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METHODOLOGICAL ORIENTATIONS AND EDUCATIONAL STRATEGIES IN THE FORMATION OF THE MODERN AGE THINKING

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Abstract. The article outlines methodological guidelines for the development of thinking in education. Relevant and productive is the thinking that aims not only to explain the unknown, but also to find the unknown and the unbelievable in the known and the obvious. This is a thinking of a different order, which is first in overcoming the existing boundaries, in "combining of not combined", i.e. different, not reduced, etc. Its vitality is possible only if it constantly changes, destroys, balancing on the brink of chaos. It is emphasized that this thinking is not carried out in a well-defined way, it moves in agendas and changes in different directions, overcoming the boundaries of outlined representations, opening new horizons of understanding of being and place in it. It is argued that the development of thinking in education aims to move from learning focused mainly on memorizing a certain amount of knowledge to self-conscious understanding of them.

Keywords: thinking; complexity; modernization; philosophy for children; knowledge; potential

Introduction

Nowadays a public education mission aims to find adequate, effective responses to the challenges and queries of the era. In the realities of today, it must not only keep pace with time, but also become that special sociocultural phenomenon that sets the tone for social change and transformation. In general, societal changes are evidence of large-scale crisis phenomena, a number of dangerous risks and disturbing forecasts, etc. that destroy the structures of the world order and the logic of their existence. The world is becoming fragile and unstable, as every minute is able to acquire new properties and characteristics and change the trajectory of its development. The determining factors for the existence and development of the modern world are chance, spontaneity, and probability. Such a situation, on the one hand, attests to the crisis nature of the modern universe, and on the other, indicates its emergence into

radically new horizons of development. The modern man is increasingly aware of the strangeness of his position in society and nature. It is in a space of danger, disorder, potential risks that it has not yet encountered. Obviously, a person becomes less and less of a creator and master of his destiny, as he becomes a hostage to the world he created himself, every second meeting the realities of the future and lacking the ability to adapt to a fleeting life.

To find cultural forms commensurate with the present, to maintain balance in a dynamic and changing world, a person can create a holistic picture of himself and the world he lives in. It must regard the surrounding world not as a permanent, unalterable and harmonious structure that needs to be learned and to be adapted in the course of life, but as an area of cognitive and practical uncertainty where one must overcome difficulties and create oneself and new social realities all the times. Knowing the world as a holistic, complex and multi-vector world is both an intellectual and a vital necessity. Their solutions require a person of a different mindset, the ability to respond creatively and flexibly to all changes, to rethink the knowledge acquired, considering them in the context of probability and occasion.

One of the areas of realization of the tasks outlined before the education is the development of a person's thinking and character of actions that would be adequate to modern realities and allow him to realize the opportunities and risks of his activity in an unstable world. In a world where people are constantly changing, there is a need to respond creatively and flexibly to all changes, to know the changing realities, to constantly re-think the acquired knowledge, considering them in the context of probability and chance. According to O. Zhukov, the priority in the conditions of the present is the ability of a person to "grasp novelty", "feel time", "manage the dream", "anticipate future changes and their consequences", "plan and implement projects in life" ... (Zhukov, 2007: 244).

The purpose of the article is to outline the methodological guidelines and educational strategies in the formation and development of the modern era thinking.

The stated purpose is realized through consideration of a number of following questions, namely: what is thinking; how you can and what thinking you need to teach; what are the features and characteristics of this thinking; how ideas of new thinking can be put into practice in education and more.

Literature review

Scientists have created a number of studies on the problem outlined. Experts of various fields are engaged in questions of study of effective thinking transition nature and features. Using an interdisciplinary research context allows them to form new paradigms that symbolize a new scientific understanding of the world. The essence and functional characteristics of the transition to new thinking are presented in the concepts of "innovative thinking" (Delia, 2011), "complex thinking" (Moren, 2011), "nomadic thinking" (Deleuze & Guattari, 1992), "transversal mind" (Welsh, 2004), etc.

