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The Structure of the Innovative Potential of the Actor of Educational Activity

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Abstract

The purpose of this study is to determine the structure of the innovative potential among students as active participants of educational process to improve the possibility of their development during their learning in high school.

This study is one of the steps towards forming an idea of the innovative potential of a generalized participant of higher education. The theoretical and methodological basis for the study of the innovative potential of the individual includes: the acmeological approach to constructing a model of innovative activity; the analysis of ideas about the person as an active participant of its life; the system-dynamic approach to the analysis of the individual. The method of theoretical analysis of literary sources is used as the leading method.

Based on the theoretical analysis of various approaches, the need to clarify the structure of the innovative potential of the actor of educational activity for the further development of technologies for its actualization and development is justified. The structure of the theoretical model of the innovative potential of the actor of educational activity is proposed. The following levels of this model are substantiated and meaningfully disclosed: typological, personal, motivational, and creative.

The materials presented in this study allow to evaluate the possibilities and ways of studying the innovative potential of the personality in its educational activity, and can be used for conducting an empirical study.

This study presents the features of the structure of innovative potential of students through the integration of acmeological and system-dynamic approaches to the analysis of their educational activity.

Keywords: personality, innovative potential, structure, educational space, educational activity.

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Introduction

In recent years, the interest to the innovative activities of the person has increased. This is due both to the increase in the amount of knowledge that requires new skills in obtaining and processing information, and to the fact that the active use of information technologies contributes to the emergence of new ideas that need further promotion and implementation. In addition, currently one of the main tasks of higher education is to prepare an intellectually developed specialist who is able and ready for self-realization. Due to the fact that the educational process is a joint activity of teachers and students, a lot of attention is paid to the innovative system of teaching in universities, adapted to new modern requirements and to the system of personality-developing education. At the same time, it is impossible to prepare a creative professional who is ready for changes without addressing the student's personality, without actualizing and developing his innovative potential.

In the framework of existing research, special attention is paid to the analysis of the determinants of innovation activity, which are conditionally divided into organizational and personal ones. Personal determinants are psychological characteristics of an individual that promote or hinder innovation activity. As such characteristics, psychologists often consider creativity as the ability to put forward new ideas and innovativeness -the ability to accept, refine and implement these ideas.

Purpose and objectives of the study

The purpose of this study is to determine the structure of the innovative potential of the person in its educational activity to assess the possibility of its development in the process of professional training.

Literature review

One of the directions in the field of creativity is the study of individuality, personal characteristics and motivation of the creative person. Research has shown that creative people have independent judgments, divergent thinking, a desire for novelty. The connection between creativity and self-actualization is noted (Maslow, 2008), and the importance of emotional intelligence is emphasized.

The problem of studying innovations has long been considered as a problem of abilities and motivation of innovative activity (Karnyshev, 2010; Yagolkovsky, 2011) on the one hand, on the other – as a problem of innovative behavior (Klochko, & Galazhinsky, 2000). Recently, the problem of revealing the innovative potential has become more urgent.

In the literature, there are three main approaches to determining the innovativeness of a person depending on the degree of acceptance of innovations (Gauvin, & Sinha, 1993): 1) innovativeness is the ability of the person to be the first in interaction with innovations; 2) innovativeness is a factor that increases the likelihood that the person will be an innovator; 3) innovativeness is a factor that accelerates the adoption of new technologies by the person.

According to some authors, innovation implies the ability of the person to draw ideas from outside the system and bring them inside it, as well as the ability to effectively represent these ideas (Grewal, Mehta, & Kardes, 2000). There are a number of personal factors that influence its main parameters, including (Robinson, Marshall, & Stamps, 2005; etc.):

- striving for novelty;
- sensitivity to contradictions, new experiences, and original, dissimilar stimuli;
- inclination to risk;
- creativity;
- readiness for information processing;
- independence of judgment;
- openness to experience;
- awareness, etc.

There are various concepts of innovative human behavior, innovativeness as a personal trait, and cognitive styles that are responsible for the propensity to innovate. At the same time, more attention is paid to behavioral orientation without considering innovative potential as determinants of behavior.

