

# PROFESSIONAL EDUCATION

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## THE METHODOLOGY OF DIDACTICS AS A BASIC INVARIANT OF THE THEORY OF PROFESSIONAL EDUCATION

*We characterized the methodology of modern didactics as a basic invariant of the theory of professional education in the process of analysis of the general scientific, activity and individual-oriented approaches. The special features of the system and synergetics approaches are defined, theoretical aspects of activity, praxeological, humanistic, cultural, axiological, subjective, akmeological and competent approaches considering studying the problems of professional education are determined.*

**Keywords:** methodology of didactics, the theory of professional education, general scientific, individual-oriented, activity methodological approaches.

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## МЕТОДОЛОГІЯ ДИДАКТИКИ ЯК БАЗОВИЙ ІНВАРІАНТ ТЕОРІЇ ПРОФЕСІЙНОЇ ОСВІТИ

*Охарактеризовано методологію сучасної дидактики як базовий інваріант теорії професійної освіти в процесі аналізу загальнонаукових, діяльнісних та особистісно-орієнтованих підходів. Визначено особливості системного і синергетичного підходів. Висвітлено теоретичні аспекти діяльнісного, праксеологічного, гуманістичного, культурологічного, аксіологічного, суб'єктного, акмеологічного і компетентнісного підходів до вивчення проблем професійної освіти.*

**Ключові слова:** методологія дидактики, теорія професійної освіти, загальнонаукові, особистісно-орієнтовані, діяльнісні методологічні підходи.

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## МЕТОДОЛОГИЯ ДИДАКТИКИ КАК БАЗОВЫЙ ИНВАРИАНТ ТЕОРИИ ПРОФЕССИОНАЛЬНОГО ОБРАЗОВАНИЯ

*Дана характеристика методологии современной дидактики как базового инварианта теории профессионального образования в процессе анализа общенаучных, деятельностных и личностно-ориентированных подходов. Определены особенности системного и синергетического подходов. Освещены теоретические аспекты деятельностного, праксеологического, гуманистического, культурологического, аксиологического, субъектного, акмеологического и компетентностного подходов к изучению проблем профессионального образования.*

**Ключевые слова:** методология дидактики, теория профессионального образования, общенаучные, личностно-ориентированные, деятельностные методологические подходы.

Every science, including theory of professional education has its own methodology, which is a means not only of theoretical knowledge, but also of practical transformation of the learning process, its improvement and optimization. Methodology is a doctrine of construction principles, forms and methods of scientific cognition of the didactic process. Methodological provision of the theory of professional education grounds on defining regular relationships of the studied objects, complex of ideas, values, principles, theoretical knowledge and statements that are necessary and sufficient to substantiate its logic, structure, program, technologies, system of methods and means.

Philosophical level of methodology is based on the principles of the dialectic transformation of quantitative changes into qualitative new forms of an individual, correlation between a phenomenon and a cause, specific and abstract, contents and a form, essential and appropriate, empirical and theoretical, general, special and individual, necessary and accidental as a determinant of appearance, formation and development of didactic processes and studied phenomena. By establishing a relationship, interaction, correlation of didactic phenomena that are reflected by the above mentioned categories, we can determine the essential connections for learning process.

The methodology of science is determined according to the interdisciplinary contents of the theory of professional education, that has direct and indirect relationships with didactics, general, developmental, pedagogical psychology, general and professional pedagogy, history of pedagogy, pedagogy of school and the theory of professional pedagogical training. The research results in various scientific fields provided an opportunity to study the methodology of didactics as a basic invariant of the theory of professional education, taking into consideration their current level of development.

**The objective of this article** is to characterize the methodology of didactics as a basic invariant of the theory of professional education in the process of analysis of the general scientific activity and individual-oriented approaches.

Methodological approaches that provide its focus on the formation of educational and cognitive activity of subjects of learning are used in modeling and organization of educational process at different types of professional higher educational institutions.