The methodological diversity of the concepts attests to the complexity and diversity of the thinking phenomenon.

The methodological potential of their ideas is considered in the article in accordance with the principle of proliferation proposed by P. Feuerabend. This approach allows us to create a methodological space as a rhizomorphic structure where the competing directions, approaches, ideas intersect, interact and develop. Their mutual criticism, difference, and contradictory character stimulate scientific knowledge. Thus, V. Delia presents innovative thinking as "a special type of thinking that combines rational, intellectual, creative components, objective and subjective reality, the ability to penetrate into the essence of things and phenomena that bring to life the result, in the form of innovations that effectively solve the existing contradictions of reality, improve the human life (Delia, 2011: 63). Innovative thinking is focused not only on the creation of the new, but also involves the revision, creative destruction of the ideas already created and established. This thinking process focuses on the use of unexpected changes and contingencies that are not be seen as a potential opportunity to create a fundamentally new understanding of the realities of being. Learning to think innovatively means thinking alternatively, given the complexity and many perspectives of the object of knowledge and the complexity and integrity of human nature. The concept of "complex thinking" is subordinated to this idea. The thinking process focuses on the use of unexpected changes and contingencies, which are not be seen as minor phenomena, but rather as a potential opportunity in creating a fundamentally new understanding of the realities of being. Openness, transdisciplinary, creativity imply simultaneous consideration of problems from different perspectives, at different phenomenal levels of explanation that are related to different discursive and disciplinary perspectives. By its nature, thinking should reflect and symbolize the very essence of life with its rational and irrational manifestations. The complexity of the world is reflect in not only the multitude of aspects of its existence, but also in the presence of non-trivial, unexpected connections between them and the ability to create these bonds and connections. Genuine and unpredictable relationships, combinations are seen as a kind of "glue" that brings the elements together and make it whole (Moren, 2011).

The ability to transition and understanding the differences does not imply any absolutization. The recognition of plurality and variability, the search for transitions in the understanding of differences deprives this thinking of legislative and repressive character. It does not leave the world of intuitions and feelings, everything connected with the inner world of man, which is "transversal". According to W. Welsh, in a substantive aspect, this unity is specific because it has no ability to realize its claim to totality. It is realize in a plurality that does not go to a single denominator by finding a common one and leveling it differently (Welsh, 2004). Nomadic thinking is close to transversal thinking. It also activates its potential for finding the differences. Playing on the semantic potential of differences creates the conditions for the development of nomadic thinking, which is focus on situations of constant transition, "wobbling"

from one sense to another, without focusing on anything and giving no advantage. It is capable of creating new intellectual horizons for the nomad man in the conditions of unlimited possibilities of the virtual modern world (Deleuze & Guattari, 1992). The appeal to the methodological potential of these concepts and approaches is that they make it possible to understand educational activity as an open knowledge practice that is acquired through the independent interaction of learning subjects and presents the functioning of educational activity as a plastic, flexible and self-organized education system. This thinking takes into account the world and the human being as complex holistic structures that are in constant interconnection, movement and change itself. The common ground of research is that such thinking is capable of offering new ways of developing the human community in the face of a permanent crisis and not the predictability of being.

Discussion

Thinking sets people apart from other beings. It is what man creates and what creates man. The process of thinking symbolizes a higher degree of human cognition that is associated with processing information and storing its results in order to continue to be used in life practices. The philosophical vocabulary interprets this concept as the creative ability of a person who has formed and developed in the process of his life. This process involves constantly regrouping and rethinking all the possible meanings of consciousness, creating and destroying existing connections and relationships. What a person has learned is the same as an opinion through which he or she has learned it (Philosophical Dictionary, 2002: 577). Obviously, thinking is given to a person as a project to be taught. What does it mean to teach thinking? The German philosopher M. Heidegger answers this question. He states that "a person learns when he aligns his actions with what is addressed to him at that moment. We learn to think when we subordinate our attention to what is given to us for understanding" (Heidegger, 1991: 34).

