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Psychology of Labor Safety in Industrial Enterprises

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Abstract: *The article provides information on the history of the emergence of safety psychology as a science, its content, and its role in preventing accidents in production. The results of research on mental characteristics, mental processes and mental state, their impact on labor safety, conditions for safe conduct of work depending on a person's character, psychological resistance of a person and psychological causes of accidents, including psychological reasons that make a person consciously allow it, are covered.*

Keywords: *psychology, safety psychology, mental trait, mental process, mental state, mental stress, nervous stress, accident, psychological causes.*

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Introduction

The problem of reducing accidents (injuries, damages, diseases, fires, etc.) in modern production conditions cannot be solved by engineering methods alone. Therefore, the psychology of labor safety plays an important role in ensuring the safety of work.

The word "psychology" consists of two Greek words - "psyche" - soul, spirit and "logos" - teaching, science, and in the traditional sense, all events and processes related to the human spiritual world are its subject. Psychology is the science of mental reflection of reality, mental processes, states, events, and traits in the process of human activity and animal behavior. The research subject of psychology includes such psychological processes and categories as sensations and images of perception, thinking and feeling, activity and behavior. The main tasks of psychology are to reveal the laws of psychology, the formation of human mental states in the unity of phylogenetic and ontogenetic development [1]. Safety psychology is a field of psychological knowledge that develops methods and methods of increasing the safety of work based on the study of the psychological causes of accidents that occur during work and other types of human activity. Also, safety psychology means the use of psychological knowledge aimed at ensuring human labor safety. One of the main reasons for the occurrence of accidents is the insufficient consideration of measures related to labor psychology in the planning of labor protection in industrial enterprises. This means that future engineers do not have sufficient theoretical knowledge and practical skills in labor psychology. Therefore, safety psychology, its subject and object of research, is one of the

urgent issues of researching the main psychological causes of accidents. It is necessary to use innovative pedagogical technologies, modern lectures [2] in teaching subjects related to labor psychology in higher education institutions. The use of e-learning resources [3,4] based on the direct online training system is effective in improving the skills of engineering and technical personnel in production. In the independent study of security psychology issues, it is appropriate to widely use the method of innovative technology-projects aimed at the scientific and creative approaches of students [5].

Problem setting and relevance

The role of safety psychology, types of mental (psychological) activities, mental and nervous stress as a result of work, safe conduct of work depending on the psychological characteristics of a person are problematic and urgent in ensuring labor safety in industrial enterprises.

Security psychology began to form as a separate science in the Commonwealth of Nations in the 1970s and 1980s. For the first time, extended information on the psychology of security was given in the literature of M.A. Kotik [6]. Scientists such as G. V. Grachev, V. E. Lepsky, T. S. Kabachenko, E. N. Volkov, E. A. Dotsenko, Yu. N. Polishuk carried out scientific research on the analysis of security psychology. The issues of the characteristics of the psychology of safety in education are covered in the researches of I.A. Babaeva, V.A. Dmitrevsky [7]. It is necessary to use modern pedagogical technologies [8,9] and interactive methods of teaching in the study of safety psychology in the training of future engineering and technical personnel during the educational process.

Experiments show that most of the accidents and injuries in production are not caused by engineering-design defects or technical-technological reasons in machines, but by organizational-psychological reasons, that is, insufficient knowledge of safety techniques, insufficient training, unknowingly non-observance of safety rules by the worker, dangerous work. it happens under the influence of allowing those who have not passed special studies, not accepting jobs according to their specialization, and similar reasons. As an object of safety psychology, human activity in various forms related to risk is accepted. The following can be included in the research subject of security psychology:

- mental processes that occur during operation and affect safety
- mental state of a person affecting safety of activity;
- mental characteristics of a person affecting the safety of activity.
- Safety psychology deeply studies and analyzes mental processes, mental characteristics and mental states that occur in the course of work.

Research Methods. During the research, methods such as analysis of scientific and teaching-methodical literature, pedagogical observation, comparative analysis, generalization, pedagogical experiment-test, mathematical-statistical analysis were used.

Research Results and Discussions

Based on the tasks of labor psychology and the problems of the psychology of labor safety, mental states can be divided into production mental states and special mental states. A special state of mind can arise in the organization of preventive measures for industrial injuries, injuries and similar unfortunate consequences.

The efficiency of a person's labor activity (work ability) changes depending on the level of mental tension, that is, excitement. Mental stress has a positive effect on work results up to a certain limit.

