

# Scientific and Educational Centers as Factor of Activation of Human Capital in the Regions of Russia: Sociological Monitoring of Activity (Conceptualization of the Plan)

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**Abstract.** Human capital in a post-industrial society is becoming the main condition for the development of society and this is facilitated by the creation in Russia of scientific and educational centers (SECs). The main objectives of the activities of such centers are to enhance the economic and social life in the regions. Large funds are allocated to solve this problem. Therefore, the practical relevance of the sociological monitoring of SECs should be considered as a necessary condition for providing feedback on the effectiveness of SECs in the region. This is not only an important practical task, but also an urgent task of scientific support for the implementation of such monitoring. The article conceptualizes the main elements of the sociological monitoring system of SECs. They relate to the methodology and methodology of the sociological monitoring of SECs. Shown: the relevance of monitoring, its main goals and objectives, the principles of organization of work are indicated. It is important that monitoring is carried out systematically, taking into account information that reveals a combination of objective and subjective indicators characterizing the state of the region's human potential. The importance of organizing sociological monitoring of the SEC at a value level and using network research technologies is emphasized. The article provides a review of scientific sources that have been devoted to studies of human capital and the history of the problem. An analysis of the historical and modern experience of Russia shows that the unification of science, education and production is the basis of the conceptual model of stimulating the human capital of Russians and ensuring Russia's competitiveness in the world. It is concluded that the concept of sociological monitoring of the SEC as a factor in the activation of human capital is promising.

## 1. Introduction

The human capital of Russians is rightly regarded as the basic condition of the current stage of the country's development, but this capital is assessed as inert. Therefore, the strategy of searching and supporting talented people is rightly considered as the general direction that ensures the rise and development of the economic and social life of Russia. The stake is on talented youth. To solve the tasks of activating human capital, it is important to formulate adequate strategies for the search and

identification of talented youth, strategies that ensure the development of their intellectual potential, and rapid inclusion in the field of scientific and technological innovation.

In particular, scientific and educational centers (hereinafter referred to as SEC) are created with great potential for increasing human capital. In this regard, sociological monitoring and analysis of the potentials of talented youth, the study of socioeconomic conditions important for building a successful career for young people in science and technology development, the effectiveness of their participation in the formation of new science and production management systems, in the creation of topical models of international scientific and technical cooperation is a prerequisite for the development of human capital. The significance of sociological monitoring is determined by the goals of the SEC - training specialists who are able to develop and implement programs for revealing the talents of each person, improve the standard of living of citizens, create comfortable conditions for self-realization, which ultimately helps to increase Russia's competitiveness in the world due to human potential and provides scientific and technological and socioeconomic development of the country. Sociological monitoring of the SEC activities in this process provides feedback, which increases the success of the declared project.

## **2. Importance, scientific significance of the issue**

The importance of the scientific problems of the sociological monitoring of SECs is due to the need for an objective study and analysis of the conditions that ensure the maximum use of human capital in the development of Russian regions. Our country has practically unlimited natural and territorial potentials, potentials for economic and social growth, but these resources remain largely unrealized because of the disconnection of the human capital of Russians from economic and social capital. In the present, the study of the causes and specific conditions of each region for which a sufficiently high level of intellectual potential of Russians is poorly transformed into economic growth, social well-being and development of the whole society, as well as the search for models to bridge this gap, which is one of the areas of sociological monitoring. An analysis of the historical and modern experience of Russia shows that the unification of science, education and production is the basis of the conceptual model of stimulating the human capital of Russians and ensuring Russia's competitiveness in the world.

## **3. Problem statement**

A study of the methodological principles of building a system of sociological monitoring of the SEC as a factor in the development of human capital in the regions of Russia; substantiation of an adequate methodological system for such monitoring, providing objective information on the productivity and effectiveness of SEC.

The novelty of the scientific idea lies in the formulation of the concept of sociological monitoring of the SEC as a factor in the development of human capital, the study of its impact on the economic growth of the region and the social well-being of residents.

The main objectives of the study are:

- the study of historical patterns, potentialities and modern conditions for the creation of SEC in the Russian regions;
- implementation of a comparative analysis of the Western (European) and Eastern (Chinese) experience in the formation of SECs;
- identification of the features of the creation of SEC in the regions of Russia in territorial, sectoral and historical contexts;
- analysis of the specifics of SEC activities in the regions of Russia;
- forecasting the development of human capital in Russia for the medium and long term, the capabilities of SEC in the format of human capital development in the regions of the country;
- determination of scientific, organizational and pedagogical factors contributing to the implementation of the creation of a world-class SEC in the formation of human capital in Russia.

