

**DEVELOPMENT OF HUMAN CAPITAL OF EDUCATIONAL  
INSTITUTIONS IN THE CONTEXT  
OF THE COMPETENCE APPROACH**

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**Abstract.** Starting from the 90s of the 20th century, all major educational institutions are in search of a new conceptual apparatus of development management. Historically, the first attempts were to adapt the potential of program-targeted management and methodological issues (in the sense of the Moscow Methodological Circle, G. P. Schedrovitsky) to developmental processes. Despite the fact that most educational institutions acquired concepts and development programs, their influence on everyday practice remained extremely insignificant.

In the 2000s, emphasis was placed on the concept of modernizing education, operating with ideas of quality and efficiency, which ultimately led to the formalism of licensing and accreditation procedures and further stratification of educational institutions in their development opportunities.

The current stage of development is characterized by a heightened interest in various “flexible methodologies” of development, such as Agile, Scrum, Kanban, attempts to build holistic ecological systems of innovations, and active internationalization of educational activities. All these areas represent a fairly diverse and differentiated package of activities requiring some kind of conceptual unity and justification. In this context the concept of “human capital” appears to be a meaningful generalization of many ideas of social, cultural capital, human development indexes, etc.

From this point of view, the main function of the education system is to increase human capital, and the means are the regular redesign of educational institutions in order to achieve their maximum performance. A special circumstance of the implementation of the concept of human capital growth in relation to educational institutions is the fact that over the past two decades the competence approach has become the basis of the state system of educational standards. Both advantages and disadvantages of the competence-based approach are related to this: it seems to be a more flexible tool for determining the requirements for the result of education. On the other hand, in the absence of a systemic model of competencies and processes of their formation, competence interpretation is given through sets

of individual knowledge and skills, which, in fact, eliminates the differences between competence and knowledge approaches.

Thus, it gives rise to any new methodology, which is based at the ideas of P. Bourdier such as “social field”, “discourses”, “practices” and “capital”. In our study, educational situation can be modeled by a three-level construct, the upper level of which is defined by competences and their interpretations, the middle level by social and humanitarian practices, and the lower level by the current distribution of human capital.

So, this allows us to develop analyzing and modernizing educational institutions procedures, among them:

1. Clustering competences and modularizing content. Competences can be integrated around the socio-humanitarian and educational practices within which they are created, as well as by the types of capital to which they correspond. As a result, educational modules emerge that include not only sets of related competencies, but also a description of practices, resources, and the nature of the development of human capital in them.

2. Diagnosis of performance quality and breaks. From the point of view of the three-aspect concept of educational institutions, the main problems are caused by gaps between symbolic, practical and resource bases. Thus, a double projection arises: competences to practice, and practices to capitals, where any violations of connectivity and correspondences predetermine the appearance of problems.

3. Dual representation of the resource policy. An increase in a resource, as well as any development of human capital in educational institutions, must be represented twice: as changes in the system of status and competences and as changes in the system of practices. Only under these conditions, human development will be sustainable, and investments in this process will be effective.

**Keywords:** human capital, cultural capital, social capital, educational standard, competence-based education

### **Introduction**

The problem of the development of education requires finding a certain conceptual and categorical framework that allows for a single way to carry out qualitative and quantitative modeling of the situation, as well as to describe and design changes. At the same time, it is fundamentally important that this concept should allow for a dual interpretation - both in the internal categories of the educational system, as well as external categories that would allow integrating the development processes of educational institutions into more general social and cultural transformations.

The search for such a conceptual frame is one of the lines of development of the education system at the end of the 20<sup>th</sup> and the beginning of the 21<sup>st</sup> century. In the 1990s, we preferred the program-target approach, which is closely connected with the system-thought-based concept and schematization in the spirit of GP Schedrovitsky (Zinchenko A.P., 2004). This was about criticism of existing education practices as dogmatic, inert, due to the transfer of outdated knowledge - and hence the transition to developing and personality-oriented models that allow each student to form their own educational trajectory.

In the 2000s, the ideas about the modernization of education as a socially and economically effective process were gradually replacing the ideas of “professional and personal development”. As a result, there was a transition to “per-capita financing”, competitive distribution of grants and subsidies, and public-private partnership in innovation. At the same time, a competence-based approach to the definition of the goals of professional education was accepted as a universal norm. This allowed the State authorities to get away the specific scientific content from the standards and perform state requirements for education (so-called, Federal State Educational Standards) as a normative ability for various activities and readiness to participate in various cultural and professional practices.

