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Personal Determinants of Mental Reliability of College Students in Learning Activities

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Abstract

The paper deals with methodological, theoretical and practical foundations of the problem of mental reliability of a person performing an activity. The problem of personal determinants of reliability is considered. It is concluded that in Russian psychology “reliability” is an interdisciplinary and general scientific concept. The author points out that the study and analysis of this characteristic of the personality of college students makes it possible to arrange and manage professional development.

Keywords: student, learning and professional activity, mental reliability, personal determinants, college

Introduction

One of the priority tasks of higher education is the development of professionally important qualities (PIQ) in future professionals. It makes psychological research in the field of personal professional development important. Professional activity results, on the one hand, in the development of specific qualities and personality structures, and on the other, in the achievement of results in a specific type of activity.

Subject of study

Training college students for their future profession is mainly based on theoretical education, at the same time, psychological components, in particular, personal determinants of reliability of learning activity, are not analyzed and are left without any attention. Psychological reliability in learning activities is not assessed as a significant criterion for the future profession. In modern psycho-

logical literature, we have not come across studies on the features of mental reliability, its development while training future professionals at the college. Despite the theoretical and practical significance of the problem, there is a lack of research on the reliability of college students in learning activities, although the formation and development of personal determinants occurs when they study at the college. In pedagogy, educational and developmental psychology, there are indications of the development of independence, initiative, activity, but the importance of the process of forming students' mental reliability in learning activities is not reflected.

Methodology and subject of research

Theoretical foundations of the research

First research of the mental reliability of a person was carried out in a number of scientific fields, psychology among them. However, this problem was especially interesting for those working in the field of engineering psychology and, a little later, sports psychology. The number of publications and research materials on the problem of mental reliability has increased significantly relatively recently. In the first decade of the XXI century, a lot of studies were carried out on the problem of reliability. However, it should be noted that there are two approaches to this problem in Russian psychology. Some researchers consider the concept of "mental reliability" (MR) from the point of view of procedural and effective parameters of activity, i.e. its manifestation in the process of activity. Others, however, focus on psychophysiological characteristics of an actor, i.e. consider reliability to be an integral characteristic of a person. The second approach clearly indicates the interdisciplinary nature of the problem, therefore, instead of MR, the term "reliability" is used, to highlight the problem is beyond the scope of psychology.

This concept is analyzed through procedural and effective parameters of activity in the papers by Savinkov, Afonkina, Osadchuk, Bodrov and Orlov, Lomov, Nikiforov and others but they do not arrive at a consensus. In their works some of these authors tend to analyze reliability as a characteristic of a person, while others use the concept of professional reliability.

According to Savinkov, the essence of personal reliability, as a professional quality, can be determined only in relation to other characteristics that determine the success of their work. At the same time, personal reliability is the most important component of professional qualities of a person working in extreme conditions. The author uses the term "personal reliability" rather than "mental reliability" regulation (Osadchuk, Maksimenko, 2016).

There are a lot of papers devoted to the study of professional reliability of a teacher (Afonkina, Osadchuk). These psychologists introduce the concept of "professional reliability". Afonkina considers it as a teacher's ability to act in

conditions of interference, while maintaining high quality of achievements, on the one hand; and integrity, harmony of their inner world, on the other hand. Osadchuk defines professional reliability of a teacher as an integrative personal quality that ensures the effectiveness of pedagogical activity, regardless of the circumstances that arise, through the mechanism of self-regulation (Osadchuk, Maksimenko, 2016).

The parameters of the mental reliability of the professional's personality are important. Most authors distinguish reliability, faultlessness, timeliness of actions, persistence and stability as its components, in relation to professional activity.

Bodrov, Orlov (1998) defines reliability of activity as a person's ability to maintain a given level of performance. Faultlessness is a measure of a person's sustainable performance over a given working cycle. Timeliness of action can be based on the assessment of the speed of achieving a certain goal. They consider the stability of activity as keeping the values of the output parameters of the working process during a given period at a level adequate to the requirements for the activation of professionally significant human functions. Persistence, in their opinion, reflects a person's ability to maintain the parameters of activity and functional activity at a level that ensures the specified indicators of the working process when exposed to extreme environmental factors and in emergency situations.

