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#### METHODOLOGY OF THE FORMATION OF REFLECTIVE SKILLS IN EDUCATORS

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#### *Abstract*

Reflection helps optimize and minimize "mistakes" during pedagogical activity; having developed and reflected certain effective methods of teaching, educators do not make the same mistakes and as a result, they break the vicious circle of problems. This enhances professional and creative growth, and the comfort zone at work expands. Reflective abilities allow educators not only to theorize the problem solution, but also to act based on "personal constructs" of behavior. Any educator has a peculiar style of pedagogical activity, and having passed through reflection it becomes unique and authorial. Educators can share these developments with colleagues or forward to students. Self-knowledge takes place throughout our lives, and in our opinion, it is the driving force of human life and development. A child is born, and from the first months he starts to perceive himself in the world through sensations, feelings, observations, tactile interactions with parents and the environment. This process is everlasting, and if it stops, a person degrades. Paraphrasing an ancient saying "Know yourself," we say, "Know yourself and you will know the Cosmos," and reflection is one of the simplest and most widely available means of this process. Therefore, it is not exaggeration to say that the study of this issue is of paramount importance, for both society and science, and personally significant and important for everyone. The knowledge of the Truth, the essence of phenomena, processes and others is impossible without passing through the reflective phase of crystallization of knowledge and experience.

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**Keywords:** Reflection, reflective skills of educators, formation of reflection.



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## 1. Introduction

In the introduction, we focus on versatility of the phenomenon of reflection that implies an exceptional quality of reflectivity as "given consciousness", which provides the ability to experience such feelings as shame and conscience. We understand that we are endowed with a unique property that no other living creature has – the ability to recognize and be aware of our life.

We believe that conscience is a symbiosis of the thoughts of the Higher Self and the personality, it is the foundation of our being. Kapten (1991) writes, "an orientation towards the highest law and one's own conscience is one of the highest stages of the moral development of the personality" (p. 96). We think that unreflected (unworked) data give rise to false shame in a person and inferiority complexes, which inhibit and destroy the personality. Consequently, the formed skills of reflection favor harmonious formation and personal-professional growth of the personality. The higher the level of reflective abilities, the "pure" and true understanding of reality and self-report is.

In accordance with the problem, purpose, object, subject and hypothesis, we set out the following goals:

1. To reveal the essential substantive basis of the definition "reflection".
2. To trace the history of the formation of reflective skills in educators.

The purpose of the study is a theoretical analysis of reflective skills of educators in the system of higher pedagogical education.

Current studies on the formation of reflective skills in educators in the system of higher pedagogical education go back to the long-lived past, which had common origins for emergence and formation of views of homosapiens about themselves. Therefore, this field of knowledge includes theoretical and methodological relationships with philosophical science. It is necessary to ascertain the multi-level nature observed in its interdisciplinary status, and the related scientific aspect of this problem.

Methodological and theoretical study of the "reflective skills of educators" concept includes the study of such concepts as: "reflection", "skills" and "professional skills".

The study will focus on disclosure of the essence of the concept of "reflection", on its origin and transformation during a long history of the development of society and man in these life realities.

The word "reflection" came to Russian from Latin, and the Russian dictionaries interpret the semantics of this word in the following way: "Reflection is a consideration of one's mental state, a tendency to analyze one's experiences" (Ozhegov, 1983, p. 253).

The concept of "reflection" without exaggeration has a long history and reflects the underlying processes of personal development: from material – reflexes (help biological species to survive and learn: for example, hot – remove your hand from fire) to spiritual – so to speak, "reflection – Guardian Angel behind the shoulder keeping a diary of life; unemotional recorder.

The Solomian wisdom "In abundance of wisdom is abundance of sadness" (Eccl. 1:18) can be interpreted as "In abundance of emotions is abundance of sorrow".

This fact alone seems to be an essential reason for theoretical study and practical application of reflective teaching methods in the modern system of pedagogical education.

