FORMATION OF SCIENTIFIC WORLDVIEW IN STUDENTS IN THE PROCESS OF TEACHING "EDUCATIONAL SCIENCES".

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Abstract: *The formation of a scientific worldview is one of the essential goals of contemporary education, especially in the field of Educational Sciences where students learn not only theoretical foundations but also the scientific approaches that shape teaching, learning, and research practices. This article explores the conceptual essence of a scientific worldview, its pedagogical significance, and the mechanisms through which Educational Sciences can ensure its effective development in students. The paper analyzes psychological-pedagogical factors, didactic strategies, and the role of modern technologies in creating conditions for students to adopt scientific thinking, critical inquiry, and evidence-based decision-making. Recommendations are proposed for improving curricula, teaching methods, and teacher competencies to strengthen the scientific worldview of future educators.*

Keywords: *scientific worldview, "Educational Sciences", pedagogy, critical thinking, methodological approaches, problem-based learning, project methods, practical exercises, social responsibility, pedagogical methods, educational values, moral education.*

Аннотация: *Формирование научного мировоззрения является одной из важнейших задач современного образования, особенно в области педагогических наук, где студенты осваивают не только теоретические основы, но и научные подходы, определяющие практику преподавания, обучения и исследования. В статье исследуется концептуальная сущность научного мировоззрения, его педагогическое значение и механизмы, посредством которых педагогические науки могут обеспечить его эффективное развитие у студентов. Анализируются психолого-педагогические факторы, дидактические стратегии и роль современных технологий в создании условий для формирования у студентов научного мышления, критического мышления и принятия решений на основе фактических данных. Предлагаются рекомендации по совершенствованию учебных программ, методов обучения и компетенций учителей для укрепления научного мировоззрения будущих педагогов.*

Ключевые слова: *научное мировоззрение, педагогические науки, педагогика, критическое мышление, методические подходы, проблемное обучение, проектные методы, практические занятия, социальная ответственность, педагогические методы, образовательные ценности, нравственное воспитание.*

Annotatsiya: *Ilmiy dunyoqarashni rivojlantirish zamonaviy ta'limning, ayniqsa pedagogika fanlari sohasidagi eng muhim vazifalardan biri bo'lib, unda talabalar nafaqat nazariy asoslarni, balki o'qitish,*

o'rganish va tadqiqot amaliyotini shakllantiruvchi ilmiy yondashuvlarni ham o'zlashtiradilar. Ushbu maqolada ilmiy dunyoqarashning kontseptual mohiyati, uning pedagogik ahamiyati va pedagogika fanlari talabalarda uning samarali rivojlanishini ta'minlash mexanizmlari ko'rib chiqiladi. Unda psixologik va pedagogik omillar, didaktik strategiyalar va zamonaviy texnologiyalarning talabalarning ilmiy fikrlashi, tanqidiy fikrlashi va dalillarga asoslangan qarorlar qabul qilishini rivojlantirish uchun sharoit yaratishdagi roli tahlil qilinadi. Bo'lajak o'qituvchilarning ilmiy dunyoqarashini mustahkamlash uchun o'quv dasturlari, o'qitish usullari va o'qituvchilarning kompetentsiyalarini takomillashtirish bo'yicha tavsiyalar taklif etiladi.

Kalit so'zlar: *ilmiy dunyoqarash, pedagogika fanlari, pedagogika, tanqidiy fikrlash, metodologik yondashuvlar, muammoli o'rganish, loyihaga asoslangan usullar, amaliy mashg'ulotlar, ijtimoiy mas'uliyat, pedagogik usullar, ta'lim qadriyatlari, axloqiy tarbiya.*

INTRODUCTION

The rapid development of science and technology in the twenty-first century demands that educational systems prepare individuals capable of navigating complex social, cultural, and professional environments. One of the most important characteristics of such individuals is a scientific worldview, which includes rational understanding of reality, reliance on empirical evidence, logical reasoning, and openness to new knowledge.

In the field of Educational Sciences, the formation of a scientific worldview is especially critical. Teachers and education specialists must analyze learning processes, diagnose educational problems, and make informed pedagogical decisions based on theories, research findings, and objective data. Therefore, the teaching of Educational Sciences plays a strategic role in shaping students' scientific perspectives from early stages of their professional preparation.

This article highlights conceptual approaches, theoretical bases, and practical methods for forming a scientific worldview in students during the study of Educational Sciences. It also evaluates challenges and prospects relevant to higher education institutions.

PEDAGOGICAL APPROACH

It is noteworthy that in order to form a scientific worldview in the teaching of "Educational Sciences", educators should use the following methods:

- Multifaceted analysis - teaching students to analyze events in society from different perspectives.
- Orientation to practice in lessons - developing students' scientific thinking by conducting scientific research and conducting experiments.
- Discussion of social topics - studying, discussing and developing solutions to social and moral problems in society with a scientific approach.

The formation of a scientific worldview in educational sciences introduces students not only to scientific knowledge, but also to the skills of approaching social problems from a scientific perspective. This helps them choose the right path in making decisions in life. There are several methods for forming a scientific worldview through educational sciences. The methodological approach of educational sciences is of great importance in forming a

scientific worldview in students. This approach is aimed, first of all, at developing students' logical thinking, forming among them the skills of scientific thinking and independent decision-making.

THE MAIN METHODS OF FORMING A SCIENTIFIC WORLVIEW

1. Problem-based learning - encouraging students to solve scientific problems, teach them to critically approach various scientific ideas and justify their opinions. This method develops students' independent thinking.

