

# Modern philosophy of education

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**Abstract.** The authors suggest the concept of philosophy of education, which implies that education is focused on building the concept of a creative professional. The paper actualizes problems of methodology of scientific knowledge, ontological and gnoseological thinking alongside with their role in education. It is claimed that understanding of gnoseological thinking that captures the cognitive process as a whole, including methods, resources, procedures, approaches and ability to apply this method within the scope of science in any educational process, is a necessary condition in developing a creatively thinking professional. Thus, in order to implement this objective the paper covers the use of interdisciplinary and above-disciplinary approaches in education.

## Introduction

### Philosophy of education.

Does the modern system of Russian education promote philosophy and does philosophy exist within its frameworks? It certainly does. However, it is not that philosophy that is only perceived as “love of wisdom”. It is the philosophy that promotes the generalized ideology of education and identifies the place of an individual within it. Philosophy is something that affects everyone; it is not the privilege of an individual. [1] Here, we talk about philosophy aimed at improving such processes as personal development, education, and socialization of an individual in modern reality. The philosophy is perceived as a science integrating educational and behavioral functions of professional, political, ethical, esthetic and legal types of personal development and fulfillment, as a branch of philosophy that considers the problems of education. The present paper makes an attempt to define problems within a philosophical approach aimed to study the essence of contradictions, changes, reforms, etc. of the educational community not only in Russia but throughout the whole world.

## Materials and methods

*The role of philosophy in the development of an individual.* In ancient history, in civilizations of Egypt, Greece, Rome, China, and India people worshiped those who were able to think. They admired those who tried to understand the meaning of life, argued on the good and the evil, spoke and wrote about justice. The ancients called such knowledge a wisdom, and love of wisdom was called the philosophy. Confucius, an ancient

Chinese philosopher, wrote that when you see a good person think of becoming like her/him. When you see someone not so good, reflect on your own weak points. [2]

Philosophy begins where an individual is trying to understand the genuine reasons of what happens to and around him. The main thing is not only to argue who to be but what to be? And, what is more important - what personality to become? To look back, to consider, to plan your life are the first steps towards the philosophy. Politicians practice the philosophy of politics, businesspersons foster business philosophy, etc. In short, everyone has its own philosophy even if s/he is not aware of that. A talent cannot live according to other people thoughts. Who will help students to understand what their mission is, how to master science and the art of thinking, and to be able to think: “Thinking is the hardest work, which is probably the reason why so few engage in it” [3].

*The mechanistic approach of modern philosophy of education.* In philosophy the problems of a school and a university were perceived as problems of education in its wider sense, and early at the dawn of human society people started talking about self-education. An individual was focused on the needs to think of the meaning of life. These thoughts prevailed in Ancient Greek Philosophy, Renaissance Philosophy, Modern Philosophy, and were also reflected in works of G.W.F. Hegel, K. Marx, and M. Weber not only from the point of view of philosophical theory but also as philosophical worldview. In reality, not too many search for meanings. The majority goes along with stereotypes.

These days many students think of their education as of an arithmetic task, where, as we know, there are only four actions. Or, similar to the Unified State

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Examination, where it is possible to make a good guess or if lucky, to train yourself on the solution of standard tasks and to pass an exam anyway. The modern system of school education in Russia is mainly focused on students getting a successful result rather than on the quality of education. Then, a similar approach is implemented at higher educational institutions, where students are only concerned with getting a degree but not with acquiring knowledge.

Modern philosophy of Russian education is a **mechanical mixture** of diverse views, theories and principles. It is the mechanistic approach. Such combinations are called eclecticism. This is the philosophy of a modern identity and this approach is often demonstrated by modern Russian management that controls educational and development processes. There are plenty of technologies but the methodology of educational and development process is eclectic. What results of students' development are possible to argue about using such approach or rather such method? Development of an individual shall always have some meaning, an inspiring idea, an idea proved by theory, confirmed by practice, related to a dream, and supported by a method. And moreover, by a proven method! It should be the method of scientific knowledge. Where and when did education lose its method, its dialectic method and methodological culture?

*Main milestones of the Russian higher school reforms.* It is fair to say that the first attempts of reforming the system of the Soviet education date back to the 70s-80s of the last century. Suffice it to recall scientific and philosophical school of P.V. Kopnin that was developed in Tomsk, Kiev, and Moscow. Works of Kopnin [4, 5] and his students introduced new concepts in addressing the issues of methodology of scientific knowledge, discussed new approaches to education, as well as its "problematical character and method". At that time the reform of higher education was defined as a problem. Similar attempts were also made in Western countries. We shall remember it in order to emphasize the global nature of higher education reforms [6]. We even wrote in one of our books that "the reforms of higher education became some kind of a sign of the end of the 20<sup>th</sup> - beginning of the 21<sup>st</sup> century" [7].

