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ISSUES OF FORMING STUDENTS' SCIENTIFIC WORLDVIEW IN THE HERITAGE OF EASTERN THINKERS

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Abstract: This article provides a scientific analysis of the views of Eastern thinkers on the formation of students' scientific worldview. In particular, the ideas of great scholars about scientific thinking, the process of cognition, education, and upbringing are examined from the perspective of the modern education system. The article also highlights effective ways of using historical heritage in developing students' scientific thinking.

Keywords: Eastern thinkers, scientific worldview, thinking, education, cognition process, pedagogical heritage, scholars, scientific thinking.

INTRODUCTION

The formation of a scientific worldview of students in the modern education system is recognized as one of the urgent pedagogical problems. In the conditions of globalization, a sharp increase in the flow of information and scientific and technological progress, a person is required not only to possess knowledge, but also to be able to analyze it, think independently and draw scientifically based conclusions. Therefore, one of the important tasks in the educational process is to form scientific thinking in students, expand their worldview and develop critical thinking skills.

A scientific worldview is a person's ability to comprehend knowledge about nature, society and thought in a logical system, to understand events and phenomena on the basis of cause-and-effect relationships, and to think based on scientific methods. This process does not form by itself, but develops as a result of goal-oriented education and upbringing. Especially the formation of a scientific worldview in school-age students directly affects their further life activities, professional orientation and social adaptation.

In this regard, the heritage of Eastern thinkers is of particular importance. Great scholars such as Abu Nasr Al-Farabi, Abu Rayhan Al-Biruni, Abu Ali Ibn Sina, Alisher Navoi, in their works, shed light on the issues of science, thought, the process of knowledge and education on a deep scientific basis. They considered science as the main factor of human perfection and emphasized the need to harmoniously develop the logical, experimental and practical aspects of acquiring knowledge.

For example, Al-Farabi emphasized the consistency of logical thinking and the process of knowledge in the formation of scientific thinking, while Al-Biruni put forward the acquisition of knowledge based on experience and observation as the most important method. Ibn Sina, on the other hand, considered the development of human intellectual activity as the main condition for scientific knowledge and considered the harmony of theory and practice to be important. These ideas are in line with today's modern pedagogical views and once again confirm their relevance.

At the same time, the current education system does not fully and effectively use this rich scientific heritage. In many educational processes, the emphasis is on providing theoretical knowledge, and methods aimed at forming scientific thinking are not used to a sufficient extent. As a result, students perceive knowledge at the level of memorization, but encounter difficulties in analyzing and applying it in practice.

Therefore, it is an important scientific and practical task to combine the heritage of Eastern thinkers with modern pedagogical approaches, integrate them into the educational process, and develop effective methods for forming a scientific worldview in students.

This article analyzes the ideas related to the formation of students' scientific worldview in the heritage of Eastern thinkers, reveals their theoretical foundations, and scientifically substantiates the possibilities of their application in the modern education system.

METHODOLOGY

This study is aimed at a comprehensive study of the issues of forming students' scientific worldviews in the heritage of Eastern thinkers, in which theoretical and practical approaches were used in harmony. The methodological basis of the study is a system of philosophical, pedagogical and historical views. This allowed for a comprehensive and in-depth analysis of the topic.

In the process of the study, first of all, the scientific heritage of Eastern thinkers, their views on education, thinking and the process of cognition were studied. Also, a comparative analysis was carried out with modern pedagogical approaches, and the role and significance of historical ideas in today's education system were clarified.

The following scientific methods were widely used in the study:

— Historical-analytical method - the works of such thinkers as Abu Nasr Al-Farabi, Abu Rayhan Al-Beruni, Abu Ali Ibn Sina, Alisher Navoi were studied, and their views on the formation of a scientific worldview were analyzed. This method revealed the content and essence of the scientific heritage.

— Comparative analysis method – the views of Eastern thinkers were compared with modern theories of pedagogy and education. Through this, the relevance and practical significance of their ideas for today were clarified.

— Logical generalization method – based on the studied sources, general scientific conclusions were drawn and the main directions of the formation of a scientific worldview were systematized.

— Systematic approach method – the process of forming a scientific worldview was considered as a single system and its components (knowledge, thinking, experience, moral education) were analyzed in their interrelation.

— Pedagogical analysis method – methods, tools and forms aimed at forming a scientific worldview in the educational process were studied and their effectiveness was evaluated.

