

# Psychological resources of management of pedagogical education at the university in the context of global changes

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**Abstract.** The article covers the problem of searching for psychological reserves for finding managerial mechanisms to accelerate the transformation of the national university educational system. There is a decrease in the population's assessment of ongoing reforms, which is partially caused by the lack of teachers' activity to work out an adequate concept of development, the loss of the very meaning of university education, its substitution by different values, and, most importantly, the lag of universities in the transfer of modern knowledge. It is obvious that all developed educational technologies are aimed at accelerating of one of the slowest learning processes in education. One of the ways to reduce learning time is related to the digitalization of education, which theoretically tends to zero thanks to the introduction of microchips that connect the human mind with the computer. However, there are technologies of knowledge transfer that do not form professionals, who, in addition, must have certain competencies, experience and personal qualities. In the context of searching for effective ways to develop pedagogical education, attention is drawn to the study of the results of increasing its species diversity, as well as the integration of its main types - formal, non-formal and informal. Besides, it is important to change the position of the student outlining ways to prepare the educational elite, the main difference, the specificity of which is its universality. This can be achieved by creating a new geographically closed space, a new innovative environment, the beginnings of which began to manifest in the situation of the pandemic: an intellectual civilization aimed to provide conditions for the symbiosis of population, scientific knowledge and production. Further development of pedagogical knowledge in a high-tech society is impossible without integration with science. The growth of the scientific component, the active introduction of scientific methods forms the ability to foresee and predict the future, thereby turning pedagogical universities into an innovative information and educational environment.

## 1 Introduction

The transformation of the national university education system, which has been going on for a long time, does not find appropriate support either among its subjects or among the population, which is reflected in the permanent decrease of its grades. Moreover, there is a

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noticeable trend: the higher educational level of respondents determines their lower grades and more pessimistic reactions to changes occurring in the domestic education system [1]. It is interesting that public speeches and protests are heard less frequently, which does not mean that the majority of subjects admit the correctness of the reforms, but rather reflects the understanding of the futility of negative speeches, the uselessness of the state conducting the reform and the reaction of direct participants in the educational process.

Unfortunately, today the phenomenology of the pedagogical university, the very meaning of university education has been simply forgotten, that's why it is invested with different meanings every time. So, if for the local establishment universities play the role of an indicator of the authority achieved by the government and a significant organization of the public life of the region's community, then big business considers universities as one of the tools for managing personnel and information flows. As a result, the university loses its noble reputation in the field of higher education, and under the banner of "University" you can find all sorts of institutional and substantive forms. The mission of the university is not even indicated in the modernization program, which means that the state policy is aimed more at supporting education providing industrial sectors. Serious tests and transformations of pedagogical education in the structure of the university reduced it to a narrowly understood problem: solving the issues of personnel training for the market economy [2].

Members of the pedagogical community as the only representatives of professionals in the country, in fact, withdrew from the manifestation of initiatives without offering any significant organizational or meaningful constructive model for the development of Russian education, criticizing the reforms put forward and implemented by the Ministry of education. But even in this case, such approaches remain poorly integrated in society expressed by individual subjects mainly in interpersonal and group communications.

This has led domestic universities to lag behind foreign ones in many indicators, reflecting management shortcomings, weak educational standards and a low level of students activity [3]. Modern Russian students transferring their school ideas about education to higher education institutions demonstrate an unconscious choice of the field of study, which subsequently leads to apathy to the educational process, the formation of a passive consumer position, disregard for self-education and the selection of educational content, and such attitudes practically do not change during training to an active, enterprising, research, productive, that is, an initiative-independent life position [4]. The guarantor of long-term stability of this conception is the assertion that the fundamental purpose of education is the acquisition of knowledge, but not the formation of busy-active, innovative creators-professionals; the content of education is reduced to mastering of educational programs, and it is nothing said about the level of personality development as a generalized result of learning of education content by the student [2]. This situation shows that education stops to play the role of the main criterion for stratification of society, 69.2% of its members focus on "possession of money, material or other values"; 58.2% - on "possession of power or access to it"; 54.6% - on "connections with the right people" [5]. Available researches point to the lack of direct relationships between higher education and the assessment of social status by the personality, explaining the prevailing in the public perception of the disposition about the significance for the future person's ability to fit into a "warm place" in life, providing themselves with universal resources while the certificate of higher education, in reality, does not help in solving priority problems, without guaranteeing the subject either a successful job, or maintaining confidence in the future [6].

