# International Journal of Discoveries and Innovational 1

| e-ISSN: 2792-3983 | www.openaccessjournals.eu | Volume: 2 Issue: 2

## The Importance of Cognitive Processes in the Formation of a **Scientific Worldview among Students**

### Kamolova Shirin Usarovna

Senior teacher of Jizzakh State Pedagogical Institute

### **Abstract:**

It is known that for many decades the process of forming a scientific worldview was built in accordance with the Marxist-Leninist worldview proclaimed in our country. The changed historical situation and the accumulation of a hugearray of new scientific data required a rethinking of the problem of the formation of the scientific worldview of the individual in the educational process. The study of psychological and pedagogical sources and dissertations allowed us toconclude that, despite the available approaches to the study of this topic, many of its aspects remain insufficiently studied to date. As the analysis showed, one of the reasons for this essence of the issue is the complexity, ambiguity and poor knowledge of the very term "scientific worldview" in the scientific literature. The worldview problem has a long history (Homer, Pythagoras, Plato, Heraclitus, Aristotle, Descartes, Kant, Hegel, Marx, Engels, Lenin, P.V. Alekseev, V.S.Buyanov, V.I.Drygin, V.F. Chernoolenko, G. Meyer, M. Scheler et al.) And is described in multivolume literature.

**Keywords:** worldview, self development, values, critical thinking, systems approach

## **DISCUSSION**

Each person has personal ideas, views and their attitude to what is happening. But the main feature of these ideas, views and relationships is different. In accordance with the requirements forthe results of mastering the content of a worldview and its connections with scientific knowledge, faithand the life skill of a person, three types ofworldview are distinguished: scientific, religious, everyday or worldly.

Consequently, the development of thescientific worldview of the person expresses the process of assimilation by a person of the interestsand needs of society, their internal perception, leading to a harmony of the interests of theindividual and society. Obviously, this is a long and difficult process, depending on many reasons, and, initially, from who educates whom. Since the rise ofscience caused not only the formation of its theoretical part, but also left an imprint on the forms and style of progressive thinking, one of the foundations of which is a zeal for actual reliability.

The facts of reality become facts of science, one ofthe primary foundations of a scientific worldview. The holistic process of forming a scientific worldview among students is supported by the continuity in training, the interpenetrating connections between subjects.

The implementation of interdisciplinary connections allows you to see the same action from different points of view, to geta holistic view of it. Understanding the deepest interconnection of the worldview we can say that the scientificworldview today should be based on anunderstanding of the world as a constantly evolving system in which human and nature might and could develop only in interconnection.

A scientific worldview is based on set of generalized philosophical, fundamental scientific and general scientific knowledge of the world. In the course of the study, it was required to answer the

## International Journal of Discoveries and Innovation **Innovations in Applied Sciences**

| e-ISSN: 2792-3983 | www.openaccessjournals.eu | Volume: 2 Issue: 2

question of what is the degree of generalization of worldview knowledge, which would reflect not individual fragments of the world, but the world as a whole. In answering it, we relied on the following position. In science, it is generally accepted that the highest form of systematization of knowledge about the world is the scientific picture of the world, which allows one to develop anindividual's view of the world as a single, harmonious, harmonious whole.

New sociocultural and economic conditions, which future specialists have to adapt to, cannot butaffect their worldview. The student's worldview is more variable and flexible in contrast to theworldview of an adult and a person who has alreadytaken place personally and professionally, which ismanifested in the activity of cognizing the world, inmastering new information technologies, in the possibility of mastering new forms of socioeconomic and cultural life, in the style of communication and behavior.

The formation of a student's worldview in the process of studying at auniversity is a complex and multi-stage process, where a correctly selected theoretical approach is animportant component. Thus, the axiological approach as the goal offorming the worldview of university students involves values, value meanings and valueorientations, which are the "axiological spring" ofthe emerging worldview.

The axiological foundations of the worldview of university studentscan be revealed through a system of axiological principles, which include: recognition of a person aspart of nature as the highest value, respect for the uniqueness of each person, recognition of socialrights and freedoms, attitude to society and theen vironment as subjects of their own development, kindness, mercy, love, tact, help, spiritual "nutrition" of students.

