Methodological Principles of Didactics Ddevelopment in Educational Activity of Higher Eeducation Institutions

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Summary
The article determines that the study of the development of scientific and didactic knowledge about the educational process in higher education should be built mainly on the basis of qualitative research methods that ensure the identification and understanding of the changes taking place in didactic knowledge, in the unity of their internal and external manifestations. On the basis of the epistemological model of the study of science, a generalized model of didactic knowledge about the educational process in higher education, including didactic relations as a theoretical core, subject of research, research methods and positions of researchers, ways of interaction between science and educational practice, and thematic structures of didactic knowledge; scientific and methodological problems of didactic knowledge about the educational process in higher education at the present stage of its developments due to the post-nonclassical transformation and orientation of research towards the humanitarian ideal of scientific character.

Key words:
Innovative teaching, Higher education, Teaching technology, Information Technology.

1. Introduction

At the present stage of development of society, higher education largely determines the prospects for the development of the country. The importance of universities in socio-economic life dictates new requirements for the quality of higher education. Contributing to their achievement changes in higher education associated with the Bologna process, the transition to level education, the spread of informatization of educational process. The number and scale of the ongoing changes make the field of higher education a subject of interest for scientists specializing in various fields of scientific knowledge. In the studies of psychologists, philosophers, sociologists, economists, it is noted that the educational practice of higher education today is in conflict with the existing scientific representations and needs generalization, theoretical description, evaluation and scientific forecasting. The central link, the basis of the activity of any university is the educational process. Achieving a new quality of higher education, corresponding to the requirements of the time, is associated with a rethinking of the theoretical foundations of its design and implementation. Researchers fix negative phenomena in the practice of the modern educational process, which are manifested in a decrease in the degree of involvement of students and teachers in it, in a change in the nature of their interaction, show that more and more teachers today are faced with professional difficulties, declare their unpreparedness for the changes taking place in the educational process. Under these conditions, the problem arises of understanding, scientific understanding of those changes that affect the essential characteristics of the educational system, determine its direction, quality, effectiveness [2-5].

In pedagogical science, the study of the educational process is carried out within the framework of didactics. Didactic knowledge implies a plurality of descriptions, it is heterogeneous and objectively exists in various forms. We can talk about the existence of everyday practical knowledge, which is the result of a spontaneous empirical reflection the educational process in the university, and scientific and theoretical didactic knowledge that appears as a result of scientific research. Scientific and didactic knowledge is a part of scientific and pedagogical knowledge, it has the same features, due to two functions of pedagogical science: scientific and theoretical ("knowledge of what is") and constructive and technological ("knowledge of what should be"). In scientific and didactic knowledge, as well as in scientific and pedagogical, one can distinguish different forms of the existence of knowledge - methodological, theoretical, normative, methodical, practical.

Manuscript received February 5, 2022
Manuscript revised February 20, 2022
https://doi.org/10.22937/IJCSNS.2022.22.2.50

The range of tasks of didactics is usually designated as the main didactic issues related to understanding the goals of education, its content, organizational forms, methods, means, principles of training. The changes taking place in educational practice contribute to the accumulation of didactic facts and the construction of theoretical generalizations, which leads to the intensification of research in the field of didactics and actualizes the need to understand the essence, stages, trends in the development of didactic knowledge about the educational process in higher education. Interest in scientific and didactic knowledge is due to the fact that without relying on the results of didactic research it is impossible to make significant changes.into the educational process of universities, they will either be formalized and absorbed by tradition, or doomed to a long journey of trial and error. This position defines the essence of the problem situation and allows us to set the task of comprehending the development of didactic knowledge about the educational process in higher education, on the one hand, to solve the problems of educational practice, on the other hand, to comprehend the positions of didactic knowledge about the educational process in a university in the structure of pedagogical knowledge.

To date, there have been certain scientific prerequisites for theoretical understanding of the process of development of didactic knowledge about the educational process in higher education. Some aspects of this problem are disclosed in philosophical and scientific studies, works devoted to the methodology of humanitarian sciences and methodology of pedagogy, as well as in publications systematizing the achievements of general didactics and scientific knowledge about teaching at the university.

The following set of methods was used in the study: modeling (for the reconstruction of models of didactic knowledge about the educational process in higher education at each stage); periodization method (allows you to determine the stages of development of didactic knowledge about the educational process in higher education, to show their qualitative originality); a set of methods of historical and pedagogical research - comparative and comparative (study, analysis, systematization of philosophical, scientific literature, pedagogical publications, reflecting the development of didactic knowledge from its inception to the current state, comparison, comparison, generalization of facts, research ideas, content analysis), historical-structural (identification of the main basic elements (thematic structures) of didactic knowledge), constructive-genetic (for the development of promising areas of research in the field of didactics of higher education based on the study of the process and results of its development); institutional analysis (used to study the institutionalization of didactic knowledge about the educational process in higher education); methods of pedagogical forecasting (extrapolation method, expert methods, design, staging methods).

