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Organized By

SAMARKAND REGIONAL CENTER FOR RETRAINING AND  
ADVANCED TRAINING OF PUBLIC EDUCATION STAFF,  
UZBEKISTAN

In Association with

**JournalNX**

A Multidisciplinary Peer Reviewed Journal

ISSN: 2581-4230

Impact Factor 7.232

**International  
Conference 2021**

**April  
15th, 2021**



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3. Current issues of cognitive pedagogy.
4. Cognitive approaches in psychological and sociological theory.
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6. Pedagogical and psychological bases of formation of cognitive skills in students.
7. Cognitive learning: features, process and practice.
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ISSN: 2581-4230

Impact Factor 7.223

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**Islamova Maftuna Sharofiddinoyna**  
For Presentation and Publication of paper Entitled  
**SYSTEM OF METHODS FOR FORMING PROFESSIONAL WORLD VIEW IN  
PUPILS BASED ON CHEMICAL KNOWLEDGE**

In an International Scientific-Practical Conference on "COGNITIVE RESEARCH IN EDUCATION" Organized by SAMARKAND REGIONAL CENTER FOR RETRAINING AND ADVANCED TRAINING OF PUBLIC EDUCATION STAFF, Uzbekistan



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## **SYSTEM OF METHODS FOR FORMING PROFESSIONAL WORLD VIEW IN PUPILS BASED ON CHEMICAL KNOWLEDGE**

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### **ABSTRACT**

The article discusses the importance of the formation of the professional worldview of students, as well as the role and influence of chemical knowledge in the formation of the professional worldview of students, the achievement of a broad professional worldview based on chemical knowledge.

The socio-economic changes taking place in our country have led to the search for the formation of the professional worldview of students. The vacant "ideological space" of the recent past was not completely filled with positive content, which negatively affected the formation of students' identity in schools.

In modern conditions of civilizational development, the formation of the professional worldview of students occupies one of the leading places. Worldview - ensures the development of an integral personality, capable of consciously and critically interacting with the outside world. Many domestic and foreign scientists consider it expedient to accumulate static knowledge in the process of intellectual development of a student in the educational process, the formation of dynamically structured systems of mental actions, differentiated and individualized programs.

**Key words:** worldview, pedagogical goal, professional worldview, career guidance education, professional polytechnic thinking, elective learning, electronic form, learning objectives, learning activities.

### **INTRODUCTION**

Today, the most pressing issues are the radical improvement of the education system, the definition of target areas for the training of highly educated specialists, in particular, the continuous improvement of professional skills and knowledge of teachers.

It is no coincidence that the Address of the President of the Republic of Uzbekistan to the Oliy Majlis on the most important priorities for 2020 emphasizes the relationship between science and education, education and socio-economic life.

Since human capital is at the heart of the education system, its proper distribution, effective use and targeted orientation, we must organize the system of preschool, general secondary and higher education in a holistic way with all stakeholders, all actors in the educational process. is one of the most important tasks.

In the organization of professional orientation of students in the teaching of chemistry, pedagogical goals for each lesson should be clearly developed.

The pedagogical goal is to anticipate the outcome of the collaborative work of the educator and the student. The pedagogical process, no matter how complex and long it may be, begins with defining a goal. Other constituent parts of the pedagogical process (principle, content, method, means, form) are subject to the established purpose. They are selected according to purpose and coordinated with each other.

The most important part of the pedagogical process is the setting and implementation of learning objectives through infocommunication, which is a modern pedagogical method, in which the teacher decides what to achieve at the end of the lesson, to explain the new topic through information technology, to master the content and as a result target.



## REFERENCES AND METHODOLOGY

The problem of forming a professional worldview is personality, the scientific view of the world, the methodology of cognition studied philosophers P. Alekseev, V. Andrushchenko, L. Guberskiy, I. Dobronravova, S. Kirilenko, I. Lakatos, G. Platonov, A. Studied by Spirkin et al.

The topic was the formation of students' scientific outlook. Bugaev, M. Golovko, S. Goncharenko, L. Reflected in Zorina's research.