The study of the innovative potential of the personality in its educational activity involves the study of its characteristics in the relationship of cognitive, motivational and emotional components. Being a complex concept, the innovative potential of the personality reflects the dynamic property of the individual as an actor of innovative activity, and its characteristics as an object of the innovation system (Kamensky, 2015). At the same time, the person's potential includes both natural-conditioned abilities and volitional, intellectual and psychological characteristics that contribute to personal and professional development (Derkach, & Zazykin, 2003).

Methodology

The leading method of this study is theoretical analysis of literary sources.

The theoretical and methodological basis of this study are: the acmeological approach to constructing a model of innovative activity (Derkach, & Zazykin, 2003), the ideas about the person as an active creator of his life (Brushlinsky, 2003) and the system-dynamic approach to the analysis of the person's life (Rubinstein, 2003).

The private-methodological approaches to studying the innovative potential of the individual are: the concepts of personal potential and the idea about human innovation potential; the concepts of proactive behavior and intrapreneurship; the concept of professional innovative behavior, and the concepts of innovative readiness.

The innovative potential of the individual should be considered as a set of personal properties and qualities to create, perceive, implement innovations, as well as to abandon outdated inappropriate ways of activity in time. In the scientific literature in recent years, there has been a discussion about the relationship between the concepts of "creativity" and "innovation". Theoretical analysis of these concepts is important for studying the structure and diagnostics of the qualities and properties that make up the innovative potential of the individual. It is assumed that creativity is only a general condition for innovative activity. In fact, the innovation is a continuation of creativity, its "economized" version, its transformed form, a certain socially organized practice. (Mikhailova, 2012 a).

In general, the person's innovativeness is its ability to ensure the appearance, perception, and implementation of new and original ideas at the cognitive and, if necessary, behavioral level. Scientific analysis of innovativeness involves its research as a personal characteristic of the person, including the study of cognitive, motivational and emotional components. Features of formation, functioning, manifestation and development of personal innovation largely determine the style of behavioral

manifestations of the actor in the conditions of constantly changing economic, technological, information, socio-political, and other parameters of the modern world. So, Rogers (2010) within the framework of the theory of diffusion of innovations suggested typology the person's innovation activity depending on the degree of their involvement in the process of introducing and implementing new ideas, solutions and technologies (Yagolkovsky, 2011).

Through methodological analysis of the potential of the individual, it is established that the person's innovative potential can be defined as a set of properties and abilities expressed in integral types of activity of the individual and manifested in certain levels of activity in direct practical activity. At the same time, creativity expressed by intellectual activity, innovation expressed by business activity, and creativity expressed by value-motivational activity are the main properties and abilities of an individual's innovative potential (Mikhailova, 2012 b).

The potential of an individual is understood as a system of its renewable resources, which are manifested in activities aimed at obtaining socially significant results" (Markov, 2002). Innovation potential is also understood as a characteristic of individual psychological peculiarities of a person, which is the basis for the ability to successfully perform activities aimed at developing, implementing and disseminating new ideas, products, and technologies (Baturin, Kim, & Naumenko, 2010). The innovative potential of an individual consists of several components:

- constant updating of ideas, methods of work, subjective significance of originality, singularity of events, actions and implementation of social projects;
- social creativity, updating forms of community organization;
- general expansion into the future - the significance of past achievements is moderate, the past is not idealized (Terekhova, & Belan, 2016).

Some scientists consider that the concept of "innovative potential of the individual" is the complex characteristic: on the one hand, it reflects the dynamic property of the individual as an actor and initiator of practical innovative activity, and on the other hand – it reflects the peculiarities of perception and adaptation to innovations as an object of the innovation system. Thus, in the first case, the innovative potential of an individual can be characterized as its generalized ability to implement a transformative way of interacting with the world, and in the second case – as its ability to perceive innovations in a meaningful and differentiated way and adapt to innovations (Kamensky, 2015). Also, the person's potential includes "not only the congenital potential (nature-based abilities and hereditary factors), but the system of

continually renewable and multiply resources – intellectual, psychological, volitional, which contributes to progressive personal and professional development" (Derkach, & Zazykin, 2003).