Chronologically, the reforms were initiated by the Decree No. 1 of the President B.N. Yeltsin *On High Priority Measures for the Development of Education in the Russian Soviet Federated Socialistic Republic (RSFSR)* [8] with reference to exceptional importance of education focused on the development of intellectual, cultural and economic potential of Russia and emphasizing the priority of its education. These were the reasons and grounds of this document.

1993 is marked as another milestone. New educational standards were issued. The standards became obligatory in 1997. Higher educational institutions began to adjust in order to meet the requirements of these standards. What are the conceptual elements of the reform? It is a two-tier system. A specialist degree program was replaced by a bachelor's and a master's degree. A new type of examination for the candidate's degree was introduced. TPU was

awarded the status of National Research University. Then and now attitudes to reforms were formed differently. Relying on our own experience of high school teachers and researchers, it is possible to characterize such opinions in the following way: some people believe that those who initiate reforms simply copy the American system of higher professional education, others idealize the Bologna Declaration even though in Europe not everyone supports it, and especially does not consider it an ideal one. There are also those who think that reforms are caused by political reasons and are aimed to destroy and reject the system of the Soviet education in favor of the Western system of the so-called democratic ideology.

S. P. Tymoshenko (1878-1972) was one of the leading scientists of the 20<sup>th</sup> century. In his book written for Americans following his visit to Russia in 1958 he writes: "Comparing the level of qualification papers in Russian and American higher educational institutions one may come to a conclusion that Russian candidate's degree can be equivalent to American PhD. Russian doctoral degree is obviously higher than American doctor of philosophy (PhD). An important requirement is that future professors in Russia possess this degree since Russian higher technical educational institutions are aimed not only at education but also at future development of engineering sciences" [9]. "Thus, favorable conditions for future development of technical science are established, and at present Russia is occupying top positions in all similar fields" [9].

These days many publications referring to different sources note that the Soviet higher school was ranked the first and the best one in the world. However, today Russian education is in the sixtieth range according to various ranking systems. Debates concerning the problem of diploma convertibility, etc. are still urgent. But, in reality, it was simply a matter of a brain drain.

## Results and discussion

**Problems of modern education.** For many people in Russia the meaning of life is barely making money, which was also reflected in education. The power of money generates the atmosphere of economic insecurity, immorality and dissociation of people. The modern governmental policy regarding education is focused on the reduction of higher educational institutions that simply sell their diplomas not caring about the quality of education. One of the problems of modern education is its **focus on the market**. It is possible to compare it with a medieval university where students paid a lecturer and therefore were able to influence the educational process, however not always in favor of its improvement. And it was only in 1350 when lecturers were paid for their work by Bologna government. [10]. At the Congress of Rectors the Russian President defined the problem of **competition for entrants** as follows: "Our higher school has to be strong, it shall provide modern and relevant education. It is clear that everyone cannot master the knowledge of such a high level and quality. And when some higher educational institutions enroll entrants with

apparently poor knowledge it provokes some doubts. Such competition for entrants and hence for financial support at times devaluates the status of a higher educational institution, reduces its value, prestige and authority. What professionals will we get as a result? It is clear that we cannot count on a positive result. Only those who are able to study at the university shall be enrolled" [11].

"According to 2014 results of the Unified State Examination Moscow ranks the first among other regions for the number of students who got from 80 to 100 points in mathematics. At the same time entrants having only 24 points in mathematics, which is one of the most fundamental sciences, were enrolled into such programs as Aviation and Rocket-and-Space Technology, Air Navigation, Information Security, Mechanical Engineering, Electrical and Power Engineering" [11].

One of the problems of modern higher educational institutions is **pedagogical incompetence**. It seems that the quicker the reforms pass and the younger the teachers working at universities are, the more serious the problem becomes. One cannot but agree with the opinion that higher educational institutions need pedagogical professionalism. How to make sure that all participants of the educational and training process begin to interact on the basis of self-organization and self-development? At the 10<sup>th</sup> Congress of the Russian Rectors Union the President V. Putin said: "We must admit that there are still lots of problems with regard to the level of higher education, to the content of educational programs and to the overall quality of teaching. Not every higher educational institution is ready to meet challenges of the modern world and to teach in a way that upon completion of a university its graduates not only have the diploma but also acquire the necessary knowledge and professional skills that can be applied in real work" [11].