The semantic factors of the studied issue are, firstly, the need to train reflective-oriented pedagogical personnel able to create and implement conditions for development and self-development of students, and creatively realizing their potential in professional activities.

The philosophical definition of the concept of reflection is given in the encyclopaedic dictionary: "Reflection (from Late Latino: reflexio – turning back). 1. Consideration, self-observation and self-knowledge. 2. The form of theoretical human activity aimed at understanding of their own actions and laws" (Philosophical Encyclopedic Dictionary, 1999, p. 192).

"Reflective history" goes back to the philosophical tradition of Socrates and Plato. Socrates argued that the main task of human activity should be self-knowledge. Well-known Socratic dialogues related to reflection conducted by the philosopher are nothing but an organized act of interlocutor's reflection. Self-analysis of Plato's own experiences and feelings, Aristotle's theory of reproduction, the search for God within yourself in writings by the Hippo Bishop Aurelius Augustin of Ipponia and the Italian philosopher and theologian Thomas Aquinas is nothing but a reflection.

Philosophical doctrine recognizes reflection as a concomitant component of any kind of philosophizing. For the first time, the term "reflection" was introduced into science by the French philosopher, the forerunner of reflexology René Descartes. In his works and further on it became the main methodological principle of philosophical science (as cited in Modern philosophical dictionary, 1996).

The uniqueness of reflection lies in the fact that people tend to gain knowledge not through contemplation of his external activities but turning to themselves.

In the pre-categorical stage of the formation of science, reflection was close to the natural tradition of the analysis of individual human activity. Understanding that knowledge of the non-self is gained through internal capabilities made the reflective ability essentially important in the organizational design of self-conscious thinking.

The evolution of social relationships and social orientation of people's lives are the prerequisites for researchers to study reflection using other principles. The individual natural analysis of reflection was replaced by the activity approach to reveal the concepts "activity" and "thinking" (Anisimov, 1989).

The current interpretation of the concept of "reflection" belongs to the English educator and philosopher Locke (1939). He defined reflection as a special operation of the subject with his own consciousness, which eventually generates ideas about this consciousness. External experience based on "feelings" was divided from internal experience based on person's ability to conduct self-analysis of mental activity. The views of the scientist determined the scientific position for self-knowledge that we find in the psychology of the nineteenth century, in particular, in writings by the German psychologist Wilhelm Maximilian Wundt, who considered self-observation the main method of obtaining knowledge of the psyche (as cited in Lefebvre, 2003).

In the main philosophical essay *The Experience of the Human Mind*, Locke (1939) identifies reflection as a source of knowledge that is sensual and empirical psychological in nature to answer the question of how a person gains knowledge of the surrounding reality.

The Dutch rationalist philosopher and naturalist Benedict Spinoza perceived reflection as "the idea of ideas". The scientist defined reflection of knowledge as a function of the knowledge of the mind with all the variety of its properties and powers.

As is evident, the philosophies from the seventeenth through the eighteenth centuries understood reflection as a characteristic source of knowledge – contemplation of activity or states of mental work, the ability of the mind to turn inward. Thus, we gain knowledge about knowledge through reflection.

The rationalistic position in the study of reflection is related to the German philosophy and Gottfried Leibniz's (1997) logic. The founder and first president of the Berlin Academy of Sciences defines reflection in terms of the distinction between the comprehensible world and the feeling of the world as a strictly mental process, assigns the main place to universal knowledge and truths, and highlights reflection as the source of these highest forms of knowledge. "The process of cognition of worldview and everlasting truths distinguishes us from the animal world and provides us with mind and science thus raising us to the knowledge of ourselves in God. It is this that raises us to the "sentient Soul or Spirit" (Leibniz, 1997, p. 49). Through a conscious study of essential truths and through their reflection, we rise to reflective processes that allow us to reflect on what is "the self"; and, knowing the self, we will also know being, substances, simple and complex, immaterial, and God Himself, understanding what is restricted in us, and infinite in Him, and these reflective acts provide us with dominant objects for our knowledge and evolution.

