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RESEARCH IS BASED ON VARIOUS FORMS OF SCIENTIFIC EVIDENCE, SPECIFIC SCIENTIFIC CRITERIA

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Annotation: The general laws and principles of pedagogy are the criteria for scientific activity. The analysis of each reality on the basis of psychological and pedagogical laws is a scientific proof of a certain concept. For example, in the analysis of a scientific concept, an approach based on the law of conformity of education to the requirements of the era and existing conditions makes it possible to determine its scientific and practical significance.

Keywords: Pedagogy, general laws, principles, scientific activity, criteria, reality, psychological and pedagogical laws, scientific concept, education.

The research is based on various forms of scientific evidence, certain scientific criteria. Each evidence is valid if it is proven by the rules of epistemological and epistemological knowledge. As is known, “Gnoseology” is a Greek theory of knowledge, a doctrine about knowledge. In the system of “World and Man”, epistemology dealt with the understanding of the world, the dialectics of the relationship between subject and object. First of all, epistemological and epistemological rules are followed in analyzing pedagogical concepts, views and interpreting one’s own idea. In epistemology, thinking is the logic of knowledge, consisting of "knowledge, truth, subject, object, materiality and spirituality, human and computer, emotion and rationality, theory and practice, concepts and categories." Epistemology is the science of scientific knowledge. Epistemology is expressed in categories such as analysis and synthesis, induction and deduction, intuition, and thinking. The fact that scientific evidence is first proven on the basis of philosophical, laws and categories determines the value of scientific research. If the pedagogical process is analyzed with philosophical concepts and views, the level of scientificity will be high. The general laws and principles of pedagogy are the criteria for scientific activity. The analysis of each reality based on psychological and pedagogical laws is a scientific evidence of a certain concept. For example, the approach to the analysis of a scientific concept based on the laws of the relevance of education to the requirements of the era and existing conditions makes it possible to determine its scientific and practical significance. In philosophy, the categories of truth, truthfulness, and principles are the methodological basis for all disciplines, including pedagogical research. As in every discipline, pedagogical research is also based on scientific evidence. Research begins with scientific evidence and is summarized by proving the hypothesis. Scientific evidence depends on the concept of the life experience of the researcher. Scientific evidence can be expressed by logical analysis and information and graphic models. In solving the problems set before him, the researcher begins by collecting and summarizing scientific evidence on the topic. Information and sources are organized, theoretical conclusions are drawn, concepts and categories are defined. Intellectual experience plays a special role in the process of cognition. Supporters of the empirical doctrine, which is opposed to the rationalistic doctrine of intellectual cognition, consider experience, namely intellectual experience, as the decisive factor in research. Prof. D. Shodiev in his doctoral dissertation substantiated the fact that a thought experiment is an effective tool in pedagogical research.

The specific features of scientific evidence:

the ability to see the prospects of social development, and on this basis to develop a continuous educational process and its present and future, practice;

sufficient practical results, examples, comprehensive reasoning, and intellectual analysis for the conclusion;

scientifically based data for the study of pedagogical problems in the current period;

substantiation of any pedagogical research with sufficient practical indicators;

the research result is argumentative in terms of scientific practice, logic, and psychology, etc.

Evidence is a criterion of scientificity. The logical genoseological model of pedagogical research:

compliance of a particular research with general laws of knowledge; the general essence and logical consistency of a particular study; the socio-economic relevance of the study; research categories, etc.

The epistemological model of research is the science of scientific knowledge.

That is, the scientific evidence of scientific research expresses the theoretical essence.

The epistemological model of pedagogical research:

scientific activity, methods of knowledge, research process;

theoretical essence, scientific novelty, value;

subject-object relations in research;

that the individual is a scientific direction;

abstract experiment;

that it is an important component of gnoseology, etc.; Empirical logic of scientific evidence:

that empirical (practical) evidence is the result of experience - evidence of life and special experiments:

typicality of examples, optimality:

the process of experience, etc.