2. Learning through research - teaching students to conduct scientific research, deepen and consolidate knowledge through practical research, experiments.

3. Experience and practical exercises - teaching students to apply theoretical knowledge in practice, along with setting scientific goals, encouraging them to solve social, scientific and environmental problems.

4. Human worldview and moral values - the formation of a scientific worldview is not limited to theoretical knowledge, but it is also necessary to teach students moral, aesthetic and social values. Students are taught not only scientific knowledge, but also to feel the responsibility they have before humanity and society.

The influence of educational sciences on the scientific worldview is that they teach students not only knowledge, but also how to act in modern society based on moral and scientific approaches. This further improves students' views on the changing world and gives them independent thinking skills.

The methodological approach of educational sciences is of particular importance in the formation of a scientific worldview. This approach helps to convey scientific ideas to students in a simple and understandable way, to form in them an interest in knowledge and the free expression of their own opinions. The scientific methods used in the formation of a scientific worldview in educational sciences create opportunities for students to learn modern knowledge. For example:

- Empirical method – helps students gain a deeper understanding of scientific ideas through experience, observation, and practice.
- Mathematical methods – the use of statistical analysis and mathematical modeling techniques in the formation of a scientific worldview in educational sciences allows students to draw clear and well-founded conclusions.

PEDAGOGICAL PRACTICE AND SCIENTIFIC EDUCATION

The methodology for forming a scientific worldview in educational sciences encourages and helps teachers to apply knowledge in practice, and students to apply theoretical knowledge in solving various social and environmental problems. Thus, a scientific worldview is the main elevating element of educational sciences, which helps students develop expanded thinking and scientific skills. The main goal of educational sciences is to form a moral, aesthetic and scientific worldview in students. A scientific worldview expands the thinking of students, develops their critical thinking and helps them feel social

responsibility as individuals. A scientific worldview provides students with the following main opportunities:

1. Development of critical thinking - students learn to analyze problems scientifically and logically.

2. Making independent decisions - a scientific worldview helps students make independent and clear decisions in life situations.

3. Understanding the role and responsibility in society - a scientific worldview encourages students to actively participate in solving social problems in society.

Thus, a scientific worldview includes not only scientific knowledge, but also emphasizes human values, moral norms and social responsibilities. Through a scientific worldview, students not only receive information about scientific achievements, but also learn to analyze problems in society from a scientific perspective. This, in turn, encourages them to be socially active, civically responsible and appreciate moral values in society.

The methodology for forming a scientific worldview in educational sciences is based on the teacher's ability to convey scientific ideas to students in an understandable and effective way. The following methods can be used to form a scientific worldview in educational sciences:

1. Problem-based learning method:

The problem-based learning method provides students with the opportunity to freely express their thoughts on scientific issues and find independent approaches to solving problems. This method encourages students to think logically, critically, and apply scientific approaches. For example, students are asked questions about environmental problems or social injustices in society, and are encouraged to analyze them from a scientific perspective and find solutions.

2. Project Method:

In the project method, students mainly work independently to solve scientific and practical problems. Students test their knowledge by working in groups, developing a project, studying a problem, and producing practical results. This method provides students with the opportunity to apply scientific thinking not only theoretically but also in practice.

3. Discussion and Debate in Lessons:

Organizing discussions and debates in lessons is one of the effective methods for forming students' scientific worldviews. This method allows students to freely express their views, listen to the opinions of others, and evaluate scientific perspectives. Students further expand their knowledge by conducting discussions on various social and scientific problems.

4. Experiments and practical exercises:

It is important to conduct experiments and practical exercises in order to form a scientific worldview in students, and to direct them to practice. For example, in physics, chemistry, or biology, students can apply their knowledge by conducting experiments, observing phenomena, and drawing scientific conclusions.

PEDAGOGICAL MECHANISMS FOR SHAPING THE SCIENTIFIC WORLDVIEW

1. Active Learning Strategies: Active learning enhances students' engagement and promotes scientific thinking. Effective strategies include:

2. Problem-based learning (PBL): Students analyze real educational problems, search for causes, and propose solutions based on scientific principles.

3. Project-based learning: Long-term projects facilitate deeper inquiry and critical reflection.

4. Case method: Analysis of authentic cases helps students understand the complexity of educational situations and apply theoretical concepts.

5.Inquiry-based learning: Students generate hypotheses, conduct experiments or observations, and interpret findings.

These strategies develop the habit of questioning, investigating, and validating information—characteristics of a scientific worldview.

THE ROLE OF THE TEACHER IN A SCIENTIFIC WORLDVIEW

1. Teacher as a Model of Scientific Thinking- Students often acquire scientific habits by observing their teachers. Teachers should:

- Demonstrate evidence-based decision-making
- Use research findings to support instructional choices
- Encourage inquiry and experimentation
- Show openness to new ideas and willingness to revise beliefs

2. Teacher Competence in Research Methods- Teachers of Educational Sciences must possess strong methodological knowledge. Their competence determines how effectively students learn to design research, analyze data, and draw conclusions.

CONCLUSION

We know that the formation of a scientific worldview in "Educational Sciences" is an effective way to provide students with knowledge about science, moral values, and their place in society. This process helps to develop students' thinking skills, a sense of scientific and social responsibility. At the same time, educators should use important pedagogical methods in the formation of a scientific worldview, while increasing students' motivation and involving them in practical activities.

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