As a rule, this contributes to the development of a crisis of professional identity when the image of the object, process and idea are inconsistent, which is reproduced by all aspects of the specialist's life in society and can even get him down to a lower level of social life. There are enough reasons for this crisis, but among the main ones we can note the inability of the university not only to cope with the function of transferring knowledge that needs constant

updating, but also to produce new facts that are ahead of reality. The transformation of society and culture requires certain changes from the university, which must find its place and adapt to the new socio-economic conditions, guaranteeing its "convertibility", striving to maintain its loyalty to the university tradition. Many Russian universities have already experienced the difficult financial and social conditions imposed on them by society, but only a few have been able to hold on to the proper level, proving the need for themselves to the region, the country and even the world community. The integral unity of the university with the population of the region accelerates the awareness of the reality of existence by higher education representatives, ensures the quality of education, deepens its practical component, leading to the fact that universities begin to perform the function of innovative development of the region and the country as a whole.

## 2 Discussion

Global competition requires, first of all, the flexibility of the university in order while forming its image to learn to see and avoid all that is really outdated and acts as an obstacle for moving forward refusing from its old values if possible [7]. Management of the university, optimization of its structure and permanent updating of the content of its educational process must meet the requirements of science, mobility, innovation, flexibility, and be ready to respond adequately to the transformation of the social environment. However, unfortunately, modern universities are moving further away from the norms and standards of classical educational organizations, being more and more commercialized, becoming entrepreneurial universities [8].

It is quite obvious that both the state and the population, without clear and predetermined scenarios of future changes, continue to live in the present, at best, implementing plans for the nearest future. The current situation is interpreted by Z. Bauman as the transformation of complex societies in the direction of "fluidity", i.e. mobility, short-termism, maneuverability of all social relations. This phenomenon explains the desire of modern youth for optional, emotional connections that do not suppose responsibility, often preferring high-paying contract work rather than stability and social guarantees [9].

Leading trends in managing the development of modern pedagogical universities, conducting an audit of the organization of the educational process, introducing active and interactive forms of classes, introducing all the latest information technologies into the educational process, in fact, only deepen these trends. It is difficult to overestimate their role here, since universities themselves create the latest educational technologies, test them, saturate them with content and transfer them for use at earlier stages of education [10]. As an example, we can give not only practical or laboratory works in virtual reality, but also lectures held in leading university centers, when the entire group, led by a teacher-guide, visit various virtual industries, institutions, and organizations. Accordingly, the time spent on learning knowledge is reduced, while the practical orientation of the discipline grows. Far more interesting is the proposal already being implemented by Elon Musk about such a direction in the creation of artificial intelligence as the introduction of microchips that ensure the connection of the human mind with the computer.

It is obvious that all the implemented educational technologies are aimed primarily at accelerating the process, which is one of the slowest in education, and is realized throughout all the human life - the search and assimilation of various scientific information [11]. At present, it is probably possible to reduce more the time of entry into the profession, bringing it ideally closer to zero indicator in the nearest future, although this will require significant efforts of neuropsychologists and psychophysicologists to combine the cognitive activity of the subject with various electronic data storage devices. However, it is unlikely that you need to be a science fiction writer to foresee the results of chipping children with different types

of "chip knowledge", allowing them not to attend classes, facilitating the process of memorizing, creating the illusion of having experience, contributing to the formation of large and vivid ideas, and so on. Outwardly resembling a flu shot, such training increases the "fluidity" of students - carriers of "chip knowledge" and can further devalue their education.

The widespread emergence of the Internet and the formation of a new class - "netocracy" also leads to a decline in the prestige of professionalism in the psychological and pedagogical environment [12]. By providing a wide range of opportunities to discuss a certain issue with a community of different levels of training, or even to act as an expert on a particular issue, networks practically meet the needs of most people for professional advice. Even once, after accidentally performing an action and receiving thousands of "likes" from strangers, the subject begins to feel as an experienced professional - an expert who can suggest the right solution. This makes it possible to discuss, proving their point of view to a wide range of people, who in fact are not always relevant to the issue under discussion. As a result, a significant distrust to professionals is generated, and the leading principles of their work with clients are transformed, including: the duration of communication, absolute mutual trust, autonomy, acceptance by the client of the professional's intervention in his life, changing the manners, attitudes, transforming his worldview, typical habits, and behavioral reactions. It is interesting that no one cares that such "experts" are not responsible for anything, are not subject to punishment for their sometimes even harmful advices and recommendations. Moreover, by obtaining access to interact with the virtual knowledge personally, without intermediaries, the potential client begins to show intense hostility to effective professional groups.