Therefore, one learns to think while comprehending and explaining the being. Reality is shaped in the same way as participants' opinions. Accordingly, the more complex thinking is, the more complex the reality (the actual understanding of this reality) becomes. However, reality is not identical with thinking. It is always more versatile and complex than we understand, and therefore it has the ability to be amazing. Thinking has the ability to create and comprehend in this way transcending reality. J. Soros points out that "there is a difference between what people really are and what they imagine; there is also a two-way reflexive connection between image and reality, even stronger than in the outside world, since it does not need mediation of the external event so that thinking could influence the subject of consideration" (Soros, 1996: 5).

But what kind of thinking should be taught in order to be able to adequately and effectively reflect the changing realities of modernity. Thinking is relevant and productive when it aims not only in explaining the unknown, but also in finding the

unknown and the unbelievable in the known and the obvious. This is a thinking of a different order, which is first in overcoming the existing boundaries, in "combining of not combined things", i.e. different, not reduced, etc. Its vitality is possible only if it constantly changes, destroys, balancing on the brink of chaos. This thinking is not carried out in a well-defined way, it is driven by impulses and changes in different directions, overcoming the boundaries of outlined representations, opening up new horizons of understanding of being and place in it. In this way, it is able to reflect the changing nature of realities, their constant dynamics and variability. Thinking can be explicated in the form of holistic unity of interdependent, interdependent factors, principles that are embodied in interdisciplinary research. Using the same habitual thinking and skills of the industrial era in terms of global "macro-disruption" (E. Laszlo), according to L. Gorbunova, "is equal to the attempt to live in modern metropolitan areas with the thinking and horizons of medieval feudal villages" (Gorbunova, 2011: 37).

What are the features of this thinking? First of all, this thinking is contextual, aimed at overcoming the disjointed, separated in different spheres of knowledge. However, it does not seek to "fit" things and phenomena into a given context, but involves a constant search for relationships, interactions between them. Accordingly, the product of mental activity is not a "frozen" image, which apriori should be seen as an obvious, a given, but as a process of constant further creation of other contexts. This thinking floats to context, demonstrating, at all times, its procedural nature. It transitions between different meanings and constellations of rationalities. The recognition of plurality and variability, the search for transitions in understanding differences deprives it of its legislative and repressive nature. It does not leave the world of intuitions and feelings that is connected with the inner world of man. It is these acts that allow a person to find and "roll over small towns" between seemingly incompatible ideas, thoughts, thus demonstrating a new understanding of problems, creating an innovative product, etc. This kind of thinking is transversal in nature.

Another feature of thinking is its open character, its ability to be connected to the life priorities and value system of those who know. The art of thinking is the art of life, which implies not only the proper use of logic, rules of deduction and induction, but also the art of argumentation, the ability to engage in open and constructive dialogue in which new meanings and configurations of knowledge are born. It helps to overcome the boundaries that exist in a rational type of thinking. Such thinking is the basis for ethics of relationships, tolerance, complicity, understanding, freedom, faith and hope. Being able to combine radically different, opposite ideas, views, meanings, etc., it creates certain guidelines for productive cognitive and practical activity, which is carried out in accordance with personal preferences, outlook, and specific human experience. Such thinking is a product and at the same time a prerequisite for the development of an information society. It reflects the essence of today's changing world. This thinking does not imply mechanical, reproductive development, but takes the form of creating a space of new possibilities for action. To teach thinking is to be

able to combine and create new configurations, not only from unknown elements but also from known ones, overcoming their stereotypical structured unity and causing chaos, which creates a new unity.