Systematic and synergetic approaches belong to general scientific methodological ones, that are often used in research of the problems of professional education. Among individual-oriented approaches are the following ones: activity approach, praxeological, humanistic, cultural, axiological, subjective, akmeologic and competence.

Conceptions of integrity and systematic character of pedagogical phenomena and processes are reflected in the works of S. Arhangelskiy, Y. Babanskiy, V. Bepal'ko, F. Koroliyov, N. Kuzmina. F. Koroliyov stated, that pedagogical phenomena belong to complex systems and have such features as integrity (subordination of all the parts of complex system to general purpose), the influence of changes of one parameter on the other ones, the necessity of scientific substantiation of such systems supervision [2]. Y. Babanskiy emphasized that it is necessary (for the methodology of the pedagogical research and during the study of pedagogical phenomena) to apply the systematic and structural approach, the essence of which lies not in the study of the sum of the components of the phenomenon, but in the analysis of «segmented» integrity [5, p. 24].

Close to the problem of systematic approach are questions of the integrity of professional pedagogical training as a system object, that should be studied by means of structural and functional analysis. This provides an opportunity to develop the holistic integration models, identify basic functions, elements, components, their relationships and attitudes, system forming factors and functional conditions in their static and dynamic aspects.

Modern scientific field, built on the ideas of world's systematic integrity (synergetic approach) is the self-organizing theory. It has been investigated by foreign and Ukrainian scientists such as I. Prygozhyn, P. Anokhin, V. Budanov, A. Dobriakov, S. Kulnevych, A. Rudenko etc.

Synergetics explores uneven, complex and open systems that are in a state of instability, in constant self-development due to the ability to superstructure of new features, self-organization. It also studies the extent of the interactions «human-society», «human-himself/herself», «human-activity», as dynamic environment generates the problem of its self-government in the conditions of nonlinear development of the world, and the subject has the opportunities to make an own choice of the most optimal way.

Based on the principle of synergetic approach we state that the professional and personal development of a future specialist cannot be considered as a gradual, linear, conflict-free process, since it is surely accompanied by contradictions that cause a restructuring of value orientation, self-cognitive and self-educational activity.

In understanding the nature of the problem of professional education methodology activity approach, that reflects the ideas of materialistic dialectics in the Ukrainian psychology and pedagogy science, also including didactics of the Soviet period is of great importance. The activity theory is

reflected in the works of L. Vygotsky, P. Galperin, O. Leontiev, S. Rubinstein, N. Talyzina, G. Shchukina etc. Later it was further developed by V. Davydov, P. Elkonin, V. Laudis, M. Skatkin etc.

S. Rubinstein defined an individual principle of activity, the statement of activity human nature in the light of the idea of subjectivity, characterized activity as a manifestation of the subject's activity in its system of social relations that have specific historical character in the diversity of relations between the person and the world that detects and forms human mind and promotes development. Dialectics of the human psychic relation to its activity lies in object-activity and subject-conscious correlation of a concrete subject with others, with the products of subject's activities and relationships that determine it. That is why a person as a subject reveals higher level of activity, integrity, autonomy and becomes the creator of his/her own fate, and his/her activity is always meaningful, independent, creative and human inherent.

G. Kostiuk found a dynamic connection between processes of internalization and exteriorization as conversion of the internal into the external and vice versa, which he linked with the objectification of the subjective human's world and its transformation, emphasizing the consciousness of the activity process, and understanding its social significance. In the structure of human activities the scientist pointed out the following components: awareness of goals, the presence of motives, objects, methods of actions and operations, communication, intermediate and final results [3].

Methodology of the activity approach is widely used in modern researches of professional pedagogical training. Despite the fact that the definition of the essential aspects of qualitative professional pedagogical activity on the basis of methodology of the activity approach has considerable heuristic resources for researches in the pedagogical competence, for its implementation at higher educational institution there are such contradictions: 1) mastering the professional activity is ensured only by means of study work; 2) forms of organization of educational and perceptual activity are often inadequate to forms of activity being learned; 3) the structure of educational perceptual and professional activities (a need, a motive, a goal, an objective, means, actions and operations, a result) and their functional relations are the same, and semantic content of the corresponding levels is fundamentally different.