Changing circumstances make new demands to the management of the professional community which is characterized by a certain constancy of improvement and by the rather difficult to predict level of knowledge required for the employee to be successful. Modern professionalism is much broader than any, even flexible, transforming special knowledge that follows the trajectory of changes in society. Knowledge is not the only feature of a professional who is also required to possess skills, competencies, professionally important qualities, and so on. The components of such a "set" of qualities are determined by modern dynamic requirements imposed by changing environmental conditions and living conditions, social and professional circumstances. Accelerated development, flexibility, mobility and sociability are indispensable prerequisites for successful entry and ensuring personal stability in a new changed world. The innovation environment requires from the subject changes that are directed and lead to the improvement of society. Adaptive capabilities of the personality are designed to provide a demonstration of several mastered social roles, the implementation of which can be only realized by the subjects possessing the required properties. E. Gellner said well about this, emphasizing that the modularity of a modern man is the ability to solve a wide variety of tasks within a given cultural field [13].

It is obvious that due to its inertia formal education does not allow us to fully meet the socio-economic requirements that are imposed on higher professional education. This puts forward as a priority the creation of such conditions for further education management, which will give each person the possibility to build a learning trajectory, form his professional competencies in accordance with the needs of modern society, on the one hand. On the other hand, they will have to correlate as much as possible with their cognitive needs, experience and potential, ensuring their further professional self-determination and self-realization. In frames of searching for effective ways to develop professional education, attention is drawn to the timeliness and relevance of studying the results of increasing its species diversity, as well as integrating its main types - formal, non-formal and informal. If the formal education is sufficiently studied, systemically structured and complies with approved regulations, standards and curricula, then non-formal education focuses only on the actual social order and is represented by all sorts of public courses, clubs, master classes, etc. The least studied

is informal education which is characterized by spontaneity, the ability of the subject maximally demonstrate his motivation, individuality, creativity and effectiveness in a rich cultural and educational environment for this person, which is usually a reference group. Being enclosed in ordinary, habitual forms of behavior, such as communication (including the Internet), reading, visiting cultural institutions, participating in public organizations, hobbies, etc., informal education, at first sight, acts as something unexpected, accidental, resulting from the life experience of the subject or the experience of a significant person, which can be acquired in any situation or activity [14]. At the same time, due to its high internal motivation, spontaneity, autonomy, self-confidence, perseverance, individuality, propensity to search, creativity, i.e. the properties that distinguish talented scientists, informal education turns into the educational potential of society and needs special study, classification, structuring and conscious usage.

Besides, except formal, scientific knowledge that can be easily digitized, there are implicit or "live" knowledge that is often identified with separate configurations of thought practices or actions. Implicit knowledge is exclusive and unevenly dispersed among people, acting as an essential element of the competitive advantage of companies. Y.M. Lvin, N.N. Pokrovskaya and P.D. Smirnov give the phenomenon of implicit knowledge the following general definition: it is a strategic intellectual capital that is not formalized in documents, not described verbally or visually [15]. Such definition allows us to better understand the value of leading employees who have information not only about the actual structure of the organization or channels of interaction, but also because of the crystallized experience accumulated in the course of long work - implicit knowledge about the management of the organization, or even the industry as a whole.

The concept of academic freedom somewhat contradicts the process of managing of knowledge transfer, especially in terms of limited work programs and curricula. There are many ways to overcome this educational contradiction, first of all by changing the student's position. For example, if a person is included in the educational process of a university as a passive object of training and education, it is unlikely that in future he will be able to solve the issues put forward by modern society to an educated person, starting from self-determination in the profession and ending with employment. By taking a subjective position the student not only masters an individual educational trajectory, but also engages other, less active fellow students in this movement through the development of collective projects or a system of industrial practices. Society feels the need to develop high-quality erudite, initiative, elite educational structures that are initially aimed at introducing the population to culture and scientific activities, determining the options for the future development of a particular country, identifying loyal leaders for certain stages and subsequently staffing them with elites in all spheres [16]. The main difference and specificity of the educational elite as a phenomenon of social life is its universality which has recently been expressed in the emergence and growth of an acute need for people with high cognitive universality [17].