Restructuring the system of requirements for the results of professional education is significant, but by no means the only purpose of introducing a competency-based approach. No less significant are:

1. Improving the quality and relevance of professional education both for students and employers;
2. Active involvement of employers and their associations in the process of formation and development of the normative base of education, as well as targeted financing;
3. Building an effective system of qualitative and quantitative examination of the effectiveness of education.

However, here we face a number of substantive problems: competences, even when expressed in the language of “readiness” or “abilities” for certain types of activities, remain educational norms and cannot be directly correlated with any social or economic parameter. In addition, in the current system of state standardization, the update cycles of educational standards / competencies are in no way related to production cycles, but are determined only by the formal calendar dates for attestation or accreditation procedures.

Thus, neither for state education authorities, nor for employers, nor for the pedagogical community, competences play a significant role as tools for integrating educational systems into a wide context of current changes. So

we need an additional conceptual framework that ensures the integration of internal needs and development logic in educational standards.

In this role, it is most natural to propose the concept of “human capital”. According to the International Encyclopedia «social capital has gained popularity in recent years with diverse researchers, academics, as well as governments etc., ... and include trust, norms, and networks of association representing any group that gathers consistently for a common purpose». In the same time, «cultural capital refers to the role that distinctive kinds of cultural tastes, knowledge, and abilities play in relation to the processes of class formations in societies». Besides these, an important part of the human capital may be represented by the intellectual capital, which may be conceptualized as “human, internal and external capital which is supposed to be enhanced by knowledge sharing among teachers” (Social and Cultural Capital, 2010). The study mentioned here may also prove that an increase in intellectual capital is a good predictor of all other aspects of capital richness (an internal, external and also human), and the most effective strategies for cultivating human and intellectual capital should focus on facilitating knowledge transfer.

The importance and relevance of this concept, when applying to the teacher education is also confirmed by the fact, that the life-long teacher education may not only support the professional capital acquisition (Nolan A., 2017) but also be treated as one of the main factors increasing the human capital of a society as a whole (Aleandri G., 2014).

Meanwhile, it is obvious that the combination of these two approaches opens up a significant field of both fundamental and applied research.

### **Objectives of the study**

In our study, we focus on three interrelated and complementary goals.

First, it is necessary to explicate and clarify the concept of human capital, in relation to the peculiarities of the system of professional training of teachers. This will require clarifying the relationship with the well-known concepts of “cultural capital” and “social capital” (P. Bourdieu), “intellectual capital”, etc.

In recent years, the understanding of innovative educational systems as a kind of ecological systems has become very popular, and therefore the term “innovation ecosystem” has spread. Until now, this concept is used in a purely metaphorical sense, but circumstances force us to consider the transformations taking place in the educational system from the point of view of ecological capital (Wang H.Y.Y., 2019). An active use of this concept may be important in three main aspects: 1) as a new general framework for new categories, rising up within a context of a “ecosystem

approach”; 2) as a tool to consider transfer/transport of ecological capital, and (3) improve capabilities for decision-making.

The most traditional view of human capital as a universal characteristic, including all aspects of human existence, however, we need specialization of the concept in the system and professional relations. Moreover, it is the dynamics of human capital that will ultimately identify the effectiveness of the educational system, as such.

Secondly, it is necessary to determine how the categorical and methodological apparatus of the competence approach will change in the context of the development of human capital. The question of the relationship between the wording of competencies, the resources required for this and the capitalization process deserves special attention.

Finally, thirdly, it seems to us fundamentally important to make adjustments to the basic processes of developing and implementing educational standards, creating and implementing new educational programs, as well as diagnostics systems in the logic of human capital development.

#### **Methodology of the study**

The research methodology consists of three systemic approaches (the competence, ecosystem, and “human capital” approach), each of which allows you to answer your own set of questions. ’

The competence-based approach plays a fundamental role in modern educational research (Koenen A.-K. et al., 2015). In its framework the basic requirements and procedures for assessing the quality of education are determined. First of all, a new type of competence-based education (CBE) is defined, which is the subject of interest of three different groups of stakeholders, namely curriculum coordinator, teachers and students. The most significant revitalizing factors (the revival of Competence-Based Education (CBE)) are: shift to a knowledge-based society, constructivist view of learning, facilitating attitude of teachers activity, an enormous growth of information and a request for any person to take responsibilities, learn to learn, and make critical analyses. It’s also important that CBE connects well with today's relevant topics such as ‘employability’ and ‘lifelong learning’. The resultant definition is: *‘A competence is a personal capability that becomes visible through showing successful behaviour in a specific contextual situation. A competence is dynamic over time and developable to some extent. A competence consists of an integrated set of knowledge, skills and attitudes, where also personal characteristics and aspects of the professional functioning influence the development of competences in some way.’* (Dochy & Nickmans). A very special point in the CBE is a focus on assessment procedures (Herppich S. et al., 2018) which should include all the cognitive dispositions in correspondence with

all the practices, products, descriptions, explanations, predictions in various situations.