The worldview has a complex and multidimensional structure and as a psychological entity. Its core is views and beliefs that are organically linked to the developed ability of theoretical thinking, the manifestation of intellectualfeelings and conscious will. The worldview has two sides: rational and emotional-psychological, closelyintertwined. Views are determined by people accepted as reliable ideas, knowledge, theoretical concepts, assumptions expressed in ideas and concepts. They explain the phenomenon of nature and society serves as guidelines in behavior, activity, relationships and form the basis of the worldview. General provisions and principles turn into beliefs - a special state of knowledge characterized by firmconfidence.

Beliefs are a qualitatively higher state of view. This is such knowledge, ideas, concepts, theories, hypotheses in which a person believes, as in truth. He considers their realization in life a blessing necessary for people and therefore emotionally defends them, takes strong-willedefforts and practical actions in order to implement them.

The organic property of beliefs is feelings. The upholding, protection, implementation ofbeliefs in life is inextricably linked with the emotional experiences of a person. Especially significant for him are intellectual feelings, such asthe joy of knowledge and the belief in theinfallibility of truth, the aesthetic enjoyment of itsbeauty and devotion to it, social optimism and determination. Ideals are spiritual guidelines that give meaningfulness and purposefulness to humanactivity.

Worldview provisions and principles contain an assessment of the phenomenon of reality, determine the life position of a person. Worldviewincludes moods, feelings, experiences that make upthe emotional and psychological basis. The interconnection of sensory and intellectual representations of people about themselves and about the world, included in the "I" of each person, is an important aspect of the structure of theworldview.

If you give a schematic formula, it sounds like this: a person's feelings are intellectual, and intellectual representations are riddled withfeelings. A systematic approach to the formation of the

ISSN 2792-3983 (online), Published under Volume: 2 Issue: 2 in February-2022

Copyright (c) 2022 Author (s). This is an open-access article distributed under the terms of Creative Commons Attribution License (CC BY). To view a copy of this license, visit https://creativecommons.org/licenses/by/4.0/

# IJDIAS International Journal of Discoveries and Innovations in Applied Sciences

| e-ISSN: 2792-3983 | www.openaccessjournals.eu | Volume: 2 Issue: 2

worldview ofuniversity students is in close interconnection with the axiological foundations that underlie theemerging personality. So, depending on the type ofvalue systems, the content of this process can be varied as follows: - worldview based on transcendental valuesincludes such values as soul, immortality, happiness, faith, love, hope, guilt, redemption, and others; - as basic in relation to sociocentric values, freedom, equality, fraternity, labor, peace, creativity, humanity can be singled out; - worldview based on anthropocentric valuesimplies self-realization, autonomy, subjectivity, benefit, etc.

The development of personality, theformation of its worldview is a very complexprocess, exposed to a variety of various factors. The upbringing of a worldview is a process of simultaneous, in organic unity, development ofscientific consciousness, a culture of thinking, feelings and emotional relationships, determination and a culture of volitional actions.

The child's consciousness, as a system of views and beliefs, is formed primarily as a result of the development of sciences, in this process feelings and will are also formed. Worldview education as an organic unity of consciousness, thinking, feelings and will, carriedout in the unity of the educational process and life, requires an integrated approach. A worldview can only be the result of a holistic, integratedorganization of the educational process: intellectualand emotional cognition of the world in the classroom and its practical development inextracurricular activities.

The sociological approach helps to identifythe particularities of the views of various socialgroups, their goals, ideals. A holistic analysis of the worldview presupposes a evaluative, axiological approach, because a worldview is not only a system of knowledge and ideas about the world, but also conscious human interests, ideals, moral and legalnorms, humanistic values that determine a person's behavior in life, his attitude to society and to himself. At the same time worldview is a specific knowledge that has a certain value orientation that determines the nature and orientation of practical activity, which takes the form of goals.

The goals reflect the needs and interests of the current subject. The expression of the unity of knowledge and goals in human activity is coming. It reflects the present content of the phenomenon of reality, the tendencyof their development, not only existing, but also due. An important component of the scientific worldview is principles. An important component of the worldview is the ideal. This is a holistic complex of ideas, principles, views on the most perfect life, corresponding to the interests, desires, aspirations of the individual. An ideal embodies in itself not only what really exists, how much desired, due, ideal, butnot speculatively created, but based on a deepcomprehension of the objective trends in the development of phenomenon or processes.