The essence of the praxeological approach, which is the projection of the activity one, lies in study of scientific organization and effective management of activity.

The principles of the general laws of perfect activity which depend on many conditions and factors that do not assume uniformity are of great importance in theoretical praxeology. Moreover, praxeology expands the terminology of apparatus of the activity theory, enriches it with practical elements. According to scientists-praxeologists, the work effectiveness, first of all, depends on prior accurate preparation for its performing, which lies in action preparation, development of actions plans (their deliberateness, feasibility, sustainability, accuracy, flexibility, duration).

In understanding the technological feature of pedagogical activity the conclusions made by T. Kotarbinskiy [4] and T. Pshcholvskiy [6] about the act as a «mechanistic set, multiplication of simple work» and «qualitatively new, cooperative, organized», about readiness of the act in the broad sense, that encompasses mastering knowledge, conscious choice of means and methods, about the criteria of emotional and practical results evaluation (accuracy, efficiency, dexterity, diligence, rationality), about the positive and negative cooperation (the last is a struggle in the praxeological sense) about conscious action in correlation to the volition and optimality of performance of made solutions are of great importance.

On the basis of the analysis of the activity methodology, the management theory, the general system theory, the general regularities of the pedagogical process originated the concept of the educational process optimization (Y. Babanskiy) and of the scientific organization of teacher's labor (I. Rachenko). The optimization theory directs a teacher to comprehensive study of the learning process, its various aspects, and requires the consideration in the unity of all the objective and subjective factors, the ability to «see» the dynamics of the educational process. Significant methodological importance for the theory of professional education belongs to the dialectical statement of true concreteness, of the necessity to distinguish the main point in the activity. Optimization methods involve holistic, conscious choice and construction of the most rational and effective in this situation variant of the organization of educational process on the basis of the systematic approach.

However, a weak point in the optimization theory is that it focuses on the formation of intellectual actions and doesn't give details when it gets to highlighting the elements of the motivational sphere of an individual, reflexivity of the pedagogical thinking, associated with the projection, formation of a hypothesis, an idea, a plan, tasks nomination, «playing» the planned teaching situations in mind.

Implementation of praxeological ideas concerning the organization of teacher's activity (V. Bospalko, V. Bondar, M. Levin, V. Slaktionin, A. Piekhota, A. Pitiukov, N. Shchurkova et al.) is realized according to the technological approach to professional pedagogical activity and preparation for it. The peculiarity of the technological approach lies in the fact that the sphere of the pedagogical activity can not be characterized by a distinct subject field, uniqueness of functions, separateness of professional actions from personal and subjective parameters. Besides, the remoteness and variability of the results of educational activity cannot provide its precise prediction and modeling. The basis of any learning technology is the problem of defining goals and aim orientation of study. Hierarchical classification of a goal ensures efforts concentrations on the principal point in activity, determination of priorities and prospects for future work, creates the opportunities for guiding explanations to the students as to study work, assessment standards of learning results.

Reliance on praxeological approach allows the teacher to see the whole system of pedagogical activity in the form of the complete technological cycle from the goal to its results, applies algorithms of consistent purpose oriented and effective actions, and also uses them in variety. In such a praxeological sense technological feature is an inherent attribute and a special management object in the process of teacher's professional training.

The activity theory at the present stage of science development is undergoing transformations, and an increase in attention to individual parameters of the subject of the activity, his/her internal activity.

A priority task of humanistic pedagogy is assistance in the formation of and improvement in the integral personality, which independently forms an own experience, strives to realize maximum of his/her potential, is capable of conscious and rational choice of decisions in various life and professional situations. Teacher's consolidation as an active subject of the educational process is the key principle in understanding the pedagogical essence of his/her humanization and determination of the main approaches to practical implementation.