Lyokin, exceeding the limit, that is, the critical level of this characteristic, can lead to a decrease in work ability to complete loss. Such mental stress is defined as stress beyond the limit.

The standard mental workload of the worker during the period of work should be 40-60% of the maximum level of workload, otherwise, exceeding this limit will lead to a decrease in the worker's ability to work.

Mental tension beyond the limit is divided into brake and nervous manifestations. Inhibitory mental tension is characterized by limitation of movement and slowing down. In this case, the worker cannot demonstrate his professional skills with dexterity, agility and mastery, that is, the thinking process slows down, the ability to remember, inattentiveness and other negative signs appear.

Nervous tension, agitation, mental stress hyperactivity, verbosity, hand and voice tremors are manifested in such signs. In this case, the worker looks rude, upset, often involuntarily observes the condition of work equipment and tools, adjusts his clothes, wipes his hands, and performs similar actions. Of course, all these situations lead to mistakes and accidents.

Depending on the above, the mental activity of a person can be divided into three different components, namely, mental processes, characteristics and states.

Mental processes are the basis of mental activity. Mental processes are divided into such types as cognition, emotional and volitional perception (feeling, perception, remembering, etc.).

Mental characteristics (personal qualities). Mental characteristics include a person's character, worldview, ability to think, and personal qualities include intellectual, emotional, moral and work ability and will. Features are stable and permanent.

Mental state - refers to the nature of mental activity that positively or negatively affects mental processes.

Specific mental states that determine the mental reliability of the worker: paroxysmal fainting, psychogenic changes in mood, mental changes under the influence of taking psychoactive drugs (stimulants, tranquilizers, alcoholic beverages).

Paroxysmal state - fainting of various categories (organic disease of the brain, epilepsy, fainting), that is, loss of consciousness between several seconds and several minutes. Of course, such a situation can cause accidents with various serious consequences, sometimes ending with death.

Psychogenic changes and "affective" (affective-emotional explosion, emotional explosion) situations occur through mental influence. Depression and apathy can last from a few hours to several months. Of course, this is caused by various unpleasant events, conflicting and conflicting situations. In this case, indifference, lethargy, lethargy, inhibition, inattentiveness, decreased muscle movement occurs, and these conditions can lead to a decrease in self-control, and as a result, accidents of various kinds can occur.

An affective state occurs as a result of being upset, insulted, and failure in production. A psychogenic (emotional) narrowing of thinking is observed in a person during an affective state. This increases the speed, aggressiveness and roughness of the movement. The use of psychoactive substances, that is, drugs and alcohol, also causes negative changes in mental state. Mentally active agents include active stimulants (pervitin, phenamine) and tranquilizers (seduxen, elenium).

These drugs, in addition to reducing nervousness and bringing calmness, reduce mental activity, slow down the speed of reaction, cause apathy and drowsiness. This creates conditions for unacceptable mistakes during work and causes accidents.

Personal characteristics of a person are determined by his character ("temperament-customer") and are mainly divided into the following types:

- ✓ choleric - mentally and intellectually active, curious, light-hearted;
- ✓ sanguine - mentally and intellectually active, calm, restrained, but
- ✓ cheerful. natural;
- ✓ phlegmatic - mentally and intellectually sluggish, loose, heavy natured;
- ✓ melancholic - mentally and intellectually sluggish, sad, heavy natured.

In evaluating human character, there are those in the above range of characters, and all of them play an important role in personnel selection.

Depending on the character of a person, the safe conduct of his activities is mainly explained by the following reasons:

- ➢ In order to satisfy human interests, working tools have been improved, modern technical systems have been developed, and new types of risks have been created in connection with this. Physical and mental capabilities of a person develop slowly compared to the rate of growth of the level of external danger, that is, with the development of techniques and technology, a person's resistance to risk lags behind the level of risk;
- ➢ in extremely dangerous, hazardous or harmful working conditions, the probability of a person not complying with safety requirements, making a mistake increases;
- ➢ Accidents increase as a person gradually gets used to and adapts to risks. For example, in order to save time, a person ignores some dangers during work, but accidents do not happen all the time, the proverb "A jug breaks every day, not every day" is ignored.
- ➢ the formation of concepts that not all risks cause accidents, and allowing falsehoods and deceptions at work. Feelings that non-compliance with safety rules is sometimes possible and that it is safe and does not lead to any consequences;
- ➢ as a result of the improvement of techniques and technologies, the level of independent assimilation of security requirements, the rate of work on oneself decreases;
- ➢ safety regulations and requirements are set to the point where they cannot be met;
- ➢ the contradiction between productivity and safety, that is, that ensuring full compliance with safety rules and requirements hinders productivity to some extent.