The ideal answers the fundamental questions of human life - the meaning and purpose of life, points to appropriate patterns, standards of behavior. In our opinion, when considering ideals, it is necessary totake into account such characteristics as scientific validity, practical feasibility, and the concreteness of truth. Man's behavior is controlled not only by themind, but also by his feelings and will.

The formation of a scientific worldview is possible only with a complex impact on the intellectual, emotionaland volitional spheres of consciousness throughactivities on the basis of the socio-psychological characteristics of the individual. Faith plays an important role in the structure of beliefs. According to some authors, it is considered as the antipode of knowledge and contrasted with conviction. Sometimes the concept of faith is limited to religious content.

The specificity of faith is that the learned information is accepted a priori. Knowledge taken on faith becomes a personal way of seeing the world. Life-meaning information becomes a guide to action. An unbeliever in difficult circumstances can become a believer depending on what kind of

## International Journal of Discoveries and **Innovations in Applied Sciences**

| e-ISSN: 2792-3983 | www.openaccessjournals.eu | Volume: 2 Issue: 2

knowledge determines his life expectancy. Faith acts as the ability to perceive the wish for the reality; it becomes a certain sensual-emotional and psychological mood. Students emerged naturally and are developing as a response to the objective need of society for highly qualified specialists.

In the scientific literature, student youth is often divided into the following categories: students as a specificsocial group in the social structure of society; socialand professional groups (engineers, teachers, doctors); students as part of youth (demographic group); small social groups (study group, scientificcircle, student family, etc.); student identity. Such a division has not only theoretical, but also practical significance, primarily in the educational system. In our dissertation, we consider the features of students as a specific social group.

The formation of the worldview of university students from the perspective of the environmental approach considers the educational environment of a higher educational institution and a set of natural conditions, and the real world of human habitation, and those "noospheric" phenomenon that form the student's world as a "human world", and the people around the student, and human communities, organizations with which he has to interact tovarying degrees.

From the position of a humanistic approach, the formation of the student's worldview is carried out in several stages:- diagnostic (includes axiological andcognitive components, aims at introducing studentsto the world of values and assisting in the selection of a personally significant system of valueorientations, personal meanings, provides studentswith scientificknowledge about a person, culture, history, nature, the noosphere as the basis of spiritual development);- personal (provides self-knowledge, development of reflective ability, mastery of themethods of self-regulation, selfimprovement, moraland life self-determination, forms a personal position);- activity-creative (contributes to the formation and development of students of a variety of ways of activity, creative abilities necessary forself-realization of a person in knowledge, work, scientific, artistic and other types of activity). The problem of the formation of a scientific worldview is that the deliberate development of thetheoretical level of consciousness "does not cancelout other layers of the worldview, mythological atavisms or worldly priorities that are actually present in a multifaceted human being.

And vice versa, an individual speaking on behalf of only atheoretical, scientifically systematized and extremelyrationalized worldview does not resemble a living, suffering and dreaming human being. "The effect of the formation of a scientific worldview is achieved not by the influence of theteacher, but by the synergy of the interaction between the teacher and the student, society and the student, the external environment (nature, technology, art, etc.) and the student, i.e. society, theteacher, the world around and the learner - this can be seen in the structure of the worldview. As a synergistic education, a worldview develops in a complex non-linear process of self-organization, all of which cannot be taken into account; as a synergistic education, the worldview has alternatived evelopment paths; this development is not and cannot be uniform and predetermined.

The essence of the method is to build a problem situation (task) and student learning, the ability to independently find the optimal solution to get out of this situation. At the same time, students do not receive a ready-made assignment, but must, based on their knowledge, aswell as on their worldview (beliefs, views), find away to solve a new problem, that is, offer their ideafor solving the problem.

The interaction of the teacher and students as a meeting of their value aspirations is observed in theeducational place, in pedagogicalreality, where themain teacher-student relationship dominates. The results of the study showed that the mainplace is given to the teacher, who, thanks to the focused pedagogical work, organizes students' thoughts, enriches and fills their understanding withvalue values. Thus, the scientific worldview is achieved notby the action of the educator, but by ISSN 2792-3983 (online), Published under Volume: 2 Issue: 2 in February-2022

Copyright (c) 2022 Author (s). This is an open-access article distributed under the terms of Creative Commons Attribution License (CC BY). To view a copy of this license, visit https://creativecommons.org/licenses/by/4.0/

# IJDIAS International Journal of Discoveries and Innovations in Applied Sciences

| e-ISSN: 2792-3983 | www.openaccessjournals.eu | Volume: 2 Issue: 2

the facilitating interaction of the educator and the learner, the community and the learner, the external environment (technology, nature, art, etc.) and the learner, that is, society, the teacher, the world around us and learner- this is also traced in the structure of the worldview.