Effective organizational activity in higher professional education requires special efforts to find, identify and formalize implicit knowledge. Here we should note another problem related to a certain tempo, rhythm and speed of learning, which indicates that in the case of implicit knowledge the time parameters are significantly different from those for mastering formal knowledge, which has immediate access in the information environment. The translation of informal knowledge formed involuntarily by different people in all their diversity, with the subsequent reproduction of the way of thinking and acting, forming the basis for understanding the processes taking place on the basis of these ideas, is carried out in a fixed, incompressible time. However, in this case, personal experience rather than knowledge is the ground on which personal and professional growth, self-improvement and self-realization are based. In this regard, the closest form of the educational process is a master class that concentrates the author's views in the technology of education through

professional communication, improvement of practical skills, and stimulation of the growth of students creative potential. The main task of the master class is not only to communicate and master information, but also to transmit productive ways of activity. The acquisition of both personal and professional competencies by the future professional is impossible without their correlation with the process of socialization. Only countries that have become leaders in the field of institutionalization of translation of different types of knowledge in the context of informatization can take leading positions among the elite of world powers.

However, not every employee is always able to understand the main directions of his development or his original skills due to the ambiguity of the performed functions, and no management decisions and clearly described rules will help to do this. In this case, you can use lifelogging technologies that allow to understand various aspects of our past, and are an important element of professional practice. Applying this technique, experts from the Massachusetts media laboratory succeeded in creating special biosensors to identify a variety of facts about people's daily lives with following mapping of their activity and visualization of behavioral reactions. In the nearest future, anyone can immediately create his own maps, for example, of happy or stressful situations using his personal data obtained using lifelogging technology [18].

Providing new opportunities for analyzing the subject's experience, lifelogging allows to assess the relationship between different types of activity of people with the level of their emotional expression, physical and mental health, and behavioral reactions in a variety of everyday circumstances. The most important thing is the technical support for quickly extracting the necessary information from a huge array of data. A special requirement for lifelogging tools is the ability to save top intentions in memory that constantly signal what the subject intended to do, since in modern conditions of accelerating the tempo of life people often have problems with remembering what should be done, rather than just storing information.

### **3 Conclusions**

The way out is seen in the transition to a new, higher level – the creation of a geographically closed space, a new innovative environment, the beginnings of which were manifested in the conditions of the pandemic: an intellectual civilization designed to provide conditions for the symbiosis of population, scientific knowledge and production. Modern higher education is unthinkable without a research base, and accordingly further development of the university in a high-tech society is impossible without integration with science. The growth of the scientific component, the active introduction of scientific methods forms the ability to foresee and predict the future, thereby turning the university into an innovative information and educational environment. It is the level of advanced foresight of science development that should form the basis of the university's rating

As prototypes, we can consider science cities, technopolises, technology parks, business incubators, etc., educational structures of the world's leading universities and global industrial holdings that can carry out a "point-based", personality-oriented impact determining the further development of professional competencies by specialists, defined and agreed with employers and necessary for the innovative and cultural activities of customer organizations. This intellectual civilization is the most advanced, as it is defined by creativity and is based on intelligent software. It is able to find tools for neutralization of the negative values of the Internet, which are based on irresponsibility and anonymity involving future professionals in project activity and forming the scientific elite.

Solving the main task of the university community and providing advanced development of professional competencies the intellectual environment will allow to form a leading fundamental knowledge backbone. However, the cognitive goal cannot be the only one in a

humanitarian educational organization, which requires solving problems aimed at developing of all aspects of the personality: from physical activity to purposeful self-education. As a result, there may be a contradiction between the cognitive and personal goals of professional education. The success of professional training requires accelerated transfer of formal knowledge, but special attention should be paid to non-formal and informal education which requires a review of the methods and technologies used in training. To overcome possible dissonance, it is necessary to create adequate conditions that allow the educational system to surpass departmental barriers by integrating various specialized formal, non-formal and informal knowledge. Thanks to this, it will be able to enter a global educational space that is open and corresponds to the current long-term goals of all world powers and separate personalities.

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