one of the main goals of midiergonomics. According to the labor legislation, labor protection is directly guaranteed by a set of legal norms defining a system of measures aimed at ensuring healthy and safe working conditions. The



safety engineering system includes safety engineering and industrial sanitation services in all sectors of the national economy.

Monitoring and control of compliance with labor protection regulations is carried out by specially authorized state bodies: Gosgortekhnadzor, Gosenergonadzor, Gossannadzor, etc. In addition to them, this work is carried out by trade unions and the technical labor inspectorate under their jurisdiction. Supervision and control service is based on scientifically based, experimentally tested technical requirements, which, of course, ensures the safety of workers. During the development of production, the conditions, nature and content of human labor change significantly. On the one hand, more and more opportunities are opening up to make work easier, to free a person from performing monotonous, labor-intensive manual operations. On the other hand, the rapid growth of energy, speed and other parameters of technology, the increase in the level of automation of technological processes (especially with complete or incomplete automation), the emergence of new factors that have a negative impact on the human body. leads to The trends in the development of modern education are such that the main design challenges are probably related to the search for ways and means of optimal interaction between people and technology.

Midiergonomics studies the problems of optimal distribution and coordination of functions between man and machine in improving the quality and efficiency of education, designs the process of human activity, bases the optimal requirements for the means and conditions of activity, methods of their consideration in the creation and use of equipment. develops. managed and maintained by the individual. Midiergonomics, by studying the relationship between the components of the human-machine system in

educational institutions, serves not only to increase the productivity, reliability and economy of technology, but also helps to achieve the necessary social results - maintaining people's health and personal development in personal life. . The work process helps to increase the content, efficiency and quality of human activity where a person needs to interact with technology. In other words, ergonomics plays an important role in ensuring the quality and safety of work by creating comfortable and reliable equipment.

As mentioned above, midiergonomics is influenced not only by related sciences, but also influences them in the field of theory, method and practice. The impact of midiergonomics is most clearly manifested in the departments of relevant sciences related to human labor and mainly in their practical aspects. In this sense, midiergonomics is related to the scientific organization of work that fulfills ergonomic requirements in current educational institutions. The appropriate distribution of functions within the system significantly increases its efficiency and determines the optimal use of technical tools by the individual in accordance with their purpose. The use of midiergonomic information and the performance of tasks faced by the researcher during the design, creation and operation of various technical systems and machines helps to achieve high quality and efficiency and create safe conditions for human activity.

REFERENCES

1. Абдуллаев С.Х. Технологик таълим ўқитувчиларининг эргономик компетентлиги // Монография. – GlobeEdit is a trademark of Dodo Books Indian Ocean Ltd., member of the OmniScriptum S.R.L Publishing group str. A. Russo 15, of. 61, Chisinau-2068, Republik of Moldova Europe



Printed at: see last page, 2022, ISBN:978-620-2-48669-9.

2. Азизходжаева Н.Н. Педагогические технологии и педагогическое мастерство/учебное пособие для магистратуры всех специальностей. - Т.: ТГПУ им. Низами, 2003. – 192 с.
3. Ўзбекистон республикаси халқ таълими вазирлиги олий ва ўрта махсус таълими вазирлиги маданият ва спорт ишлари вазирлиги. Таълим муассасаларидаги мебель, ўқув-лаборатория асбоб-ускуналари, компьютер техникаси, спорт анжомлари ва бошқа инвентарлардан самарали фойдаланиш ҳамда уларни сақлаш тўғрисида й ў р и қ н о м а (қўлланма). Тошкент – 2010.

