

THE ACTUAL PROBLEMS OF THE WORLD TODAY

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The Actual Problems of the World Today

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DIDACTIC TRIADAS "LEARNING - TEACHING - MANAGEMENT" IN THE CONTEXT OF REALIZATION IN THE EDUCATIONAL PROCESS OF INNOVATIVE AUTHOR'S NOVATIONS

Introduction. Philosophical, economic, anthropogenic and psycho-physiological analysis of the development of society and personality confirms the prominent role of the educational process for constant progressive changes in personal and social orientation. In the philosophical sense, a manifestation of the effect of the law of reproduction of society appears to be significant, the essence of which is to establish the interdependence between the development of society and the development of education. In this context, V. Ohneviuk states that "the more developed a society - the greater its need for education, and the more advanced education - the more perfect the society becomes" [1, p. 29]. An analysis of the economic progress of the developed countries also shows the link between significant economic achievements and the high level of development of the educational process.

Consideration of anthropogenic dimension confirms the fact that in the evolutionary development of the personality of a person significant progress has been made from the process of reproduction of a person as a wise man (*Homo sapiens*) to the process of reproduction of a person as an enlightened person (*Homo educatus*). This personality type of person was formed in the course of the dynamic growth of the complexity of the world and the formation of the educational process with an emphasis on the purposeful formation of the ability to effectively teach and adequately and responsibly act in the conditions of constant socio-economic changes, as well as in the intensive production of scientific knowledge.

The significance of the educational process for personal and social progress convincingly illustrates the psycho-physiological dimension, according to which the conscious mental activity of man and the realization of her creative potential throughout his life provide various psychophysiological mechanisms of his body, including three functional blocks of the brain. It is about the energy block or block of regulation of activity (tonus) of the brain; a block of reception, processing and storage of information and a block of motivation, programming, regulation and control of

mental activity. These blocks are detected by scientists in each hemisphere of the brain and found that their optimal interaction provides the ability of the person to constantly teach himself.

Indicative for the educational process is that at the level of the genotype a person is inherent, on the one hand, the ability to adapt to any living conditions and even to those which in the past did not experience its previous generations, and, on the other hand, the uniqueness inherent in each a person of a mental status, manifested in the interindividual variability of the psychological characteristics of her personality.

The basis of the ability of a healthy person to learn is the probabilistic activity of his brain. Higher mental functions are performed by the brain on the basis of the transformation of uncertain information into the set of information signals that come from the processing of external and internal environments. Probabilistic activity is that during the passage of information signals by neurostructures of the brain, it takes into account the experience of probabilistic prognosis in the past and the real situation of the present. It is due to probabilistic activity of the brain that it becomes possible to predict the human future consequences of the planned actions in everyday life and in the educational process.

Convincing evidence of the influence of the educational process on personal and social development indicate that the educational process, being the formation of society, functions and develops due to modernization phenomena and innovative developments of scientists from all over the world. This study deals with the introduction of innovations in the functioning of the structural components of the educational process, the so-called triad. In the scientific work of V. Savosh [2] the notion of "dyad" is used to denote the result that is formed by the semantic combination of two studied processes of the sciences. With regard to the educational process, one should speak of the triad "learning - teaching - management", which is a generic term for the three structural components of the educational process, which are singled out in the context of didactics as a learning process science.

The essence of the didactic triad "learning - teaching - management" in the context of the educational process. The participants in the educational process are those who study and those who teach. Each of them has its own field of activity and field of interaction with other participants in the educational process. Self-realization in each of the fields affects the results of the educational process. The emphasis on the fields of activity of participants in the educational process serves to distinguish the components of the didactic triad (learning, teaching, management) and the consideration of a single functional whole, namely: triads.

Studying as a component of the didactic triad "learning - teaching - management" is "conscious, purposeful and independent activity of the learner, which is accompanied by direct or indirect interaction with others (those who teach and those who study), is

directed to mastering knowledge, ways of action and the formation of experience in organizing their own activities "[3, p. 365].

Enrollment is not identified with the notion of "educational activity", since it permeates every kind of human activity, including educational activity. Passive teaching does not happen, because learning yourself means to show, firstly, activity directed at a conscious purpose, and secondly, self-organization of actions aimed at the acquisition of certain knowledge, abilities, skills, competencies.