As a scientific direction in pedagogy the humanistic approach was formed in the 1950<sup>th</sup>–1960<sup>th</sup> owing to the works of the Ukrainian and foreign psychologists and pedagogues-humanists R. Burns, Maslow, J. Allport, Rogers, W. Sukhomlynsky, V. Frankl, Fromm, K. Horney, etc, the experimental experience of the representatives of cooperation pedagogy such as S. Amonashvili, Y. Ilyin, I. Volkov, I. Ivanov, V. Shatalov, M. Shchetinina et al. The humanistic approach in pedagogy involves a valuable attitude to a human, recognition of his/her development as the prominent task of education and upbringing. And the formation of unique personality is treated as the main result, which is achieved through freedom and creativity of a teacher and pupils in choice of means, methods and forms of teaching and learning, in providing opportunities for an individual concerning self-determination, self-organization, self-realization.

The essence of educational activity in the context of humanistic approach involves its improvement through the prism of personality structures of pedagogical consciousness, which provide on the reflexive basis an active reinterpretation of all components of the pedagogical process, the content of own activities and subjective conditions, learning and perceptual activities of students on the basis of self-organization of a learning process. Thus, the ideas of humanistic approach in professional teacher training and his/her activity should be understood as a strategic goal, professional credo, values orientation, aimed at harmonizing the relationships between the subjects of pedagogical process and their creative self-development.

In modern psychological and pedagogical researches the cultural approach that allows us to cover all main characteristics of the process or of the studied object is more widely used. In this case, culture is seen as historically determined level of social development, creative powers and human abilities, that is reflected in the types and forms of life and human activity organization.

As the teacher is always in a situation of moral, ethical, and ideological choice, evaluation and management of pedagogical circumstances and situations, setting goals and tasks, finding means of their achievement, decisions making and their realization, so a statement of organic connection

between the culture and the system of professional training of teachers for pedagogical activity is methodologically important.

In psychological and pedagogical literature teaching culture is characterized as an expression of the essential spiritual and creative personality characteristics, of professional activity and teacher's communication (A. Barabanschikov, G. Belousova, T. Ivanova). Based on the methodological foundations, I. Isayev offers a 4 components model of professional pedagogical culture with the following structural components: axiological, technological, creative, and personal [1]. V. Slaktionin connects the implementation of cultural approach to pedagogical education with a possibility of overcoming trends in development of impersonal, abstract formal pedagogy, and the formation of teacher's professional culture the scientist considers to be the most important object of scientific knowledge and organizational management decisions [8, p. 17].

Axiological approach realization involves the formation of the uniqueness of relatively stable values of pedagogical activity, the mastering of which provides their transformations in their individual meaningful ones. Axiology as a science of values serves as a guide and regulator of pedagogical processes and pedagogical activity, forms a personal attitude to them.

Psychological and pedagogical aspects of the individual values formation and values orientations, his/her new forms are reflected in the works of B. Ananiev, I. Bekh, L. Bozhovych, A. Kyrychuk, A. Leontiev, B. Suhomlynskiy. Among foreign scholars that research the problems of values oriented upbringing, the works of G. Gordon, A. Coombs, A. Maslow (the concept of humanistic psychology), G. Brunner, B. Woodworth, A. Clark, J. Kelly (cognitive theory), T. German, B. Skinner, G. Hind (neobehavioral theory) are well-known.

The axiological approach gives an opportunity to analyze the process of readiness formation for pedagogical activities through the determination of the teacher's values attitude to the content and results of his/her own activity, professional roles and positions. Subjective perception and mastering pedagogical values are determined by the level of development of pedagogical thinking, by the presence of a personal pedagogical activity system. In the process of professional training the future teacher actualizes first of all those values that become necessary for him in professional sense. On this basis, «I – professional» as a set of goal, ideas, principles that adjust an individual experience, beliefs, professional attitudes, regulate educational activity in the mind is formed in mind.