The implication of these methodological orientations and ideas in the educational sphere significantly changes its purpose. Education is viewed as a field of continuous production and revision of knowledge, which is constantly emerging in fundamentally new conditions and is relevant in changing transition situations. Focusing the attention of the educational interaction on the isolation of problems of the studied subjects and phenomena rather than studying and summarizing the obvious results is the core idea of education. A problematic situation is a starting point for thinking, it is a testament to a difficult choice situation that requires careful consideration and evaluation. Problematic learning cultivates questioning, search reflexivity, creative intentions. At the same time, mastering knowledge without solving non-trivial problems becomes ordinary schooling: jagged and tell. The problem-seeking organization of the educational process transforms the classroom into a "community of researchers", which is not a formal entity that functions by order or order. In such a community the educational engagement participants learn to listen and hear one another, to treat one another with respect and tolerance. Collaboration of the educational interaction participants on creation of knowledge, discovery of their new properties and characteristics in solving practical problems significantly influences their moral and value world, makes education truly person-oriented.

Another conceptual idea of innovative thinking implementing into education is to build a dialogue-based learning process. Dialogue interaction involves the development of the following skills: the ability to hear and listen to another person, to attach to his inner emotional state, to take into account his mood; the ability to clearly and definitely formulate their opinions, argue their position; the ability to combine the individual and the collective in the dialogue. Thus, it becomes important to reflect, to generate new thoughts and ideas, taking into account the world of others, rather than opposing and denying it. The other person in the dialogue interacts with the right to be different. Reflection fully develops only on the basis of personal subjective experience of evaluative activity. The role of the teacher changes significantly. Instead of being the mentor and the oracle of truth, he becomes the singer of the seeker and the creator of knowledge in the research society. The educator coordinates and organizes students' activities, learning and exploring the world with them. An example of such interaction is the method of utopia proposed by Socrates in his time.

An example of the practical implementation of these ideas is the Philosophy for Children curriculum. It is authored by renowned education theorist and professor of philosophy at Columbia University, Matthew Lipman. In the basis of the course "Philosophy for Children", he laid the problem-activity methods of obtaining knowledge, which are aimed at the development of independent critical understanding of problems, awakening the creative potential of participants of educational interaction.

The focus is not on memorizing information, but on "creating it with a philosophy" that involves the use of intelligence efforts to address the problems involved in the daily lives of participants in educational engagement. Children are interested not only in what is understandable and accessible to them, but also in something beyond their capacity and knowledge. "Philosophy for Children" aims not only to present the world development of philosophical thought, but to borrow its questionable character, style of reasoning, recognition of multivariate answers, ability to formulate hypotheses and formulate judgments, etc. The slogan of this program is: "Thinking must be taught". The researcher argues that thinking is a special phenomenon that is not limited only to natural characteristics, but is also understood as a skill that is open to improvement (Lipman, 2005: 34).

Within the framework of the Philosophy for Children curriculum, there is a departure from the traditional information model in favor of the reflective one, which focuses on the development of thinking, the use of the internal, emotional potential of participants in educational interaction. It should be noted that the ideas of M. Lipman were further developed in the work of the Norwegian writer and researcher of philosophy problems J. Gorder. He has devoted a number of books on the history of philosophy to children, including: Philosophy for the Youngest, The Predictions of the Joker, In the Mirror, in the Puzzle, Sophia's World, and more. In particular, Sophia's World has endured several dozen reissues in 46 countries and has become a worldwide bestseller. Sophia's World is a novel about the fascinating journey of a 14-year-old Sofia girl into the world of philosophy. The protagonist finds in a letter box a letter from a mysterious philosopher who had only two questions, "Who are you?", "Where did the world come from?" For centuries, people have been trying to find the answers to the question: who they are and what they live for. Where did the world come from? Who are we? Where are we going? These questions have always interested humanity. They begin the journey of the girl to the world of philosophy, ranging from thinkers of Ancient Greece to philosophers of today. This journey is a journey of imagination, intelligence, thinking, revealing the mysteries of the World and the mysteries of the world of wisdom (Sophia's world) (Gorder, 1998). It demonstrates the child's ability to look beyond disciplinary barriers, examines relationships between different aspects of the problem, takes into account different opinions and views. Thus, the conceptual framework proposed by M. Lipman is relevant in outlining strategies for the development of critical thinking in education. The implementation of ideas of critical thinking in the practice of education, in his opinion, allows realizing two goals – to convey time-tested knowledge and cultivate wisdom (Lipman, 2011: 36). If traditional societies with high levels of stability existed and developed through the preservation and translation of a certain amount of knowledge, the first goal was supposed to be fulfilled, then the changing present needs flexibility and ingenuity in critically understanding existing problems. The 21st century is increasingly in need of intellectuals not erudite, but a person who is able to navigate the sea of information,