V. Huzieiev and A. Ostapenko characterize "learning as an active way to teach yourself" [4, p. 248]. According to R. Gagni [5], the process of learning consists of four phases: the phase of perception (obtaining information at the expense of actualization of attention, perception and short-term memorization); phases of assimilation (encoding and transferring the acquired knowledge into long-term memory); phase of storage (own storage, search in memory of necessary information and reproduction); phases of execution and control (external execution of actions and reception of feedback).

Conducting the study becomes possible only at a certain stage of the development of the psyche, especially when the learner becomes able to regulate his actions for a conscious purpose.

The experience of success in teaching induces the learner to active learning and cognitive activity and is accompanied by a sense of cognitive growth, a general positive attitude to this process and its results. While the lack of experience of success in the teaching, which essentially expresses the attitude to itself and to the subject, suppresses cognitive activity and reduces the effectiveness of the activity of the learner. And, therefore, it is expedient to consider the study in the context of other components of the triad of "learning - teaching - management", that is, in the context of teaching and management.

Teaching as a component of the didactic triad "learning - teaching - management" is a "process of direct informational and educational influence of the one who teaches, on who learns" [3, p. 348]. Teaching includes, firstly, setting goals of the activity of those who study, and secondly, providing information and educational support for the implementation of various activities. Teaching can be carried out using a variety of modern means, and also provide for an appeal to imagery. Informational-educational influence during the teaching is provided not only by the speech of the person who teaches, but also by his gestures, facial expressions, tone of voice, rate of broadcasting, etc.

The basis of teaching is knowledge (theoretical (general (philosophical, methodological), special (pedagogical, didactic, psychological, sociological, andagogical, etc.), professional, procedural, technological, symbolic, etc.).

The quality of teaching is influenced by: professional motives (desire to carry out professional activities in a new way, interest in the pedagogical profession, the ability to creatively realize oneself, etc.); social motives (realization of the desire to get status, to build a career, etc.); motives for prestige (achieve recognition among colleagues, etc.); motives for cooperation (the desire to use what has been seen (perceived) in work, to expand its functionality); motives of self-actualization (the desire to experiment, to master the innovations of modern psychology and pedagogy); the level of proficiency of the teacher.

Effectiveness of teaching is influenced by: the correctness, moderation of the tempo and the intonational expressiveness of the speech of the one who teaches; using a distance as a means of contact and changing the position of the premises during the teaching process; friendly and interested look towards those who study.

An important teaching characteristic is its productivity. The unproductive level of teaching is characterized by the fact that the one who teaches, tells those who are learning what he knows. For non-productive teaching, the informational and educational influence of the person who teaches is characterized by the adaptation of the content of the information to the characteristics of the learner. In the course of implementing medium-productive teaching, the informational and educational influence is aimed at the direct and consistent inclusion of those who study in the activities. A high level of teaching is aimed at creating conditions for different learning methods for those who study and managing their cognitive autonomy and activity on the basis of feedback on the course of the educational process.

Management as a component of the didactic triad "learning - teaching-management" should be understood as a constant movement and exchange of information between participants in the educational process, that is, between those who teaches (the subject of management) and those who learns (management objects). Information in this case is considered as a means of communication of a subject with objects of management and objects of management with the external environment. The information management of the educational process of those who learns, contains a set of information needed by the management entity for knowledge and assessment of the state of the educational process. Information as a feedback allows the subject to compare the actual state of the educational process with that which was designed in accordance with the goal.

The management involves owning someone who teaches managerial knowledge and skills and didactic-managerial. Among the latter, it is worthwhile to highlight those relating to various types of management, in particular: cyclic (the activity of those who study is directed on the basis of purposeful control, self-control and mutual controls); directed (carried out on the basis of individual managerial influence); scattered (implemented in the educational process as a frontal guidance action, learners); manual

(providing verbal control); automated (implemented in the educational process with the help of various modern means); open (in the educational process there is unmanaged and uncontrolled activity of those who study).

For centuries, the activities of the learner have acquired certain dominant characteristics. In this way, the formation of different teaching styles took place. In the case of implementation in the educational process of the autocratic style of the management of the activity of those who study, were guided by designations, instructions, control exercised by those who teach, based only on the visual perception of the course of the educational process. There was no information on internal contradictions that accompanied the awareness of those who were studying that the educational material was not available, as it was not supposed to express their own thoughts, asking questions or involving them in the discussion of topical issues.