Researchers of the problem of innovative behavior in science claim that the innovative potential of a person can be represented as a system consisting of three main blocks that are hierarchically connected to each other. It includes:

- personal qualities such as tolerance to uncertainty, ability to take justified risks, responsibility, need for self-realization, motivation to achieve, reflexivity, creativity (qualities of intelligence, intellectual initiative);
- competencies, primarily such as project competence, communication competence, and informational competence.
- vitality (features of the value-semantic organization of the lifeworld, vitality, sovereignty, ability to work, mobilization potential, level of self-regulation, orientation of a person to a certain quality of life) (Klochko, & Galazhinsky, 2000).

Results

In pedagogical psychology, it is customary to consider the teacher and the student as a combined actor of the entire educational process. It is advisable to specify the concept of the actor of educational activity and consider only the student as it. This is the first step towards forming an idea of the innovative potential of a combined actor of higher education.

A distinctive feature of training activities is that, unlike any other activity that aims to get some product in the absence of interest in the development of the employee, the main "product" of training is the development, change of its actor. The features of educational activities in the University include: the acceptance of student's learning goals as personal and their conscious focus on achieving these goals; the nature of training, which includes the development of a large amount of theoretical knowledge and the formation of skills due to future professional activities; intellectual and personal development of students. Therefore, the results of the activity should be evaluated not only by objective evaluation results, but also by the new formations that occur with students in the process of its implementation.

Considering the component composition of educational activities at the University, we can distinguish in each of them the signs of innovativeness, as well as those characteristics of students that contribute to the achievement of the learning result.

The subject of educational activity is the experience of students, which changes in the learning process by obtaining new professionally directed knowledge, forming the necessary skills for the future of the profession, and the actual process of professional training is its content. The effective assimilation of the new experience is based on such qualities as: the ability to adapt to new information, organization, discipline, self-control, and self-esteem. Considering the variety of means of educational activity that a student has (intellectual and symbolic means; knowledge; social experience), we can conclude that it is necessary to develop certain personal characteristics for their flexible use. At the same time, motivation is of great importance as a set of factors that determine the motivation to learn and solve educational tasks. The motivational sphere of students is characterized by dynamism, the ability to change throughout the years of study and requires special attention.

The educational task as a structural educational activity provides a transition from the learning goals to the specific goals of the student. At the same time, in the process of learning, it is necessary to solve both reproductive and productive tasks that require students to be creative and independent.

According to psychologists, the most important characteristic of the actor is its activity in relation to the object, the desire for development and self-development. The actor of the educational process is characterized by both general and specific characteristics that are inherent in an active participant in the educational process. From the point of view of scientific approach, the actor has the following characteristics: the category of the actor always corresponds with the category of the object, which in the case of educational activity is knowledge; one of the manifestations of subjectivity is the conscious regulation of activities; deliberately regulated activity is always subjective; subjectivity as an intrapsychic category is defined in the system of relations with other people as activity and partiality; subjectivity does not exist outside of interaction (interpersonal, social, activity). Thus, the definition of the actor of activity is based on the principle of knowledge activity, which determines the achievement of a significant result. In addition, the subjective characteristics of a person include such characteristics as: orientation, motivation, system of personal relationships, self-regulation, creativity, emotionality, which is important for studying the personal potential in general, including innovative potential.

Creativity occupies an important place in the structure of the innovative potential of the actor of educational activity. In psychology, much attention is paid to the disclosure of the essence of creativity, to clarify the mechanisms of creative activity and the nature of creative abilities. Creativity is an activity that results in the creation of new material and spiritual values. This activity assumes the presence of the actor's abilities, motives, knowledge and skills, thanks to which a product is created that is characterized by novelty, originality, and uniqueness. Creative abilities are individual characteristics of a person that determine the success of their creative activities of various kinds.