In *New Essays on Human Understanding and Monadology*, the German philosopher Leibniz (1997) disputes about the issues of the theory of knowledge with the English philosopher Locke. "I think," the scientist says, "that the whole universe consists solely of simple substances, or monads, and their combinations... Natural changes of monads come from an internal principle since an external cause can have no influence within a monad" (Leibniz, 1997, p. 58).

The Scottish philosopher David Hume had similar thoughts and believed that ideas are a reflection on impressions received from outside. They refract the real ability of a person to self-report the facts of consciousness experienced by him, to self-analyze his own mental states (as cited in Kanke, 2018).

The German philosopher Kant (1993) distinguished two types of reflection: transcendental and logical. He assumed that transcendental reflection is an act to determine "whether representations are compared with each other as belonging to pure mind or to sensual visual representation" (Kant, 1993, p. 109). Logical reflection is considered to be the subject's focus on formal logical operations with concepts, judgments, and deductions.

In his study on transcendental reflection, Kant (1993) argued that this problem should be considered from the perspective of a dialectical unity of the "internal" and the "external". In the philosophical work *Critique of Pure Reason*, the section *Amphibolia of Reflective Concepts* states that "...there are no absolute boundaries and absolute opposition between the "internal" and "external" properties of matter. The "internal" must manifest itself in the "external" forces and relations" (Kant, 1993, p.84). Here, transcendental reflection eliminates the unconditional boundaries between these categories. For mental reflection, these boundaries are unconditional, given once and for all, and are incapable to move from one opposite to another. Thus, mental reflection absolutely opposes the "internal" to the "external", and the difference between them causes nothing but unambiguous opposition.

Based on Kant's fundamental works, we can draw the following general conclusions regarding his consideration of the problem of reflection: it is a mental act; it is a method of analyzing self-consciousness; it should be studied as a means and form of knowledge.

The German philosopher Johann Gottlieb Fichte focused mainly on the orientation of reflection to the internal processes of consciousness, which were discussed in the debate between Locke and Leibnitz. He also focused on the idea of Kant about the differentiation of knowledge according to the method of knowledge (as cited in Fichte, 1995). In Fichte's philosophy, reflection is considered as inner perception, which, similar to the external one, includes contemplation and thinking (Philosophical Encyclopedic Dictionary, 2018).

Consider the transformation of the absolute Self according to Fichte's (1880) philosophy. In the philosophy of Friedrich Wilhelm Joseph von Schelling, Self transforms into divine principle, identity of the subject, that is, transcendental philosophy and natural philosophy are referred to as "mutually fulfilling, requiring each other, despite their opposition in terms of principle and orientation" (Fichte, 1880, p. 79). Schelling believed that there are laws common to the world and knowledge. The creativity of the genius artist and nature are based on the same laws, and the equality of the laws of the subject and the objective worlds should be implemented in creativity.

Thus, according to Schelling's logic, knowledge is guided by imagination, and his works bring the scientist to the philosophy of art and creativity. In his works, F. Schelling wrote about the most important form of reflection – "Divine revelation" (Fichte, 1880).

The German philosopher Hegel (1975) investigated the issue of absolute reflection. He considered absolute reflection within the framework of the theory that states that the absolute beginning of things defined by the scientist as "subject – object". The theory states the double focus of perspective: transcendental philosophy (object of which is the subject), and natural philosophy (knowledge of nature).

The starting point of Hegel's (1975) Phenomenology of Spirit is the idea that the non-personal beginning of the world knows itself. Religious ideas are only an inadequate idea of self-knowledge of the "absolute spirit". The philosopher developed the thesis that knowledge is self-consciousness of the absolute beginning of reality itself. In Hegel's opinion, the basis of reality is "objective definitions of thought". The phenomena are not in the mind but in something else, which can be approached by the phenomenon reflection, its internalization, internal deepening. In this manner, one can come to the positively limited or to the essence.