Among the administrative actions inherent in the authoritarian type of educational process management, the instruction, instruction and gratitude with reproach dominated ("You worked well today, did not wait for such cognitive activity). A certain change in the spectrum of managerial actions can be explained by the fact that the information about internal contradictions that arose in the minds of those who are learning, acquired some talk of them. This was facilitated by the fact that the educational process allowed the participation of learners in the discussion of various issues related to their activities. However, giving away those who study only the role of passive listeners who perceived the results of the formulation to those who teach, generalizations, intermediate and general conclusions prevented the constant movement and exchange of information in the educational process.

To the managerial actions of a liberal type of educational process management can be considered advice, information, management based on fuzzy and uncoordinated requirements. The analysis of these managerial actions shows that the movement and information exchange between the participants in this process is an episodic phenomenon. Accordingly, the one who teaches, because of the lack of feedback, reveals a false pedagogical position regarding the course and the results of those who study.

Informing, occasional management based on fuzzy and uncoordinated requirements is a managerial activity typical of those who teach, ignoring the type of educational process management. Lack of movement and information exchange between its participants leads to poor performance of the educational process.

A slightly different set of managerial actions was used by those who teach in the case of a democratic type of educational process management. It is advice, information, coordination, management, which is carried out on the basis of well-formulated requirements that are pre-agreed with those who study. The educational process is "filled" with communication, which is based on deep respect and orientated on self-

organization, self-management by those who learn, their own actions, serves as a manifestation of their cognitive activity, accompanied by the expression of their own thoughts, etc.

The management of the trainer is an integrated sum of such interrelated functions:

- 1) planning (goal setting, definition of activity content, didactic tools (forms, methods, tools);
- 2) organization (organizing the educational process according to the planned one);
- 3) management (use of various means for activating the educational and cognitive activity of those who study);
- 4) control (current control (on the basis of received information on the course of educational and cognitive activities of those studying);
- 5) regulation (establishing correspondence between the activities of the learner and the target;
- 6) coordination (establishing the correspondence between achieved and expected results, definition of further actions).

Thus, in the context of the educational process, the didactic triad of "learning - teaching-management" in relation to its components appears as a dynamic entity that should undergo innovative innovations that, realized in the fields of the activity of the learner and the trainer, will serve the effective functioning of the triad "learning - teaching - management" as a whole.

Innovative novations for the functioning and development of the didactic triad "learning - teaching - management" as a whole. Didactic triad "learning - teaching - management" is the only whole characterized by the course of two processes:

- 1) the process of functioning (maintaining the achievement of the achievement of the moment when the processes characterizing the achieved in the didactic triad "learning - teaching - management" as a whole, the ascending and descending stages of the didactic triad "learning - teaching - management" as a whole, are in a state of relative equilibrium);
- 2) the development process (the conclusion of the didactic triad "learning - teaching - management" as a whole to a new level of functioning).

In the course of the study, author's works (hereinafter - innovative author novations) were introduced into the components of the didactic triad "learning - teaching - management" and the process of functioning of the teaching method on the new level of its development and functioning was investigated.

Innovative author novation in the structural component of the "teaching" triad envisaged the introduction into the scientific circle of the concept of "inter-institutional integration" (T. Miier's author's works) and the application of the "inter-institutional integration" approach for the effective organization of teaching, that is, the activities of the trainer, process of direct informational and educational influence on the learner.

The concept of "inter-institutional integration" was introduced into scientific circulation on the notation [3; 6]:

1) the combination of different types of activities in the integrity, characterized by the words "ordering" and "interpenetration", becomes an expression in the full and partial combination of different activities among themselves and is called "complete interagency integration" and "partial inter-institutional integration";

2) the process leading to this state;

3) the result obtained on the basis of a combination of different activities among themselves;

4) approach as a way of treating the state, process or result of a certain pedagogical (didactic) phenomenon.

The full interactive integration involves modeling the educational process by those who teach, on the basis of interpenetration of one type of activity of those who study, in the background of another type of activity. Examples of realization of full intersessional integration can be the organization of educational process based on:

- *teaching and research task*, which are the result of a combination of educational activities and research activities is treated in such a context, "specially created learning situation, which is a series of interrelated educational problems, acquiring the best form of structural units of teaching material (exercises, problems, didactic games, educational projects, experiments, observations, excursions, practical work) contain the necessary accompanying educational information (questions, orders, instructions, algorithms, methods of action etc.) Contribute to cognitive independence of students and their interaction with other participants in the educational process and direct the actions of learners towards formulation intermediate and final conclusions in order to open the subjective knowledge and new ways of action "[3, p. 148];

- *educational excursion task*, which is the product of a combination of educational activities with excursion activities and is interpreted as a "specially created educational situation, which is a series of interconnected mini-tasks, the consistent solution of which is carried out during the excursion activities using the accompanying educational information (questions, regulations, instructions, algorithms of methods of action, etc.), involves a manifestation of cognitive activity of those who study, in a different way of learning (the doctrine "I teach myself", the teaching "I teach others" , teachings "teach me others", studying in mutual learning), which is aimed at formulating interim and final conclusions of activity "[6, p. 69].