showing the ability to study and learn, avoiding established patterns and stereotypes. In recent decades, the ideas of the development of critical thinking by Matthew Lipman have been actively introduced into the practice of Ukrainian education. They are embodied in the educational technologies used in the teaching of the disciplines as well as in separate educational courses.

Conclusion

Thus, the development of thinking in education aims to move from learning focused mainly on remembering a certain amount of knowledge to self-conscious understanding of them. It is relevant in the realities of a permanently dynamic era because it denies any authority and is anti-dogmatic. This kind of thinking does not come down to a specific algorithm and is not riddled with stereotypes and standards. It manifests in a person's ability to resist the influence of others' thoughts, to objectively evaluate their thoughts, to carefully review their decisions, to weigh all the arguments for and against. This thinking reveals the unique individuality of the individual. As a result, according to S. Klepko, education helps a person to "give birth to a dancing star", that is, to reflect on himself and achieve his goal (Klepko, 1996: 4). Not only knowledge gained is significant, but also the ability to search for it, focusing not only on a pattern, but using and developing one's personal potential, listening to, or simply respecting the opinion and position of the other person. It is clear that no methodological conception can bypass the teacher's talent and love, cannot determine the set of values and qualities that he needs for successful professional activity, will not be able to replace human culture with the culture of technology.

Given that the problem of thinking development is relevant to Ukrainian education, it is advisable to continue the research. In particular, to analyze the benefits and risks of introducing critical thinking technologies into learning activities.

REFERENCES

Welsh, W. (2004). *Our postmodern modernist style*, Kiev: Altepress, 328 (in Ukrainian).

Gorbunova, L. (2011). Complex thinking in response to the challenge of the era. *Philosophy and methodology of higher education of Ukraine in the context of European integration processes.* Kiev: Pedagogical Thought, 35 – 49. (in Ukrainian).

Gorder, Y. (1998). *Sophia's World. A novel about the history of philosophy.* Lviv: Chronicle. 578. (in Ukrainian).

Delia, V. P. (2011). *Innovative Thinking in the XXI Century*. Balashikha: Publisher De Po. 232. (in Russian).

Deleuze, J. & Guattari, F. (1992). A treatise on nomadology. *New Circle, 2.* 183 – 187. (in Russian).

Zhukova, E.A. (2007). *Hi-Tech: Phenomenon, Functions, Forms*. Ed. Melik-Gaykazyan. Tomsk: Publisher of Tomsk Ped. Univ. 376. (in Russian).
Klepko, S.F. (1996). The secrets of thinking of George Soros. *Postmethodics, 2 (12).* 1 – 2. (in Ukrainian).
Lipman, M. (2005). Critical Thinking: What Can It Be? *Postmethodics, 2 (60),* 33 – 41. (in Ukrainian).
Lipman, M. (1996). Reflexive model of the practice of education. *Philosophy for children.* Executive editor N.S. Yulin. Moscow: Ifran. 244. (in Russian).
Moren, E. (2011). *To the abyss?* St. Petersburg: Aletheia. 136. (in Russian).
Soros, J. (1996). I Know What I'm Talking About… (Fragments from the Book "Endorsing Democracy"). *Postmethodics, 2*, 3 – 7. (in Ukrainian).
Philosophical Dictionary of Social Terms (2002). Ed. V.P. Andrushchenko. Kharkiv: Corvin. 672. (in Ukrainian).
Heidegger, M. (1991). What does it mean to think? *Talk on a Country Road*; Moscow. 134 – 145.

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