Scientific research is a complex, multifaceted and contradictory process. The researcher conducts research under internal and external influences, and it is not easy to direct these influences to a scientific goal. A person who has mastered the methodology of conducting scientific research, is well aware of scientific methods and can apply them, will achieve his intended goal, will be able to express a significant opinion in the field of science. The main goal of conducting scientific research is to raise the real state of the object to an ideal state. It is the task of a scientist to find effective ways and mechanisms to achieve this goal and offer them to society. The authors urge young researchers to fulfill their duty objectively, and for this, to take a creative position, relying on the methods formed in science. The processes leading up to the choice of a scientific research topic can be called the period of the researcher's "search for himself", "finding his identity". During this period, the researcher is still far from choosing a topic and linking it to a problem. Experience shows that there are almost no researchers who, when taking their first steps into the field of science, find a topic and connect it to a problem. Therefore, when choosing a topic, the help and advice of a specialist who is well-versed in the field of science, research and problems related to the topic is necessary. Since such a specialist is aware of the objective factors that influence the choice of topic, he is also called a "scientific supervisor", "scientific advisor", a "mentor" who teaches how to conduct research rationally.

Objective factors motivating the choice of a topic include:

– the need for social development;

– the need for scientific and technical progress;

– the factor of economic development;

– the need for cultural advancement.

It is an axiom that science serves social development. Therefore, the selected topic must be related to the goals and objectives of social development. Social development means universal human development, preservation and enhancement of universal values, further humanization of

social life, solution of global problems, further increase in the achievements and positive experiences of humanity. Only by serving these goals and objectives do science, the research conducted, and the selected topic acquire positive significance. By substantiating the relevance of the topic, the researcher proves how important the problem is for the era, progress, and science. The relevance of the topic can be justified by the above objective and subjective factors. The fact that the topic is not studied or is poorly studied, that contradictory approaches, concepts or postulates are being put forward to the problem, that this or that phenomenon does not lead to positive results, that it hinders development, that cases of "alienation" arise in the relations between the individual and society, and that legal norms cannot effectively influence deviant behavior can be studied as topical topics. However, in substantiating the relevance of the topic, it is necessary to rely on one postulate derived from scientific research. It is a derivation from the contradictions between the real state and the ideal state of the object (subject) of research. For example, today, in the real state, the object (person) knows two languages - Uzbek and Russian. But in the ideal state, he can know, learn and speak forty languages fluently. The research should seek answers to the questions: what reasons and factors prevent a person from reaching the ideal state, what can be done to bring a person to the ideal state, to educate him. When justifying the relevance of the research topic, it is necessary to indicate the main reasons and factors that prevent the object (subject) from reaching the ideal state. The fundamental commonality between the real state of the object (subject) of research and the ideal state is its existence (of the object or subject) in space and time. The object (subject) of research existed in space and time before the research, and it must exist in space and time after the research. However, when it passes from a real state to an ideal state, it can qualitatively change, that is, form in itself qualities, views, skills and connections that are absent in the real state. The real state is not an antagonist of the ideal state, it is a form of the ideal state that needs to be improved. The ideal state is also not an antagonist of the real state, it is an improved form of the real state. However, social progress cannot leave the real state as it is, as it exists, social progress cannot be realized without improving it. The immanent law of social progress can turn obstacles, obstacles, conservative views in the real state into the opposite, even rivals of the ideal state. That is why, when a society moves from one socio-historical stage to another, often contradictory to the previous one, it overcomes the existing obstacles in the real situation by force. Often, researchers use the method of confirmation to substantiate the relevance of the topic. In fact, emphasizing the existence of a problem is also a method of statement. However, in our opinion, it is appropriate to use not only statement to substantiate the relevance of the topic, but also the method of citing contradictions, listing obstacles in the real situation, and emphasizing the social necessity of achieving an ideal state. Because the sociodynamic nature of social life encourages us to substantiate the relevance of the topic by searching for ways to move from the real to the ideal state. The method of statement is often limited to recording stable, stable things, events that have occurred. The transition of the object of research (subject) from the real state to its ideal state corresponds to the sociodynamic nature of social development, therefore, a sociodynamic approach to substantiating the relevance of the topic is necessary. In each field of science, there is a need to summarize and generalize the existing empirical experiences, the results of epistemological research. Such scientific research is of fundamental importance, as it helps to determine the real state of the field of science, what theoretical, philosophical, methodological problems it faces, and the ways of its development, the stages of reaching the ideal state. The study of such specific problems of the field of science requires the researcher to have extensive epistemological experience and a good understanding of the philosophical and methodological problems of science.

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