Partial interdisciplinary integration becomes an expression in the modeling of the process of organizing one type of activity in another type of activity at the level of a particular stage of the activity of those who study. In this case, the organization of the activities of those who study can be carried out in the following sequence: those who study, are involved in the identification of the problem (contradiction); apply well-

known knowledge and methods of action to solve the problem (overcoming the contradiction); formulate assumptions about the method or result of solving the problem (overcoming the contradiction); consistently perform actions to identify the truth or falsity of the supposed assumption; formulate conclusions based on the received data.

Innovative author's novation in the structural component of the triad of "management" provided for the introduction into the scientific circle of the concept "eco-inferential approach" (author's works L. Holodiuk). Introduction to the scientific circulation of this notion is made on the notation [7; 8]:

1) a scientific position on the organization of the activities of those who study, on the basis of purposeful harmonization of the influence of age and life crises;

2) the practical realization of ecologization as the orientation of the one who teaches to minimize "life crises" experienced by those who learn or one who learns, due to special occasional circumstances that have become deployed on the personal, interpersonal or social levels, are found in a family circle or in a group of learners;

3) flexible introduction of integration and differentiation in order to mitigate the course of age and life crises.

According to the L. Holodiuk author's work [7; 8], the application of the eco-differentiation approach serves to interpret the results of constant movement and exchange of information between those who teach (the subject of management) and those who learn (management objects). This becomes possible because the information received as a means of communication between the participants in the educational process and the environment contains a set of information necessary for the knowledge and assessment of the state of the educational process on the basis of determining the presence or absence of age attributes (the conventional name of the transitional stages from one age a gap to another period of development of the learner) and life (any devastating event of life that causes the loss of important relationships and social status requires an adjustment that can threaten integrity of the person and social relations) crises. The receipt of the given data provides the trainer with complete information on how it is expedient to organize the educational process in the conditions that are revealed.

L. Holodiuk [7] notes that within the limits of both the age crisis and the life of those who learn, there are:

1) a decrease in the success;

2) diminishing interest in the educational process of education;

3) general decline in disability;

4) unexpected forms of protest against actual or imagined pressure from those who teach.

In the case of the behavior of those who learn, the signs of age and (or) life crises, the development of educational and cognitive activity is carried out with the domination of integration, that is, their association in a comfortable for the interaction of the group of their choice, which is indirectly controlled by those who teach, because of the complexity of the content of the proposed tasks, and their own desire for those who learn, to develop the ability of others ("I can and I want to help the other (others)").

In the absence of the behavior of those who learns signs of age and life crises building educational and cognitive activities carried out with the dominance of differentiation. This is realized as a conscious choice for those who are studying, one of the types of differentiation, in particular, differentiation according to a different way of expression of cognitive activity ("I want"); differentiation on the desire to develop their abilities ("I can"); differentiation on a different means of cognitive activity and a desire to develop their abilities ("I can and I want").

Consequently, innovative author's novations by L. Holodiuk are implemented at the level of management and serve the flexible introduction of integration and differentiation in order to mitigate the course of age and life crises that can be experienced by those who learn.

Innovative author's novation in the structural component of the triad of "learning" was:

- the development of teaching methods "I teach myself, teach me others", "I teach others", "study in mutual learning" in view of the functioning of the local educational and information space of interaction of participants educational process;

- development of a layout of a common table-matrix of the organization of educational process with the observance of the triad "learning - teaching - management" (Table 1);

- the development of a table of matrix of problematic teaching material, a table of matrix for the implementation of part-search teaching materials, a table of matrixes for the organization of the activities of those studying while conducting self-study work (author's works by T. Miier) [3].