Another problem of education and development at a higher school is knowledge in the humanities. Humanities have a determining influence on the development of an individual and the nation as a whole. Successful development of economy alongside with sustainable development of the society is impossible without such education. How does the system that develops creative abilities function at a modern university?

**Development of a scientific method.** Ancient Greek philosophy made the first attempt to rational explanation of the world and thus created a logic that serves a powerful tool of scientific knowledge. In his classification of sciences Aristotle split them into theoretical, practical and creative, thus putting logic separately as a tool of science. Formation of a modern science happened alongside with the formation of methodology. The method became a key part of scientific knowledge that was reflected in the system of philosophy of that time. In England F. Bacon became the supporter of an empirical method in knowledge. In France R. Descartes becomes the founder of European rationality and formulates the rule of a method that plays

a key role in cognitive activity, thus defending the priority of a theoretical method.

The highest achievement of classical philosophy of the 20<sup>th</sup> century was the dialectic of G.W.F. Hegel. For the first time in the history of a human thought he systemically presented the whole natural, historical and spiritual world as a process, i.e. in the framework of continuous movement, change, transformation and development.

When we try to recover the place and role of dialectic in the philosophy of science and education we do not intend to return to the Soviet model. It is about return to Hegel, Marx, to the original essence of laws and categories. The classical dialectic formulated three basic laws: unity and struggle of opposites, transition of quantitative changes to qualitative ones and vice versa, as well as negation of the negation. So, when did the Russian education lose its dialectic nature? Was it in the beginning of the 90s during sharp transition from planned economy to the market economy and while changing a social system? No, it was much earlier.

As far back in the Soviet period the great ideas of Hegel and Marx were given a primitive attribute. In reality, their ideas failed to become a method of creativity and were a mere camouflage to justify the policy and ideology of Russian authorities. Higher education in humanities was formally accepted in a spirit of their method, but in fact the method was discredited. Education in humanities was focused on ontological justification of the USSR history as the only right and single theory and practice of a social progress. Neither strategy nor tactics were considered as consequences of the theory of Hegel and Marx but, on the contrary, their method in such interpretation became a derivative of program ideals of the Soviet state.

**Dialectic and metaphysics in knowledge and education.** The methodological approach has two versions – a metaphysical and dialectical one. A researcher or an organizer of the educational process has to decide which of these two s/he takes as a basis. Nevertheless, the result in both cases will not be identical. Therefore, the choice between dialectic and metaphysics is a real alternative. It is the dualism at least. How to pick a better option? A quarter of a century we imitated the Western model. We believed that the market will solve everything. To be more exact, we did not believe but were convinced to think this way. It was done by pro-Western Russians, who these days are known as pro-Westerners. Later, the history started to call them this way.

In theory, restoration of the primary essence of laws of dialectic implies elimination of metaphysical features so typical for modern Russian education. What does it mean? Metaphysics is an effective expression of the essence of ontological thinking, while dialectic is related to gnoseological one. Metaphysics provides a static perception of the system and dialectic gives a dynamic one.

Metaphysics does not ensure and simply cannot ensure new knowledge. It only projects the perception of a subject with regard to an object. It dictates understanding of the subject concerning the object.

Dialectic includes such forms of knowledge as the problem, hypothesis and theory. Dialectic in its logic equally connects the shift from the problem to theory and back. Dialectic relies on a method that is defined as “abduction” [12]. The term was introduced by Ch. Peirce in 1901, and was later developed by Russian scientists V. Vasyukov and G. Ruzavin [13]. Ideas of Ch. Peirce were further developed in the study of artificial intelligence.

Metaphysics denies dialectic whereas dialectic includes a metaphysical component in its logical system, thus releasing the metaphysics from both objectivism and subjectivism. Metaphysics is the logic of authoritative thinking and therefore it serves the basis for social totalitarianism. Dialectic is the logic of heuristic thinking and hence it serves the basis for humanism and genuine democracy. Why genuine? Because the word ‘democracy’ is so overused that one has to misspeak it.

**Gnoseological thinking.** Some remarks about the styles of thinking in science and education and about ontological and gnoseological styles. Try to answer a question. What is the difference between a student and a scientist? The scientist creates and generates scientific knowledge. The student has to learn the results of science. Here is where the problem starts. How will a student get there? In one case she/he can remember the result as the product of science. She/He can learn it similar to a multiplication table and keep it in memory all her/his life. Another case is when the process of knowledge generation is the major focus of attention.