The purpose of the article is to reveal the qualitative changes taking place in the scientific and didactic knowledge about the educational process in higher education, to determine the stages and trends of its development and to substantiate the concept of the development of didactic knowledge about the educational process in higher education.

2. Theoretical Consideration

Modern pedagogy does not develop in isolation, it is part of science, in various forms it is connected with other sciences: it uses the ideas, theoretical positions, conclusions of other sciences, their research methods, data, specific results obtained in other sciences, participates in complex research. An analysis of research in the field of pedagogical science of science led to the conclusion that the modern image of pedagogy is characterized by the strengthening of the social and humanitarian function of science. In pedagogical knowledge, the formation of a humanitarian paradigm is taking place, which for our study means increased attention to the research strategies of the humanities, oriented towards interpretive practice, i.e., understanding and explanation.

From the standpoint of the humanitarian approach, scientific and didactic knowledge as part of pedagogical knowledge has all its features: human dimension, axiological, dialogic, etc. Scientific and didactic knowledge focuses on the humanitarian ideal of scientific character, and this determines its main characteristics. This is socio-humanitarian knowledge, it is developing in the conditions of integration of science and educational practice. At the present stage of development, it is characterized by the expansion of intra-theoretical reflection (increased attention to internal problems, the development of research strategies and research methods), the use of both explanatory and interpretive approaches, the need to identify conceptual changes in understanding the essence of the educational process as a socio-humanitarian research object. Scientific and didactic knowledge reflects the processes of differentiation and integration, which actualizes the conduct of research of a scientific nature, designed to describe the development process, clarify the level of organization of scientific and didactic knowledge, etc. This made it possible to choose a research strategy - from understanding the process of formation and conceptual design didactic knowledge about the educational process in higher education to the construction of a holistic image of didactics[7].

The study of the provisions of the philosophy of science made it possible to determine the provisions important for substantiating the methodology of research on

the essence of the development of scientific knowledge as a permanent increase in its content potential - instrumental, categorical, factual, "what reflects and expresses the orientation of science towards a completely fundamental goal: an adequate penetration into the nature of things, a demonstrative assimilation of the truth. Development implies qualitative changes; the transition to a new stage of development occurs as contradictions accumulate between the factual and conceptual basis of scientific knowledge. The study of the periodizations of the development of science, developed in philosophy, showed that there are no common approaches to identifying the periods of development of scientific knowledge.

The periodization of science “according to the dominant type of scientific rationality”, developed on the basis of the natural sciences, is closest to the tasks of our study. In this periodization, the division of the history of science into classical, non-classical and post-non-classical stages is based on a set of criteria that determine the change in the relationship between the object and the subject of knowledge (object, method, philosophical and ideological foundations of science). This approach to the analysis of the historical path of science makes it possible to characterize the development knowledge from different angles: from changing the object of research in the relevant period to the analysis of research methods accepted as an ideal, and to the peculiarities of the philosophical and ideological foundations of science.

The provisions of dialectics underlying our study determined the need to consider the historical development of didactic knowledge as "a complex dialectical progressive process of" manifestation of differences ", which includes a number of qualitative peculiar stages." The basis for highlighting the stages of development of didactic knowledge about the educational process in higher education in the study are the differences in the relationship between theory and practice, which change from stage to stage. The driving force behind development is the contradiction between conceptual and factual basis of scientific and didactic knowledge about the educational process in higher education; the transition to a new stage is carried out when, from the standpoint of existing scientific ideas, it becomes impossible to explain the new scientific facts that have appeared.

In the science of science, the process of development of science is studied on the basis of various theoretical schemes, conditionally called models of the development of scientific research [6].

knowledge: informational, logical, economic, sociological, demographic, political, etc. In each of these models, the question of what is the development of science is solved in its own way - an increase in information flows, the spread of new logical schemes, an increase in the economic efficiency of ongoing research, an increase in the number of scientists as a social group, etc. In our study, the definition of the essence of the development of scientific and didactic knowledge as a process of qualitative changes leading to its conceptual design determines the choice of an epistemological model for studying science as main methodological guideline. From the standpoint of this model, the development of science is the development of its methodology, the improvement of the mechanisms of cognition developed by the didactics of higher education at each stage of its development. Within the framework of the epistemological model, the objects of research work, the main directions of scientific research, the initial positions in conducting research, arising from the state of science, the requirements of science of science and historically established scientific concepts, are studied. An analysis of the concepts of the philosophy of science that arose in the genetic (historical) school and recognizes the dynamics of scientific knowledge, the evolutionary nature of the development of science, made it possible to determine the main philosophical and methodological foundations of the study:

– recognition of the socio-cultural conditionality of the development of scientific knowledge;

- building the logic of studying the formation of didactics: from the search for methodology and its application to the history of didactics to describing the socio-cultural conditions for the development of didactic knowledge at a certain stage;

– substantiation of the characteristics of individual elements of the “paradigm” structure that existed in didactics at different times: samples and ideals science, values, etc.;

– adoption of a non-cumulative model for the development of scientific knowledge and the search for grounds for transformation in changing the ideals of scientific rationality;

- identification of cross-cutting thematic structures that exist in didactic knowledge constantly and change under the influence of intrascientific and sociocultural factors [1-4].