During the study, scientific sources, pedagogical literature, historical works and studies on modern education were analyzed. This ensured the reliability and scientific validity of the results obtained.

RESULTS

The results of the study showed that the heritage of Eastern thinkers serves as an important theoretical and practical basis for the formation of students' scientific worldview. It was found that their scientific views can be used in harmony with the current modern education system.

Based on the analysis, the scientific ideas put forward by Eastern thinkers were divided into the following main areas:

— Continuity of scientific knowledge - thinkers interpreted the acquisition of knowledge as a process that continues throughout human life. This idea is important in forming the need for continuous learning in students.

— Development of thinking and logical thinking - The works of Al-Farabi and Ibn Sina emphasize the processes of logical thinking, reasoning and drawing conclusions. This is manifested as one of the main components of the scientific worldview.

— Obtaining knowledge based on experience and observation - Al-Biruni substantiated the importance of the method of experience and observation in scientific knowledge. This approach also forms the basis of today's modern scientific methodology.

— The harmony of theory and practice – thinkers emphasized the need to connect knowledge not only with theoretical, but also with practical activities. This develops students' skills in applying knowledge in real life.

— The continuity of moral and scientific education – it was noted that a scientific worldview should be formed not only with knowledge, but also with spiritual and moral values.

The following practical results were also identified during the study:

— The use of historical heritage is an effective pedagogical tool for forming a scientific worldview in students

— Integration of the ideas of Eastern thinkers into the teaching process increases students' interest

— Problem-based learning, experimental exercises and interactive methods play an important role in the development of scientific thinking

— Students' independent thinking and analytical skills are significantly developed through this approach

In addition, the results of the study showed that in the current education system, the process of forming a scientific worldview is carried out in a more theoretical direction. Practical, experimental and analytical approaches are not being used sufficiently. Therefore, there is a need to widely introduce approaches based on the heritage of Eastern thinkers. In general, the results confirm that the scientific and pedagogical ideas put forward by Eastern thinkers are relevant for the modern education system, and their practical application ensures high efficiency in forming students' scientific worldviews.

DISCUSSION

The results of the study show that the heritage of Eastern thinkers serves as an important theoretical basis for the formation of students' scientific worldview. Their views on science, thinking and the process of cognition are consistent with modern pedagogical approaches. In particular, the issues of developing logical thinking, obtaining knowledge based on experience and observation, and ensuring the connection between theory and practice are relevant for today's education system.

At the same time, in practice, it is observed that the level of use of this rich scientific heritage is insufficient. In many cases, the educational process is aimed at providing ready-made knowledge, and students' skills of independent thinking, analysis and drawing conclusions are not sufficiently developed. As a result, obstacles arise to the deep formation of a scientific worldview.

Therefore, it is important to widely introduce the ideas of Eastern thinkers into the educational process, use interactive and problem-based teaching methods, as well as apply methods that encourage students to think actively. These approaches increase students' interest in knowledge and develop their scientific thinking.

CONCLUSION

In conclusion, the heritage of Eastern thinkers represents a significant scientific and pedagogical foundation for shaping students' scientific worldviews. The ideas of these scholars regarding science, reasoning, and education continue to maintain their relevance within the context of the modern educational system. Their emphasis on rational thinking, observation, and the integration of knowledge with moral values provides a holistic approach to education that aligns with contemporary pedagogical goals.

The effective use of this rich intellectual heritage contributes to the development of students' abilities in independent thinking, logical analysis, and drawing well-grounded scientific conclusions. By incorporating the works and ideas of Eastern thinkers into the educational process, educators can foster deeper cognitive engagement and encourage students to move beyond memorization toward critical and analytical thinking.

Moreover, the formation of a scientific worldview becomes more effective when theoretical knowledge is closely integrated with practical application. The use of modern pedagogical technologies, interactive teaching methods, and problem-based learning approaches further enhances this process. Such methods not only improve students' understanding but also strengthen their ability to apply knowledge in real-life situations.

It is also important to note that the integration of classical intellectual heritage with contemporary educational practices creates a more meaningful and culturally enriched learning environment. This approach helps students appreciate their historical roots while simultaneously preparing them for global academic and professional challenges.

As a result, students are shaped into well-rounded individuals who are not only knowledgeable but also possess a broad worldview, strong analytical skills, and the ability to think independently. These qualities enable them to meet modern societal demands and actively contribute to the development of science, education, and society as a whole.

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