

# Improvement of Cognitive Mechanisms of Continuous Professional Development of Future Geography Teachers in Digital Education Conditions

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**Abstract:** This article discusses measures and principles of improving the cognitive mechanisms of professional development of future geography teachers in continuous education in the digitized era.

**Keywords:** Geography, method, cognitive mechanisms, digital education, professional development, pedagogical activity.

The education system is considered as the main driving force of world development and an important factor of sustainable development. Its improvement and high-quality organization, introduction of the mechanisms of providing students with guaranteed knowledge into the process of training is one of the priority directions. In our country, based on advanced foreign experiences, research is being conducted on creating an educational environment aimed at creating the necessary conditions for the continuous education system that allows students to realize their internal potential. At the same time, the need to train teachers who meet the requirements of the times is increasing in the higher education system.

Designing the educational process plays an important role in the teacher's pedagogical skills. The educational process is such a center that every thought and action of the teacher revolves around this center and returns to it. Each lesson makes its own unique contribution to the teaching process. The history of the emergence of pedagogical skill, the qualities of the component of educational activity, the teaching profession being considered one of the oldest professions, the emergence of pedagogical skill is also the emergence of teaching in a personal society, that is, the experience accumulated by people: teaching young people the first experiences in the field of work, customs, mental and moral theological knowledge: teaching to read and write after the invention of writing, revealed the emergence of the first schools that were established.

Today, when globalization and international economic integration are increasing, production cannot be imagined without the achievements of science. Because it is difficult to produce products that are in demand in the domestic and foreign markets without the application of intellectual potential, high-efficiency developments, and advanced innovative technologies. These are software training tools based on foreign experiences that help future young personnel acquire excellent knowledge.

To date, the lack of specific training on the effective use of the textbook has led to the fact that the future teacher, who has started working in an educational institution, cannot fully use the opportunities of the geography textbook. Preparation of future geography teachers to use the textbook is a continuous process, which is carried out throughout the training in the classroom, in the process of independent research activities of students. In the training of a modern teacher, an important place should be given not only to the acquisition of professional knowledge, but also to the formation of skills of professional importance, because the level of mastery of skills determines the professional skills of the teacher. Great opportunities for knowledge of statistical methods and the ability to use them are provided by educational and pedagogical practice. In educational practice, future geography teachers use statistical methods to describe and analyze a large amount of factual material collected about certain natural or socio-economic objects or phenomena.

Our research is based on methodological approaches aimed at creating a single space for educating the personality of a modern geography teacher with a high level of geographical culture, who is ready to solve real problems of practical pedagogical activity. Based on the study and assessment of existing methods of organizing extracurricular activities of students of pedagogic faculties, modern ways of solving pedagogical problems in teacher training were determined. It was found that it is possible to create a socio-pedagogical environment with targeted practical activities. Foreign scientists have conducted a number of scientific works on the scientific-methodical importance of developing the creativity of future geography teachers in the use of software educational tools. For example, N.I.Lapin, B.Farberman, G.K.Selevko, K.Angelovsky, M.V.Klarin, E.M.Paciulan, A.K.Ellis, M.B.Kinney and A.Nicholls conducted a number of scientific research works on the problems of pedagogical innovations and preparation for innovative activities. Teaching students these skills involves activating the students' personal sphere. The process of personality development of the future teacher increases his level of professional maturity, so it is important for the future teacher to understand that using the geography textbook in the lesson is an integral, mandatory component of his professional activity. The main stage of professional training of future geography teachers for the use of textbooks in the classroom is pedagogical theory, which reveals the complexity of the professional development and development of the teacher's personality. At the same time, their use is necessary for conducting various psychological and pedagogical studies (studying the relationship of phenomena, studying similarities and differences in samples on a certain basis, studying the dynamics and trends of the development of the phenomenon, making classifications and etc).

Regional scientific-methodical, public and educational institutions participate in the organization and conduct of extracurricular activities in geography. Scientific-practical conferences, methodological seminars, meetings, and skill classes are held. Cooperation agreements with schools, regional and city educational institutions, educational management bodies of various levels allow the implementation of joint educational and scientific projects. Mandatory participation of students in these events allows gaining experience in the field of practical solution of geographical issues. Having the techniques and methods of planning, diagnosing and correcting the educational process, as well as research and reflexive skills develop the ability to solve pedagogical problems.

In the current conditions of the development of our country, the modernization of higher pedagogical education requires the introduction of new approaches to the training of specialists, modern methods of teaching, effective technologies for organizing the educational process, which fully provides the fundamental scientific foundations of the science. In this process, the improvement of professional training of future geography teachers, the requirements for their multifaceted professional competence, in particular, the formation of their readiness for continuous professional development, has a special place.

The general methodology of teaching geography develops theoretical and methodological issues, that is, studies the methods of self-research of the subject, in which the main attention is focused on the development of educational goals. The content of geography education is developed based on the identified educational goals. The general methodology is divided into two parts:

- natural geography teaching methodology;
- teaching methodology of economic and social geography.

Conducting and solving the problem of designing educational activities on the basis of pedagogical technology is the demand of the times. In the new pedagogical technology, it is necessary to implement the teaching system traditionally implemented in higher educational institutions on a scientific basis. Knowledge, skills, and creative activity formed by students in the process of experience are the product of the pedagogical process. Today, information technologies are widely used in geography education. Technical tools, television, computers are rapidly entering education. With the development of science and technology, the requirements for geography in secondary schools are also increasing. In order to fulfill these requirements, it is necessary to improve the forms and methods of teaching. This accelerates students' cognitive activity, encourages them to think and make scientific observations, and helps to understand the connections between geographical events and phenomena they are studying and life.