A modern approach to the value bases formation of pedagogical activities as benchmarks and regulators is associated with the prospect of axiologization of professional pedagogical training. It can provide a shift in the accents from external aspects of the management process of becoming a professional teacher to internal factors of intensification of the value-sense sphere, self-organization of the educational and perceptual activities of the students of pedagogical higher educational institutions.

The essence of the subjective approach in pedagogical theories is reflected and defined in such terms as «activity», «independence», «initiaveness», «creativity». The important in the psychology of creativity phenomena are «I – professional», self-identity, self-development, intuition, creative inspiration, mechanisms and structure of creative processes, creative qualities and abilities of personality, talent. (A. Brushlynskiy, V. Molyako, V. Semychenko, V. Romanetz, V. Rybalko V. Tatenko etc.). In the theorists writings and practitioners of pedagogy of creation actual is finding ways of the creative personality formation, his/her focus on finding new, non-standard in all spheres of human activity, the development of creative possibilities with the help of special technologies (D. Bogoiavlenska, N. Kichuk, S. Lvova, A. Piekhota, S. Sysoeva R. Shakurov, T. Shamova et al.).

In many psychological and educational researches an important prerequisite of student's subjectivity is defined as ability to point out a personal «I — professional», to contrast him-/herself as the subject to objects of his/her influence, to think over his/her actions and thoughts, to discover new, non-standard in different types of pedagogical activities. Subject sense of professional activity of the future teacher requires activity, the ability to manage, regulate his/her behavior and actions according to the defined tasks.

An important role for research of teacher's professional education problem lies in statements of akmeology that studies the regularities and mechanisms of human development at the stage of maturity, achievement the highest levels of development by a human. Moreover, akmeology explores the issue of organization of the future specialists training concerning improvement and correction of

the professional activity, provides control of individual professional development of a future teacher, and directs it to constant self-improvement and the ability to self-organization.

Methodological guidelines of akmeological approach found the explication in the works of K. Abulkhanova-Slavska, O. Bodaliyov, A. Derkach, M. Kuharieva, A. Markova et al.

Akmeological approach provides teacher's individuality development through organic unity of the processes of professional education, socialization, self-upbringing and self-development. This means that not only developmental environmental conditions (being only a prerequisite of personal transformation) favor the professional development of teacher's individual, but also the teacher who has to become an active personality that is critical to himself and the environment, is in the constant process of self-cognition and self-improvement. The specialist must constantly see him/herself to be a real subject of professional activity, make a significant result that opens new prospects for him/herself and for other people.

Akmeology focuses on the productivity of the professional activity of a personality in the form of creative achievements, social recognition and personal success at different age stages of life activity. The main task of akmeology is the development of means of self-improvement and professional development to higher level of mastery.

The new concepts of pedagogical education, that are built on humanistic basis involve the implementation of the competence approach, targeting on the unique individuality of each student in the content, technologies of teacher training (N. Bibik, I. Zimnyaya, V. Kraievskiy, A. Markova, O. Pometun, O. Savchenko, A. Khutorskiy et al.). It helps to overcome the traditionally prevailing mass-reproductive teacher training, to direct it to the personal level.

Implementation of the competence approach allows to transform goals and content of education into the subjective achievements of a student, that can be objectively measured. Perspective of the competence approach is in the fact that it involves a high degree of readiness of the intending specialist for successful pedagogical activity, provides activation of the mechanisms of general and professional self-development of a student and requires consideration of motivation, its dynamics in the process of professional training, education, organization of self-motion to the final result. That's why the main objective of the competence approach is in formation of conditions for self-organization of activity and personality of an intending teacher, defining and developing his/her creative abilities, formation of a personal pedagogical attitude, a unique pedagogical technology.