As a synergistic education, the worldview develops a difficult non-linear process of self-organization, all the reasons of which are impossible to take into account; as a synergetic formation (self-education), the worldview has other ways of becoming, this becoming is not classified and cannot at all beuniform and predetermined, it develops individually. Directly, these distinguishing features characterize the need for isolation during the formation of aholistic worldview of individual parties, for which it is quite possible to establish some stable states that are the result of a phased purposeful formation of ascientific worldview.

### **BIBLIOGRAPHY**

- 1. Barsukova, NK Physical knowledge as a worldviewphenomenon [Text] / NK Barsukova // Materials of the XIII All-Russian scientific and technical conference- Irkutsk, 2003
- 2. Morozova M.I. Formation of scientific outlook inpupils at training the general biology: thesis for Candidate of Pedagogy degree. SPb., 2005
- 3. Barsukova, NK Variant of world-oriented training forcadets [Text] / NK Barsukova // Scientific works ofthe Irkutsk All-Russian Military Aviation Institute(military institute) collection of articles by school staffIssue VI-Irkutsk IVVAIU (VI), 2006
- 4. Astashova N.A. Teacher: the problem of choice and theformation of values. M.; Voronezh, 2000
- 5. Kamolova Sh.O'., Axmedova N. Healthy lifestyle in the formation of the student's personality // Scientific and methodical journal "Teacher and Continuous Education". Nukus, 2009. № 1.
- 6. Kamolova Sh.O'. Pedagogical and psychological aspects of increasing the intellectual potential ofstudents // (Textbook) Tashkent, 2010. 68 pages.
- 7. Kamolova Sh.O'., Munarova R.O'. Urovni sovershenstvo lichnosti // Issledovatel nauchпыуzhurnal. Kazakhstan, 2010. № 5 (49). B.100-105.
- 8. Kamolova Sh.O'., Munarova R.O'. Improving the outlook of future teachers // Primary education.—Tashkent.
- 9. Shirin Kamolova, РАСШИРЕНИЕ И РАЗВИТИЕ НАУЧНОЕ МИРОВОЗЗРЕНИЕ СТУДЕНТОВ, Журнал Педагогики и психологии в современном образовании: № 1 (2020): Journal of Pedagogy and psychology in modern education
- 10. Shirin Kamolova, САМОВОСПИТАНИЕ ОСНОВА ФОРМИРОВАНИЯ ГАРМОНИЧНО РАЗВИТОГО ПОКОЛЕНИЯ, Журнал Педагогики и психологии в современном образовании: № 1 (2020): Journal of Pedagogy and psychology in modern education
- 11. Shirin Kamolova, ПРЕЕМСТВЕННОСТЬ ФОРМИРОВАНИЯ МИРОВОЗЗРЕНИЯ СТУДЕНТОВ НА ОСНОВЕ ОБЩЕЧЕЛОВЕЧЕСКИХ ЦЕННОСТЕЙ, Журнал Педагогики и психологии в современном образовании: № 1 (2021): Zamonaviy ta'limda pedagogika va psixologiya fanlari
- 12. Shirin Kamolova, THE ROLE OF UNIVERSAL AND SCIENTIFIC VALUES IN THE SPIRITUAL DEVELOPMENT OF FUTURE TEACHERS, Журнал Педагогики и

# IJDIAS International Journal of Discoveries and Innovations in Applied Sciences

| e-ISSN: 2792-3983 | www.openaccessjournals.eu | Volume: 2 Issue: 2

- психологии в современном образовании: № 2 (2021): Журнал педагогики и психологии в современном образовании
- 13. Shirin Kamolova, ИСПОЛЬЗОВАНИЕ ИНТЕРАКТИВНЫХ МЕТОДОВ В ОБРАЗОВАНИИ ЯВЛЯЕТСЯ ТРЕБОВАНИЕМ СЕГОДНЯШНЕГО ДНЯ, Журнал Педагогики и психологии в современном образовании: № 2 (2021): Журнал педагогики и психологии в современном образовании