Use of the specified item (Table 1) was carried out with the aim, firstly, to emphasize the attention of those who teach on the possibility of applying different methods of teaching students; and secondly, the management of the process of the simultaneous stay of those who learn in different ways of learning; thirdly, the implementation of managerial actions aimed at knowledge and assessment of the state of the educational process in order to establish the presence (absence) of signs of age and (or) life crises and the flexible introduction of integration and differentiation in order to mitigate their course, that is, practical implementation of the eco-differentiation approach (innovative author's novation by L. Holodiuk), etc.

Table 1 Layout of the general table-matrix of the organization of educational process with observance of the triad "learning - teaching - management"

<i>Teaching is the activity of the person who teaches</i>	<i>Learning is the activity of the learner</i>	<i>Management is the activity of the person who teaches</i>
<p>Applying the "inter-institutional integration" approach in the case of organizing the activity of the learner, whose name indicates two (three) activities (for example, educational-excursion, project management, educational-research, educational-cognitive, etc.). The application of the "interdisciplinary integration" approach serves as a basis for defining the didactic foundations for organizing the educational process on the basis of a complete or partial combination of different activities among themselves; definition of different ways of teaching students.</p>	<p>Organization of study taking into account:</p> <ul style="list-style-type: none"> - ways to implement it ("I teach myself", "I teach others", "I am taught by others", "learning in mutual learning"); - number of those who learn (individual, pair, group, intergroup); - expression of cognitive autonomy and interaction with others. 	<p>Implementation of management functions:</p> <ul style="list-style-type: none"> - Planning (goal setting, content definition, didactic toolkit); - organization (organizing the educational process in accordance with the planned and taking into account the results of the application of the eco-differentiation approach, that is, the establishment of the presence or absence of signs of age and (or) life-threatening crises; - management (use of various means to enhance the learning and cognitive activities of those who learn, including the flexible introduction of integration and differentiation in order to mitigate the course of age and life crises experienced by those who learn in the event of signs of crises); - control (current control (on the basis of received information about the course of educational and cognitive activity of those who learn); - regulation (establishing correspondence between the activities of those learning and the purpose); - coordination (establishing the correspondence between achieved and expected results, definition of further actions).

The results of the study showed that success in learning by those who learn, prompted them for active learning and cognitive activity, and the expressive experience of the sense of cognitive growth generated a positive attitude to the course of the educational process and its results. Using innovational author's novations, L. Holodiuk and T. Miier served as a model for the educational process with a clear thought-out as the implementation of the components of the didactic triad "learning - teaching - management" and the organization of the educational process, during which the mentioned triad was a new integral representation reflecting the activities of those who learn and those who teach in interdependent influences.

The results of the study suggest that the modeling and organization of the educational process with the adherence to the didactic triad "learning - teaching - management" contain significant potential for significant growth in the educational process of the indicators of effective self-realization of the learners and those who teach.

CONCLUSION

Educational process – is a social formation, the quality and effectiveness of which significantly affects the personal and social progress.

The educational process is a dynamic social entity that sensitively reacts to the results of scientific research in various fields of science, including philosophy, psychology, pedagogy, didactics, technological sciences, etc.

Educational process is realized on the basis of the interrelated activity of those who learn with those who teach.

Active activity of those learn is ensured by the organization of an educational process, which is preceded by a clear reflection on the implementation of each of the components of the "learning-teaching-management" triad and the prediction of the operation of the triad as a whole.

The effectiveness of the organization of teaching as the activity of the one who teaches, in order to provide a process of direct informational and educational influence on the learner, increases significantly in the case of the implementation of the "interagency integration" approach, which provides a full and partial combination of different activities among themselves.

The effectiveness of the organization of management as a permanent movement and information exchange between those who teach (the subject of management) and those who learn (management objects) is ensured by the implementation of the eco-differentiation approach as a means of organizing the activities of those learning, based on purposeful harmonization of the influence of age and life crises (in case of their manifestation) by the flexible introduction of integration and differentiation.

The effectiveness of the organization of study is ensured by the practical realization of the triad of "learning - teaching - management" as a single whole creative application of the layout of the general table-matrix of the organization of educational process with the observance of the triad "learning - teaching - management", the table of matrix problematic presentation of educational material, the matrix of the implementation of part-search teaching material, the table-matrix of the organization of the activities of those who learn, while conducting self-study work.

The professional development of the person who teaches is a continuous improvement of professionally meaningful competences; creative self-realization in the educational process, reflection of its course and results; constant self-development, self-training and self-education on the basis of active and qualitative work with their inner world.

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