If the subject matter of science is limited to its product, as a result the student develops the so-called ontological style of thinking. Intermediate steps of a cognitive process, the real mechanism of scientific thinking is beyond the subject area. If the cognitive process itself becomes the subject matter of science, the student develops the gnoseological style of thinking [14]. It is where we ourselves initiate a conflict between metaphysical and dialectical methods. If the ontologism and metaphysics are made absolute, it is possible to diagnose paralysis of an independent creative thought. It is noteworthy that in the history of science and society there are such periods when the potential of ontological thinking repeatedly increases. In the 90s we passed through a remarkable case. In our strive for exempting from the influence of Marxism, we eminently put a sign of equality between Marxism and gnoseologism and thus moved to ontologism. It required almost a quarter of a century to realize and to understand what had happened. We have to admit that together with “soapy water” we “washed off a child”. Recognizing this fact in publications is not enough; it is necessary to put a lot of effort to make this conclusion a property of theoreticians and practitioners, teachers and students. How could it possibly happen is a difficult question to answer. One thing is obviously clear - we uncritically accepted those paradigms that were developed by ideologists in their fight against Marxism.

Gnoseological style of thinking is much more effective in teaching creativity. When solving the problem of teaching creativity we must bear in mind that science should be learned within the aspect of its

method. There is a need to identify those lines within the logic of science that introduce us to the methodology of scientific knowledge. The method of science is the system of cognitive activity, understanding and adoption of which is perceived as a key prerequisite of introduction to creativity. Didactic adaptation of the content of science with regard to objectives of teaching a method can only be ensured through combination of science and pedagogics. The idea of education methodologisation can be more convincing if we analyze the basic components of methodology.

## Conclusion

**Magic of the method.** In 2006, in our book *Magic of the Method* [15] by analyzing the logic of higher school reforms we proposed our own understanding of the current situation and proved the strategy of developing a creative professional as a basic principle of innovative system of educational. Within this concept the methodological culture of a graduate is presented as a main component of job analysis of a modern professional [16]. The concept will make a reform systematic and complete and will indicate the main criteria of efficiency and quality of education under modern conditions.

Development of the innovative system of education is possible on the basis of a grounded philosophy of education properly perceived by the public. As a result of this, the scientific and pedagogical concept shall be developed, discussed, and specified with the focus on didactics of teaching the method of scientific knowledge. Unfortunately, even now such didactic system is not observed, and in the meanwhile it is urgently needed for teaching, learning and managing.

Almost every person aware of official documents within the reform can notice that the phrase “methodological culture” is used quite often. Modern higher educational institutions follow these documents. However, de jure is not always de facto. Methodology that relies purely on metaphysics cannot lead to a positive result. That is why we often hear that violent and administrative methods are applied even when solving inter-subject tasks.

Most importantly, in reality not all graduates of modern universities are able to demonstrate this methodological culture. Again and again these facts bring us back to the question whether it is possible to teach and to learn a method? We answered then and we will answer now – definitely yes! The method as a system of cognitive activity is not yet adjusted to the purpose of education. The point at issue is that a student in the course of study shall not receive a final product as a result of cognitive activity of other people but shall acquire knowledge and skills by using all methodological tools that will allow her/him to pave her/his own way for science, to find new problems and to solve new tasks. In order to implement a gnoseological style of thinking one can use interdisciplinary and above-disciplinary approaches to education that can be implemented through the

introduction of special disciplines in a teaching process: history of science, methodology of science, logic and dialectic [17]. All above-mentioned disciplines shall be taught taking into account students' interests and needs as well as the main objectives of education. There should be a complementary system of interaction among teachers, where tasks in different subjects can be consistent and can relate to common problems. The task should be comprehensive, pass through all courses, thus uniting subjects and methods of different disciplines and, for instance, leading to a final qualification project or paper. These days, innovations become increasingly important, which includes an infinite ability of an individual to ideation, production of something new, which in its turn means that a creative potential of a person becomes a key development factor [17].

It is somewhat simple and too naive to enunciate a methodological culture as the main value of a creative professional and do hardly anything for this purpose. To declare and to organize are very different. There is a need to use the achievements of methodological culture, which has to be adjusted to purposes of the educational process. The didactic of teaching a method of science shall become a special area in higher school of pedagogic. To be more accurate, it is necessary to distinguish between two didactics. One is the didactic of teaching aimed at professors, while another – is the didactic of learning focused on students. It is equally important for both to realize that learning a method can only be efficient when it is done through self-education. It is important to understand that the idea of teaching a method in its pedagogical sense has enough grounds to be a perspective provided it is supported by a retrospective view. Objectives and ideal patterns that a national research university faces shall be achieved by uniting the efforts of all scientists, students, and employees. Both creativity and methodological culture based on the method of scientific knowledge is the primary focus of modern philosophy of education. Teaching this method can only be effective if implemented through self-education, self-development, and self-fulfillment.

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