An important problem of practical implementation of the competence approach is the definition of the hierarchy of competence. The system of the competences is formed by a «over-subject», general subject and special subject competences. The main features of the key competences include multifunctionality, over subjectivity, interdisciplinarity, multicomponents, directing to the formation of critical thinking of reflection, determination of its personal position.

Methodological focus on competence approach is productive and therefore leading in the study of the problem of the quality of the professional teacher's activity, since it can be used effectively as for a scientifically substantiated process of management of professional teachers training, as well as for analysis of the teacher's practical work, his/her certification, and as for the creation of appropriate scientific and practical tools. Recognizing the significant methodological possibilities of the competence approach on should take into consideration the reasons that do not allow the key competences to be fully «put» into practice.

Thus, the described philosophical and didactic principles are methodological landmarks of research of the problem of professional training of the intending teacher for pedagogical activity. Despite the «strong» and «narrow» aspects of the presented approaches, they have strong search capabilities for the professional education research. Naturally, multistructure of the object, which a professional education is, cannot be limited by any conception about it. Only a complex combination of ideas, requirements, and statements of different methodological approaches gives a prerequisite for understanding the nature, content, functions and structure of professional training, development of training models of the future teacher for professional activities.

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### FORMATION OF VALUABLE ATTITUDE TO FUTURE CAREER IN AGRICULTURAL UNIVERSITY STUDENTS

*The article presents the basic principles of scientific research about the formation of agricultural university students' evaluative attitude to the future career. The contents and the features of the «evaluative attitude to future career» are presented together with the concept, criteria, indicators and levels of defined quality, complex of pedagogical conditions that have become the basis for forming evaluative agricultural university students' attitudes to future careers are presented. Based on the results of experimental verification, the efficiency of this method and the possibility of its application in the educational process of higher agrarian education are defined.*

**Keywords:** *evaluative attitude, criteria, indicators, pedagogical conditions, methodic.*

Н. А. ЛЕБЕДЕВА

### ФОРМУВАННЯ ЦІННІСНОГО СТАВЛЕННЯ СТУДЕНТІВ АГРАРНИХ ВИЩИХ НАВЧАЛЬНИХ ЗАКЛАДІВ ДО МАЙБУТНЬОЇ ПРОФЕСІЙНОЇ ДІЯЛЬНОСТІ

*Представлено базові засади наукового дослідження проблеми формування ціннісного ставлення студентів аграрних ВНЗ до майбутньої професійної діяльності. Подано зміст та ознаки поняття «ціннісне ставлення до професійної діяльності», критерії, показники та рівні означеної якості, комплекс педагогічних умов, що став основою створення методики формування ціннісного ставлення студентів аграрних ВНЗ до майбутньої професійної діяльності. На основі результатів дослідної перевірки встановлено ефективність цієї методики та можливість її застосування у навчально-виховному процесі вищої школи аграрного спрямування.*

**Ключові слова:** *ціннісне ставлення, критерії, показники, педагогічні умови, методика.*

Н. А. ЛЕБЕДЕВА

### ФОРМИРОВАНИЕ ЦЕННОСТНОГО ОТНОШЕНИЯ СТУДЕНТОВ АГРАРНЫХ ВУЗОВ К БУДУЩЕЙ ПРОФЕССИОНАЛЬНОЙ ДЕЯТЕЛЬНОСТИ

*Представлены базовые принципы научного исследования проблемы формирования ценностного отношения студентов аграрных вузов к будущей профессиональной деятельности. Поданы содержание и признаки понятия «ценностное отношение к профессиональной деятельности», критерии, показатели и уровни обозначенного качества, комплекс педагогических условий, что стал основой создания методики формирования ценностного отношения студентов аграрных вузов к будущей профессиональной деятельности. На основе результатов опытной проверки установлены эффективность этой методики и возможность ее применения в учебно-воспитательном процессе высшей школы аграрного направления.*

**Ключевые слова:** *ценностное отношение, показатели, педагогические условия, методика.*