Creativity is the ability to generate unusual ideas, deviate from traditional patterns in thinking, and quickly resolve problematic situations. Educational activities differentiate the development of creative abilities. Students creative abilities are increasingly determined by the content of the solved mental, practical, professional-oriented tasks.

Considering creativity as a component of the innovative potential of the actor of educational activity allows us to conclude that the formation of innovative potential and its actualization are determined by both external and internal (psychological) conditions. Thus, it is necessary to organize the educational process in such a way that it becomes possible to solve various tasks by different approaches for generating and developing of creative abilities.

Summarizing the results of the theoretical analysis, we can identify as components of the innovative potential of the individual as an actor of activity its psychophysiological properties, motivation, abilities, self-esteem, self-regulation, creativity, self-actualization.

Discussions

The study of psychological literature allows us to conclude that the problem of studying of updating the innovative potential of the actor of educational activity is connected with the problem of highlighting its structure. At the same time, there are certain difficulties associated with the variety of approaches to determining the innovative potential and its structure, and the multiplicity of solutions to the problem of its research. The theoretical analysis of research on innovation potential (Yagolkovsky, 2011; Markov, 2002; Baturin, Kim, & Naumenko, 2010; etc.) shows the absence of a comprehensive approach to describing its structure.

Despite the debatable nature of the issue, the following main positions can be identified that combine different approaches to determining the innovativeness and innovative potential of the person in its activity.

First of all, the problem of innovative potential and its development is characterized by an interdisciplinary nature, and approaches to its solution can be traced in the research of representatives of various branches of knowledge. In general, there are several levels of analysis of the problem of innovation activity: macro-level (society as a whole); meso-level (individual organizations); micro-level (individual personality). All these levels are interconnected, but the central link is the person as an actor of innovation activity.

Secondly, in psychological works, the problem of innovative potential is mainly studied at the intersection with the theories of management and organizational behavior. The main area of research is

the organization and its employees - as objects (to a greater extent) and actors (to a lesser extent) of innovative activity. Also, innovative potential is characterized ambiguously, most often as a synonym for creativity, which is only a separate component of it. When considering the properties and mechanisms of innovative potential formation, the greatest importance is given to the development of existing inclinations and special abilities.

Thirdly, the cognitive, emotional, and behavioral aspects of an individual's innovative potential are traditionally distinguished. The ratio of these aspects affects the specifics of the actor's implementation of its innovative activity. The peculiarity of innovative potential is that it reflects the potential of the individual, which can only be realized under certain conditions. Actually, the actor's innovativeness is considered as its ability to ensure the appearance, perception, and possible refinement and implementation of new and original ideas at the cognitive and behavioral level. The innovative potential of a person is also defined as a set of properties and abilities expressed in integral types of personal activity and manifested in certain levels of activity in direct practical activity. Summarizing various approaches to describing the structure of the innovative potential of the individual, we can distinguish the following components: typologically determined, motivational, volitional, creativity.

Conclusion

Based on the theoretical analysis, the structure of the theoretical model of the innovative potential of the actor of educational activity is substantiated and determined. In contrast to existing approaches and taking into account the complex structure of the actor of educational activity, the innovation model includes the following levels: typologically determined, personal, motivational, and creative. Multi-level model allows you to organize research of innovation potential at each level, and empirically determine, evaluate and clarify the relationship of all its structural components. The typologically determined level includes the psychophysiological foundations of personal characteristics and determines their development. The personal level consists of abilities, self – esteem, emotional, volitional and other personal properties. The motivational level is the determining factor for the manifestation and development of the innovative potential of the actor of educational activity and an integrating factor in its structure. At the same time, it is closely related to the worldview features of the individual. The creative level is system-forming and it includes intellectual abilities and creativity. Thus, the need for empirical clarification of the structure of innovative potential of students is determined. The content of students' activity as the basis for further constructing and promoting of special technologies of developing of their innovative potential is defined. This students' activity is aimed at the awareness of the individual's motives, goals, abilities,

orientation and other features, as well as the possibility of their implementation in both educational and future professional activities.

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