According to VN Maksimova, professional polytechnic thinking is based on the system of scientific and polytechnic knowledge, general technical principles of production, polytechnic skills, design skills. "The content of this knowledge is not preserved in the structure of polytechnic concepts in the first place, but in this polytechnic concept the form changes, transforms, taking into account the objects whose properties are strengthened" [3].

The process of reasoning according to S.L. Rubinstein's general theory of psychological thinking is the analysis and synthesis of what is separated as a result of analysis, and then the abstraction and generalization that are their product [4, p- 28]. In considering different types of thinking, S.L. Rubinstein's conclusion is important because it explains the existence of different forms of thinking, including professional thinking: it also depends on the personal characteristics you find "[4, p-367].

## DISCUSSION

Effective implementation of professional-cultural relations, career guidance in students is associated with the productivity of his thinking process. We consider it as a result of the influence of the following factors.

Time factor. The process of real thinking takes a long enough time (the difficulties in studying thinking are due to this very factor). The process of thinking can be interrupted, the process of solving a specific problem can move from being understood to being incomprehensible ("disappearing") and sometimes takes a long time and is formed with difficulty.

In psychology, thinking is understood as the activity of a subject interacting with an objective being. About this S.L. Rubinstein said, "The process of thinking is first and foremost the analysis and synthesis of what emerges as a result of analysis, followed by abstraction and generalization, which are their derivatives. The laws of the interaction of these processes with each other are the essence of the basic internal laws of thinking"[4].

S.L. As Rubinstein points out: "Thinking takes place in generalizations and leads to generalizations of a higher order" [4, p-113]. Generalization is divided into elementary and scientific forms. In this case, the elementary forms of generalization, as he points out, are carried out independently of the theoretical analysis.

S.L. Rubinstein distinguishes practical thinking from theoretical thinking and understands it as a process that takes place during practical activity and is directly focused on solving practical problems. At the same time, thinking that focuses on solving abstract theoretical problems, separated from practical activities that are only indirectly related to practice, is considered theoretical thinking. Thus, in his view, practical and theoretical thinking differed in the tasks set before them. In some cases, "practical thinking, that is, thinking included in practical activity, should be used according to the nature of the problems it has to solve, as well as the results of abstract theoretical activity. Theoretical thinking is a complex form of practical thinking that enters as a component [4].

L.S. Vygotsky gave the following classification of thinking: figurative, vivid-figurative, and vivid-figurative [1].



Figurative thinking is a process of cognitive activity aimed at reflecting the important properties of objects (their parts, processes, events) and the essence of their structural interaction [1, p-210].

Type of thinking, which is based on the subsequent modification, replacement and generalization of the subject content of the images that form the transformation of the images of perception into imaginary images, the figurative-conceptual reflection of being [1; 209-210-p.]. An important distinguishing feature of this type of thinking is that the thought process in it is directly related to the thinking person's perception of the environment and cannot take place without it. One can see the solution of a problem directly by thinking vividly and manipulating thoughts with images.

The implementation of professional-cultural relations is associated with the ability to properly plan pedagogical educational work, to establish relationships with parents, to properly analyze their profession, to strive for innovation and creativity.

In the organization of vocational education:

- The emergence of social or personal needs for the acquisition of certain theoretical and practical knowledge and career choice;
- The need to acquire theoretical and practical knowledge in a particular field;
- Determining the content of student learning activities;
- The presence of factors of interest in the profession is important in the organization of student learning activities.

## RESULTS

All of the above factors must be taken into account in the educational process, in the teaching of a particular subject. It also enriches the content of vocational guidance for students in extracurricular activities. Therefore, criteria for selecting the content of the work of vocational guidance of students in extracurricular activities have been developed.

The formation of professional polytechnic thinking is a complex process and slow, and depends on a person's general intelligence, practical skills, abilities and other factors. Therefore, the study of the content and structure of professional thinking requires a systematic approach. It is for this reason that we envisioned the process of professional thinking that takes shape in students as a whole, with a number of interconnected organizers, a system that forms a stable interacting and equal unit.