If the worker does not fulfill the production plan, his salary will be reduced, if he does not fully fulfill the safety rules, there will be no change in his work, i.e. it will not be reduced. Therefore, the worker makes mistakes that lead to accidents during his work due to the following shortcomings: fatigue, illness, lack of education and professional skills, poor morale in the work team. unsatisfactory working conditions, the worker's material and other personal interests, the worker's personal psychological character not meeting the requirements of the production activity, a decrease in the worker's professional ability in extreme conditions after excitement, injury or dangerous situations, consumption of alcohol, drugs and other similar drugs, ob - the effect of weather changes.

Under the same conditions and performing the same task, different situations may occur depending on the following personal characteristics of workers, and this is explained by the underlying causes of accidents: state of the nervous system, character or temperament (client), character of brain activity, ability to think and think, education and information. health, work experience.

These human characteristics give rise to the following psychological reasons for consciously violating safety rules:

- ✓ saving physical effort and time - increasing the level of risk as a result of trying not to perform certain processes that do not affect the quality of the product in order to increase the work rate for his own benefit;
- ✓ getting used to the occurrence of danger or not being able to correctly assess the level of danger;
- ✓ getting used to constant violation, or walking in the concept of "I don't care";
- ✓ to absorb group disorders in the team, "we're all doing it!" - to think that;
- ✓ the ability to make mistakes at work is mainly observed in employees whose specialization does not match their work;
- ✓ overestimating one's work experience and qualifications;
- ✓ making mistakes without believing in one's own abilities and strength;
- ✓ excitement;
- ✓ risk taking;;
- ✓ taking risks depending on the situation, taking risks without expecting any benefits or incentives related to the work.

Such situations are studied in connection with the issues of psychological resistance of the individual. Issues of psychological resistance of the person L.K. Maksimov and L. Yu. It was reflected in Gorokhovatsky's research, in which cases of conscious violation of safety rules by a person with psychological causes of accidents were studied. [10].

Conclusion

It can be concluded that most of the accidents in production are caused by organizational and psychological reasons, and not by engineering-design defects in machines or technical-technological reasons. Therefore, in some cases, 60-70 percent of accidents are directly caused by the injured.

Changes in mental activity under the influence of household and production factors show the need for engineers-organizers in production activities to create and improve a system that controls the mental state of the worker.

References

1. Psychology. Encyclopedia. (Electronic resource). URL:

   https://medlife.uz/encyclopedia/p/psikhologiya/

2. Rakhimov O.D., Ashurova L. Types of modern lectures in higher education, technology of their design and organization.//Problemy sovremennoy nauki i obrazovaniya. 2020. #12(157), issue - 1. P. 41-46. DOI: 10.24411/2304-2338-2020-11203/
3. Rakhimov O.D. Requirements and technology for creating e-learning resources //Sovremennoe obrazovane (Uzbekistan). 2016. T. 202. - S. 45-50.
4. Rakhimov O.D. Requirements and technology for creating electronic educational resources //Sovremennoe obrazovanie (Uzbekistan). 2016. No. 2. - S. 45-50.
5. Rakhimov O.D. Innovative pedagogical technologies: the method of projects as a technology that improves the quality of education //Karshi, TATU Karshi branch. - 2013. - T. 80.
6. Kotik M.A. Psychology and safety. Tallinn. 1987. - S.9.

7. Baeva I.A. Psychology bezopasnosti: history, stanovlenie, perspective. //National psychological magazine. 2007. No. 1(2). - S. 65-69.
8. Rakhimov O.D. i dr. Modern educational technologies //T.: "Science and Technology Publishing House. 2013. -170p.
9. Rakhimov, O.D., et al. "Modern educational technologies." Tashkent, "Science and Technology" Publishing House (2013).
10. Maksimov L.A., Gorokhovatsky L.Yu. Psikhologicheskaya soprotivlyaemost lichnosti i ee vozmozhnye manifestation v professionalnoydeyatelnosti. //Izvestiya Volgogradskogo gosudarstvennogo universiteta. - 2012. No. 3 p. 152-156.