The next point in methodology is the “human capital approach”, which allows to clear out mostly general and long term trends in social changes (Lee J.-W., 2016). It means the average educational attainment and human capital stock have shown strong growth in 19<sup>th</sup> and 20<sup>th</sup> centuries, and the gender equality in education has improved across regions in the 20th century. Besides these general quotients of enrollment ratios, educational attainment, and human capital, this approach gives us some very important concepts such as:

- capital flow – an intensity of changes of capital values per time unit,
- capital observations and measurements – quantitative and qualitative aspects of differences among different systems, which may be attributed to differences in human resources and abilities towards activity and communication;
- capital conversion – a set of situations, in which definite kinds of capital may transform into each other (for example, social capital of close communication with stakeholders may convert into a real symbolic status or something else);
- capital regulations – subjects, norms and tools, which may affect and change capital measurements at any directions.

The last approach which may be of interest at our study is the ecosystem one. First it was applied just to natural biological systems or at least to ecology education (Feszterova M., 2015). This approach focuses on complex relationships between natural and cultural factors, population and environment, and requires very careful and continuous studies of changing conditions in the field.

But, now it tends to be more formal conceptual framework, which enables to analyze and predict changes of parts in complex interactive systems like Entrepreneurship or Education (Entezari Ya., 2015). The main result of this analysis may be a set of actors (such as academic entrepreneurs, entrepreneurial universities, science and technology parks, knowledge-based industrial parks, financial institutions and government) and factors like: entrepreneurship opportunity, entrepreneurial capacity, technological learning, entrepreneurial culture, innovation capital, human capital, social capital, knowledge production, and infrastructure and info structure and university-company interactions, which are giving rise to innovative productivity.

Last years it is getting more and more popular to fix any kind of moral and existential (including the so-called “sustainable development” or “Education for Sustainable Development”, ESD) of ecosystem approach. It leads to a

new anthropology, dealing with a new subject with different consciousness and behaviour (Nasibulina A., 2015). By this way, any kind of education may transform into ecological one (Pankina M. and Zakharova S., 2015).

### **Findings**

The main problem of conjunction of the competence and human capital approaches is an inner incoherence of different requirement systems of educational and professional standards. This problem is well-known in the global world (Marom L., 2019), where Internationally Educated Teachers (IETs), having more experience than those, who get only national certificates, do need recertification. Up to the Russian conditions, it should be mentioned, that early stated system of teachers' categories now is developing towards new 3-level system of "teachers", "senior teachers" and "leaders", and both of them contradict with the substantially different system of educational standards of Bachelors and Masters of education. No of them is supported by clear system of capital distribution, and thus, is condemned to rapid and unpredictable changes according to political declarations.

Another important problem is an inconsistent relations between different forms of human capital, which are, according to P.Bourdieu, objectified, institutional and embodied states. The objectified state includes all the subjects, which may represent the culture situation, the institutional are set of mechanisms and strategies for practice, which are available within the formal context, and the embodied state represents all the mastered competences. So, both educational and professional standards aim to regulate embodied form of human capital, but have no ideas how to manage institutional and objectified resources. Thus, a very productive metaphor of the "educational process" is subtracted to less clear and unstable concept of "educational situations" so we may not use fundamental concept of "capital flow".

Finally, one of the main result of study is a concept for anthropological transformation through educational institutions (Ourahmoune N., 2016). Instead of any kind of determinism (both standard-based or existentially-oriented), it may give us more rational and predictive conception of three main directions of transformations, including: the change in narration, in temporal (and also behavioral) structures and strategies, and in self-identity. The last one may be interpreted through the Bourdieu's understanding of reflexivity as a transpersonal and transversal meta-positioning in varying social and cultural contexts.

### **Discussion and final remarks**

So, we do need any kind of new methodology of institutional studies of standards using a manifold of approaches, including the P. Bourdieu's ideas

of “social field”, “discourses”, “practices” and “capital”, as well as an idea of psychoanalysis about a three-part personality/capital model. In our study, educational situation can be modeled by a three-level construct, the upper level of which is defined by competences and their interpretations, the middle level by social and humanitarian practices, and the lower level by the current distribution of human capital.

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