The practical component implies that the resulting solution must be tested in practice, as well as knowledge of tools, materials, technologies and the availability of constructive skills in their use. The methodological significance of the practical component is that the theory of fundamental knowledge and scientific polytechnic knowledge is formed mainly on the basis of generalized data in practical activities.

A systematic approach to the study of the formation of a professional worldview on the basis of chemical knowledge is to analyze the structure of professional polytechnic thinking in the current conditions of polytechnic development, suggests the need to enrich the structure of professional polytechnic thinking in order to be able to consider it as a holistic structure corresponding to the current level of technical development. Relying on a systematic approach then suggests the need to develop tools to develop all components of the identified professional polytechnic thinking structure in order to uncover a new quality [2].

A worldview is a system of views, assessments and figurative expressions of the world and the person in it, a person's attitude to the surrounding reality and himself, as well as the basic life positions of people, their beliefs, ideas, knowledge and principles of action.

Professional worldview is a system of worldviews, which is the basis of systemic factors, social values of a particular profession, a holistic thinking about professions, the conditions for effective



implementation of the formation of professional worldviews in students in school and education, based on chemical knowledge.

The choice of research methods was determined by the nature of the tasks to be solved. A set of methods was used during the study, including: theoretical-theoretical analysis and synthesis of the problem of the subject of study; study and generalize the existing experience in the formation of a professional outlook in education; empirical-diagnostics of the state of pedagogical objects (testing, observation, survey), sociology (survey), which constitute a pedagogical experiment. Processing of the results was carried out using qualitative analysis and mathematical statistical methods.

Experimental work was carried out in secondary schools of Navoi city, Pakhtachi district of Samarkand region, Hallaorol district of Jizzakh region and Almalyk city of Tashkent region. Chemistry teachers and students took part in it.

The reliability of the research results was ensured by the use of a set of methods appropriate to the purpose, object, subject and objectives of the study, the combination of qualitative and quantitative analyzes, the representation of samples of research participants, the methodological validity of initial research positions.

Circumstances to be protected:

1. Psycho-diagnostics, development and pedagogical correction of students, counseling and education of students and parents are carried out on the basis of students' professional outlook, chemical knowledge, generalized system of professional knowledge, views, beliefs, humanistic values and ideals.
2. Professional outlook, counseling and training of teachers and parents related to the professional tasks of psycho-diagnostics, pedagogical correction and development of students on psychological support of the educational process, elective learning that combines knowledge of psychological support of the educational process most effectively formulated in the context of targeted training organized in the form of a course. processes of professional and personal development, self-improvement and professional adaptation.
3. The use of problem-based learning and methods of socio-psychological training stimulates the process of professional-personal self-development, forms a professional outlook.
4. E-learning is organized continuously and sequentially throughout the entire period of teaching, as it is opened in the system of professional beliefs about the psychological support of the learning process, through pedagogical diagnosis, development and pedagogical correction of students. the conditions that ensure the unity of education and career guidance processes for teachers and parents create conditions for the independent development of students.

## CONCLUSION

Therefore, it is advisable to gradually define and implement the objectives of the subject through the use of information technology.

In the first stage, the general purpose of teaching chemistry is determined, and in the second stage, the goals of daily and current educational activities are determined. Learning objectives, identified and implemented in parts, are tabulated: in the column are prepared sections of the subject, as well as electronic forms and variants of the main types of intellectual activity of the student in mastering these sections are placed in computer memory. Determining the achievement of learning objectives can be done through an electronic assessment method.

Electronic organization of learning objectives and learning process and electronic determination of results accelerates and activates the work method. The development of professional thinking is also carried out at each stage.

Professional worldview is a system of worldviews, which is the basis of systemic factors, social values of a particular profession, a holistic thinking about professions, the conditions for effective implementation of the formation of professional worldviews in students in school and education, based on chemical knowledge.

On this basis, the theoretical significance of the study:

Defining the concept of "professional outlook of students"; determine the composition of the components of the student's professional outlook; development of technology for shaping the professional outlook of students; identifying criteria and indicators for shaping the professional outlook of school students.

The practical significance of the research is that the school provides technology to shape students' professional outlook. This technology is described in the guidelines for teachers and social work. The findings of the study can be used to improve the professional performance of professionals.

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