The methodological novelty lies in focusing the specifics of the study of human capital in Russia as a result of the integration of social, economic and other Russian conditions, on the one hand, and the focused activities of society and the state to stimulate the growth of human capital in the form of the creation of SECs, on the other. At the same time, it is important to emphasize that in the history of Russia there was only an active growth of human capital when the corresponding scientific and educational conglomerations were formed, which became locomotives of personal development and concentrated the advanced world experience in the formation of human capital of both an individual person and social and professional groups. In this regard, the opening of a network of world-class scientific and educational centers is considered as a timely and relevant measure for the development of human capital in Russia, corresponding to the real state of Russian society and its interaction with the world. The creation of a world-class SEC is to be seen as the creation of centers for the search and support of talented and gifted Russians, their formation as competitive and active people, which becomes one of the important guarantors of the development of all human capital in Russia.

In methodological terms, sociological monitoring can be based on a set of methods that reveal such indicators as the level of education, the costs of educational activities, indicators of the organizational structure, social communications, inclusion in social networks, as well as methods aimed at studying the inner world of students: their values, self-esteem, interests, needs, expectations. One of the research areas is the study and modeling of students' life paths, the environment of their formation, the characteristics of family and school education. Based on the work done, social matrices can be formed that reveal a set of conditions conducive to the realization of talents and gifts.

#### 4. Theoretical part

Attempts to create conceptual systems of knowledge, abilities, skills as a kind of human capital have been observed since the second half of the twentieth century during the transition from industrial to post-industrial society, associated with the increasing importance of the "knowledge economy". These ideas were developed in the works of E. Toffler on investments in a person, his level of qualification as the most important driver of the production process [1, 2, 3, 4, 5]. The concept of economic capital P. Bourdieu defined the classification of various forms of capital and their mutual conversion, the central place in which he devoted economic activity: "the economic field seeks to impose its structure on other fields" [6, 7, 8]. This approach to understanding the economic basis of human capital was used by classics - S. Kuznets, J. Schumpeter, V. Pareto, T. Schulz, G. Becker, E. Denison, R. Solow, J. Kendrick, S. Fabrikant, I. Fisher, R. Lucas) and modern researchers - V.V. Radaev, N.E. Tikhonova, R.M. Nureyev, V.D. Fetisov, R.I. Kapelyushnikov, S. A. Dyatlov [9, 10, 11, 12, 13, 14, 15].

In the concepts of the founders of the concept of "human capital" T. Schulz and G. Becker and in the thoughts of his followers J. Coleman, D. North, R. Putnam, not only systems of competencies and skills, but also the study of the social component were recognized as a necessary condition for the analysis of human capital, namely, the value world and motivation [16, 17, 18, 19].

One of the methods for analyzing the potential of human capital is the methodology for calculating the Human Development Index (Mahbub ul Haq), presented in the concept of human development (UN Development Program). This approach is also relevant for the research of SECs, since it allows us to study the potential of the innovation sphere and makes it possible to rethink understanding of human capital not as an economic product, but as a social phenomenon that demonstrates the accumulation by the Russian population of a number of indicators (level of health, education, professional skills and competencies, quality life).

Among modern studies, it is important to refer to the data of the international monitoring study of the human capital index carried out in the framework of the World Bank's analysis of the human capital potential of the world countries [20]. In 2019, the focus of this international monitoring project is focused on the analysis of the phenomenon of social inequality in various fields, which strategically affects people's lives, the formation of their life strategies, and thus the quality of human capital in the world as a whole [21]. Researchers at the Institute of Applied Economic Research, RANEPa published the results of their research project "Inequality and Economic Growth: Empirical Estimates

of the Role of Human Capital in Russia”, in which they identified factors affecting the level of human capital - the level of per capita GDP, immigration, immigration policy, income inequality, and indicators of the education system [22].

Practical importance, suggestions and implementation results, experimental research results.

The idea of sociological monitoring is expressed in explaining the content of integration of the human capital of Russians with economic and social capital, which, in our opinion, is impossible without the creation of scientific associations formed from leading scientific and educational organizations in cooperation with modern enterprises of real sectors of the economy. According to the Decree of the President “On National Goals and Strategic Tasks of the Development of the Russian Federation for the Period until 2024”, world-class SECs will be formed in Russia in the coming years, in which the integration of the potentials of universities and scientific organizations, their cooperation with organizations of the real sector of the economy is supposed.

## 5. Conclusion

Modern approaches to the sociological monitoring of human capital are based on the fundamental principles of science and are largely focused on the analysis of social networks (Social Network Analysis) using the Gephi, NodeXL programs in the interests of analysis and demonstration of success, as well as the difficulty of forming human capital. Along with this, monitoring involves the development of copyright research tools to identify the characteristics of the human capital of the regions. Network sociological diagnostics of values is promising in this regard, which allows us to analyze the content of the human capital of employees of Russian scientific organizations of the regions of the Russian Federation and students of various universities. This technique has been tested in a number of studies of the human capital structure of employees of Russian organizations and is aimed at the practical implementation of a comparative analysis of the values of respondents from different regions and fields of activity [23, 24]. To use this technique, special software has been developed.

Based on the results of summarizing the results of sociological monitoring of the SEC, information complexes can be formed that reflect and visualize “big data” on human capital and the role of world-class scientific and educational centers in the formation of Russian human capital in various regions of the country.

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