In the work Science of Logic, Hegel (1975) described the most important stages in self-development of the absolute and the knowledge of objective reality and its reflection. Having mastered the reflection, a person can make transition from the sphere of necessary to the sphere of freedom. In mental activity, reflection acts as a researcher of essential foundations. The concept is conceived not as a frozen form but as an action. In Hegel's (1937) opinion, reflection perishes in decision-making, since the certainty of desire is deactualized and put into decisions. The act of reflection implies comparison of everything that was in the moments of desires. That is, reflection is characterized by motion, not stops and not structure. Hegel points out that reflection distinguishes various aspects of activity that are reflected in each other. Reflectivity in each other is the characteristic inherent in reflection. Hegelian duality of the characteristics of logic shows the duality of mental activity (Hegel, 1937).

To date, the concept of reflection in science has ceased to be only philosophical or general scientific. It became specifically scientific, in particular, psychological, pedagogical, mathematical, and other.

Reflection is considered in the world and domestic philosophical works as an element of consciousness. Similar to any form of the psyche, consciousness is not a material object, but a symbolic being of the brain structures. Based on this, we can conclude that reflection is also intangible, but we recognize that both consciousness and reflection are objective.

Modern science defines the methodological function of reflection as a deep understanding of the activity of an individual, and its essential meaning lies in the process: individual's understanding of social realities; self-knowledge of internal mental acts, states, and qualities by the subject; look back (analysis of past experience).

This definition of the substantive essence of reflection is most revealed in the field of philosophy and psychological and pedagogical sciences. A shift in understanding the essence of reflection reflects the historical evolution of society and socialization as a condition for the manifestation of duality of thinking – self-conscious and self-determined thinking. In the past, the interpretation of reflection indicated the nature of thinking of the individual.

Study on the problem of the formation of reflective skills in these (and other) areas clearly showed two main features of the current state of the problem. The actual material and important experimental results were obtained and a number of explanatory concepts were formulated, which contributed to the emergence of a special "reflective" movement. However, the development of these clearly shows drawbacks and complications, which should be solved to enable further formation of reflective educators' skills in higher professional education. First of all, this implies the dominance of the abstract philosophical approach to the problem of reflection over the concrete scientific approach. As we have shown above, the category of reflection has a very long philosophical background and a rather short psychological and pedagogical one. In this regard, the subject of research showed a general aspect only, but not an ontological one that possess a set of personal sequences of mental reality. This does not contribute to the development of a "positive science of reflection", which suggests psychological and pedagogical component as the most important one.

## **2. Problem Statement**

In the study, we faced the problem: what are the main theoretical and methodological aspects of the concept of the reflective skills of educators in the system of higher pedagogical education?

## **3. Research Questions**

The study investigates the establishment and formation of the reflective skills of educators in science.

## **4. Purpose of the Study**

The purpose of the study is theoretical analysis of the reflective skills of educators in the system of higher pedagogical education.

## 5. Research Methods

Theoretical analysis of philosophical, pedagogical and psychological sources was carried out. An integrated methodological approach used in the theoretical study included analysis, synthesis, concretization, abstraction, and modeling.

## 6. Findings

The relevance of study of the reflective skills of educators in the system of higher professional education is determined. The concept of "reflection" is specified: reflection is not information, it cannot be "taken and transmitted"; you can only stimulate and develop the ability to use it to some extent.

## 7. Conclusion

To sum up, study of the issue of reflection is posed by today's realities of pedagogical theory and practice, as well as by the order of society for highly qualified teaching staff who should exhibit a set of reflective skills. These skills can become a driving force to solve this problem assigned to the pedagogical system of higher professional education.

Reflection allows us to know the truth as the highest characteristic of thinking and deviations that occur in our lives, which lead us away from the main knowledge of the truth of being.

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