An expert in the field of engineering psychology Nikiforov (1996) considers the reliability of a person's professional activity as freedom from failures and errors; timeliness of actions aimed at achieving specific professional goals in the process of interacting with equipment or with other specialists.

Lomov (1991) offers to evaluate the reliability of an employee in terms of failure freedom and speed, i.e. the speed of performance of each of the work functions.

Shcheblanov and Bobrov, Nikiforov, Strizhov focus on the psychophysiological characteristics of an actor in their research. The signs of reliability, according to Shcheblanov, Bobrov, include psychophysiological cost of activity, which is understood as "the degree of change in the ratio between the current, initial and limiting states of the functional systems of the body, which are principal for this activity" (Shcheblanov, 1990).

Of greatest interest for our study are the views and papers of the authors focusing on the problem of personal characteristics of a person's professional reliability (Nikiforova, Strizhova, etc.). In their works these psychologists try to highlight personal determinants of mental reliability of a professional's personality.

Nikiforov indicates a significant impact of such personality traits as self-control, responsibility, honesty, moral duty on ensuring the reliability of professional activity.

Strizhov identifies such a psychological property of a person as moral reliability, in which life goals and ways of achieving them are realized, organized and structured in accordance with moral norms. From his point of view, moral reliability is described by ethical categories of honesty, loyalty to one's word.

Moral qualities of a person are developed in society; therefore, the idea of the reliability of a social group, along with a personal one, is also addressed in modern Russian psychological research and papers of Sarychev, Chernyshov, Solodkaya and etc.

Thus, we can state that the problem of reliability falls within the concern of many sciences, and "reliability" is an interdisciplinary and general scientific concept.

Materials and research methods

Conducted theoretical analysis of the literature allowed us to design a complex of psychodiagnostic procedures aimed at identifying and studying the personal determinants of the mental reliability of college students in the framework of learning activities. The complex includes the Sixteen personality factor questionnaire (16PF) by Cattell; questionnaire "Research of motivation and self-esteem" (MSE) by Zobkov; methodology "Determination of emotional sensitivity to stress factors" by Milman; methodology "Study of qualitative – modal emotional characteristics" by Rabinovich; questionnaire "Diagnostics of volitional qualities" by Chumakov; methodology "Relief of a person's mental state" by Prokhorov; questionnaire technique "Attitude towards oneself, activity and other people" by Zobkov; method of expert assessment (rating scales "Performance efficiency" by Filatova).

The study involved students of the College of Innovative Technologies and Entrepreneurship at Vladimir State University (the city of Vladimir). The total sample size is 110 students aged 17 to 20 years old.

Development (analysis of research results)

Results and their discussion.

The results of the analysis of scientific and practical literature allowed us to formulate the following definition of the concept of "mental reliability". We believe that mental reliability is an integral property of a personality that manifests in relation to oneself, business and other people, which determines procedural and impactful parameters of professional activity.

Thus, the mental reliability of a person is manifested as:

- mental state at a particular time;
- mental process (manifestation of individual specific regulatory mechanisms of adaptive behavior);

– mental characteristic of a person (a complex of mental components that determine the procedural and productive variables of learning and professional activities) (Filatov, 2020).

Mental reliability of a personality is set and develops at all stages of the professional development of a person and should be considered as a professionally important personality trait. The developed model “Determinants of the mental reliability of the individual” is capable of diagnosing the personality, their psychological readiness to perform professional activities.

Conclusions

In pedagogy, educational and developmental psychology, there are indications of the development of independence, initiative, activity, and the importance of the process of forming mental reliability of students in learning activities is not reflected. Knowledge of the personal determinants of the mental reliability of college students, the patterns of their formation and development at college can be used to make effective programs of psychological support for them at the stages of personality professionalization.

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