Modeling pedagogical situations in seminars helps to familiarize the future geography teacher with the peculiarities of the pedagogical process, its logic, the nature of the teacher and students, and the system of their relations. This type of seminar serves to form theoretical knowledge and skills of using the geography textbook in the lesson. When developing the criteria for evaluating the level of preparation for using statistical methods, we took the position that solving professional and social problems in a certain field requires the formation of three main components from a graduate of a higher education institution:

- cognitive (use of theory and basic concepts);
- activity (professional skills and qualifications);
- motivational (awareness of the importance of using statistical knowledge and skills in solving professional problems, the presence of constant interest in this activity).

We believe that the key to successful elimination of conflicts between psychological-pedagogical and methodological-theoretical preparation for scientific-practical application of the educational process of training future geography teachers and continuous qualification improvement is a systematic approach. A system is a logically organized set of elements that have a common purpose, are interconnected, interdependent and create a certain integrity and unity. Local traditions of training student-geographers show that statistical methods are an important component of training a future geography teacher, but this problem is not given enough attention in modern scientific works.

The extreme diversity of the pedagogical situation helps the pedagogue to effectively influence the students in any pedagogical situation, in other words, creative behavior. Developed pedagogical techniques help the teacher to show himself deeper and more clearly in the pedagogical activity, to reveal the good and important things in his personality that he gave professionally when dealing with children. The perfect pedagogical technique frees up the teacher's time and energy for creative work. In the process of pedagogical interaction, it allows not to distract one's mind to find the necessary word or to explain the tone of unsuccessful work when dealing with children. Currently, new pedagogical technologies are being used in geography education and the scientific-methodological bases of their use are being developed. Geography education in this area relies on the achievements of the science of new pedagogical technologies. The development of the methodology of geography education is related to the development of new teaching methods, the improvement of complexes, and the use of advanced methods. Solving these problems largely depends on the methods used in pedagogical research.

It should be noted that the classification of teaching methods in different periods was always based on one single rule, that is, based on the sources of knowledge. Therefore, classification of methods according to the sources of knowledge is widespread in geography teaching methodology. The methods of conversation, lecture, working with cards, observation, experience, working with textbooks, working with statistical data are widely used in general education schools in one form or another. In recent times, the development of teaching methods has intensified. The classification of geography teaching methods according to the sources of knowledge has begun to be criticized, because these methods are classified mainly based on external signs and taking into account the educational activities of students.

The use of new educational tools has a positive effect on the formation of students' worldview and personal development. The technical means of teaching allow to achieve the set goal with the help of the teacher, to dramatically increase the effectiveness of the training sessions. At the beginning of the academic year, the teacher should make a plan for the use of technical tools or there should be a section for the use of technical tools in the calendar plan. According to this plan, it is necessary to prepare the equipment at the beginning of the week. Audiovisual teaching aids include educational films, telecasts, slide films, and slides. Using motion pictures in geography lessons. The use of films in geography lessons may vary depending on the subject of the lesson, the type of lesson and other situations and conditions. In the course of the lesson, movies can be used in their entirety, their sections and parts or clips can be used.

The use of discussions, debates, and dialogues in lectures, practical and seminar sessions allows to update knowledge in the field of using geography textbooks in class. Debate - includes

checking the ability of students to search for the truth based on the acquired knowledge and formed beliefs, the skills of debating complex problems are formed. As a rule, two or three questions are discussed. According to them, "small polemical groups" are formed - two for each question. One of them reveals the essence of the problem and offers its solution, and the other acts as an opponent, putting forward opposing opinions and his understanding of ways out of the situation. Success here largely depends on the teacher acting as director, his ability to create psychological comfort in the classroom, create an atmosphere of freedom and relaxation for seminar participants, and strictly adhere to the ethics of discussion. Based on methodological approaches and principles, a theoretical model of the process of preparing future teachers to use statistical methods was developed, which consists of interrelated blocks: normative-objective, theoretical-methodical, substantive, procedural and results evaluation, including three stages: information, systematization, research. Among the applied research methods, the following became decisive: theoretical analysis of psychological and pedagogical sources of research, description, synthesis, systematization, comparison and generalization of the analyzed data, pedagogical modeling and forecasting methods. The effect of the educational method is that such lessons are meaningful and interesting, and active participation of students is ensured. In the course of teaching, a wide path is opened to educate students and guide their scientific methodical work.

## References

1. H. Vahabov, F. Saidamatov, N. Eshpolatov. Development of pedagogical technologies used in geography education. Public education. 2007.
2. Vakhobov H. Current theoretical and practical problems of the geography of Uzbekistan. "Actual theoretical and practical problems of geography" Resp. Science and practice. conf. materials. T. 2006 b 3-7
3. Савельева М.Г. Использование активных и интерактивных образовательных технологий: методические рекомендации. Ижевск, 2013.
4. Haydarova S. USE OF ELECTRONIC PRESENTATIONS IN GEOGRAPHY LESSONS //Journal estestvennykh nauk. - 2021. - Т. 1. – no. 1.
5. Abdimurotov, Oybek Uralovich. "Possibilities of using interactive methods in independent learning of natural geography lessons." Academic research in educational sciences 3 (2020): 1306-1312.
6. <https://education-journal.org/index.php/journal/article/view/292>
7. <https://www.dissercat.com/content/formirovanie-professionalnoi-kompetentnosti-budushchego-uchitelya-geografii-v-protssesse-podg>
8. <https://cyberleninka.ru/article/n/professionalnaya-podgotovka-buduschego-uchitelya-geografii-k-ispolzovaniyu-uchebnika-na-uroke>