The basis of the research methodology was the provisions of the system-historical approach, which involves considering the process of development of didactic knowledge about the educational process in higher education from the standpoint of comprehending successive changes in the structural elements of scientific and didactic knowledge in time, their transition to a new quality under the influence of external and internal factors. Based on the methods of the system-historical approach (modeling method, periodization method, historical-genetic, etc.), a generalized model of

didactic knowledge about the educational process in higher education was developed in the dissertation, the basis for periodization was established, and the features of didactic knowledge about the educational process in higher education were presented at each stage of its development [5].

The second significant approach for research is the sociocultural approach. On the basis of its provisions in the dissertation, a study was carried out features of the development of scientific and pedagogical knowledge in a broad sociocultural context, the design of didactic knowledge about the educational process in higher education is considered as a sociocultural process, i.e. due to the development of science, culture, society, production, etc. The use of sociocultural analysis made it possible to characterize the conceptual and factual bases of scientific and didactic knowledge, fix the gap between the practice of the educational process in higher education and the level of its reflection in didactic knowledge, as well as identify problems and promising areas of research in didactics of higher education.

The historical and pedagogical orientation of scientific research within the framework of the study required clarification of the methodological guidelines regarding the main purpose of the research work. Among the historical and pedagogical works, it is customary to single out studies of different directions: describing, reconstructing the events of the past; aimed at explaining and understanding the current situation and pedagogical forecasting; focusing on the interpretation of the historical and pedagogical process in the logic of culture; aimed at developing methodological tools for the implementation of historical and pedagogical research. From these positions, the study of the development of didactic knowledge about the educational process in higher education, on the one hand, is guided by the principle of historicism, which states that any phenomenon or process can be explained and understood only on the basis of knowledge about its past, about the stages of its development. Of particular importance here is the establishment of general trends in the development of scientific and didactic knowledge. On the other hand, the historical and pedagogical context of the work itself is not an end in itself, but a means of expanding, deepening the understanding of scientific and didactic knowledge about the educational process in higher education in its current state.

Another significant methodological principle in the work is the principle of evolution, which implies the ability of scientific knowledge to develop, to manifest qualitatively different socio-cultural phenomena and their reflection in scientific and didactic knowledge [4].

Based on the position that modern scientific and didactic knowledge develops, focusing on the humanitarian ideal of scientific character, in which the empirical dependence of some variables on others is not sufficient evidence of the essence, the study is dominated by qualitative methods aimed primarily at identifying and understanding phenomena in the unity of their internal and external manifestations, the predominance of inductive logic in the study (from special cases and their interpretations to the construction of systematic generalizations).

The forms of systematization of the scientific content of didactic knowledge about the educational process in higher education are concepts, principles and technologies (conceptual and technological levels), which are based on the conclusions made in works on general didactics (theoretical and philosophical levels). At the philosophical level, scientific and didactic knowledge is presented in the form of laws and regularities. An analysis of publications shows that by now the didactics of higher education has not yet reached such a level of development that it would be possible to generalize the results of the research in the form of regularities, she still focuses on general didactic ones, concretizing them in accordance with the conditions of higher education. At the theoretical level, the results of research are recorded in the form of holistic theories and approaches, the presence of which in didactic knowledge about the educational process in higher education also, in our opinion, to speak prematurely. Nevertheless, the analysis of the array of publications allows us to fix the fact that theories and approaches gradually begin to take shape and take shape. So, for example, in recent years, the development of the theory of the educational process at the university has been actively going on.and competence-based approach to its organization. At the conceptual level, the results are formalized in the form of concepts. In didactic knowledge about.

The educational process in higher education has accumulated certain baggage, in particular, these are the concepts of problem-based, project-based, modular, contextual learning, the concept of informatization of education in higher education, etc. Scientific results of didactic knowledge about the educational process in higher education.

The school at the technological level is represented by numerous principles, learning systems and didactic technologies (the principle of integrating learning with science and production, the principle of professional orientation of education, the lecture-seminar system of education, the technology for solving educational and professional problems, etc.).

Conclusions

Thus, we can conclude that the tasks set have been completed and a contribution has been made to the study of the problem of the development of didactic knowledge about the educational process in higher education.
Priority directions for the development of the research problem can be related to:
- with the substantiation of modern patterns, theories and approaches, concepts and technologies of education in higher education, taking into account the current situation in society, science and education: globalization and informatization, anthropologization, economic, political, cultural processes in which education is conducted at the university;
- with the search for an answer to the question of what are the mechanisms for coordinating the needs of the innovative economy and the educational needs of the student's personality in modern conditions;
- with the definition of the status of didactics of higher education, its theoretical structure, functions in the system of scientific and pedagogical knowledge, methodological priorities (methodological approaches, research programs and strategies, modern research methods, etc.), with the generalization and systematization of its achievements in the logic of information models of studying a scientific discipline and with the actualization of new problem fields.
The main content and results of the research on the topic of the dissertation are reflected in the following publications.

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