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READINESS OF A FUTURE GEOGRAPHY TEACHER TO USE ICT IN THE EDUCATIONAL PROCESS

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Abstract

The article is devoted to the current problem of professional training of a future teacher for the use of ICT in a geography lesson. The article describes the main features of the organization of professional training of future geography teachers for the use of ICTs, which form a complex of professionally significant teacher skills aimed at teaching students how to work with all ICT components. The article describes the possibility of theoretical and pedagogical training of future teachers for learning to use ICT in the lessons effectively, thanks to the use of discussion technologies that allow you to activate the cognitive activity of students, as well as update knowledge in the field of ICT use in a geography lesson. Also, I'll take a look at ICT for half an hour of self-work robots. Practical ikosuvannya IKT is possible at an hour of passing pedagogical practice in schools.

Key words: preparation; future geography teacher; ICT; professionally significant skills; learning process.

ГОТОВНІСТЬ МАЙБУТНЬОГО ВЧИТЕЛЯ ГЕОГРАФІЇ ДО ВИКОРИСТАННЯ ІКТ В НАВЧАЛЬНОМУ ПРОЦЕСІ

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Анотація

Стаття присвячена актуальній на сьогоднішній день проблеми-професійної підготовки майбутнього вчителя до використання ІКТ на уроці географії. У статті описані основні особливості організації професійної підготовки майбутніх вчителів географії до використання ІКТ, які формують комплекс професійно-значущих умінь вчителя, спрямований на навчання учнів прийомам роботи з усіма компонентами ІКТ. Описується можливість теоретико-педагогічної підготовки майбутніх вчителів, до навчання використовувати ІКТ на уроках ефективно, завдяки використанню дискусійних технологій, які дозволяють активізувати пізнавальну діяльність студентів, а так само актуалізувати знання в галузі використання ІКТ на уроці географії. Також розглядається опанування ІКТ під час виконання самостійної роботи. Практичне застосування ІКТ можливе під час проходження педагогічної практики в школі.

Ключові слова: підготовка; майбутній учитель географії; ІКТ; професійно-значущі вміння; процес навчання.

Statement of the problem. Currently, the process of informatization of the education sector is not only the use of information and communication technologies (ICT) in educational institutions, but also in improving the organization of the educational process, which is impossible without a competent teacher, is able to use ICT in their professional activities. Therefore, the ability to use a computer is one of the requirements that informatized society places on those who offer themselves in the labor market. That is why it is necessary to familiarize the future geography teacher with ICT tools and their software in a timely manner.

Analysis of recent research and publications. Today standards and models of training of specialists of different profile are being developed, the results of which are formulated in terms of competencies. This makes it possible to form students' readiness for

future professional activity, appropriate motivation of educational and cognitive activity, value attitudes to the process and results of such activity, necessary personal qualities, their general culture, as well as to avoid excessive detailing of students' educational achievements [3].

According to the Program of implementation of the competence-oriented approach in the educational process [2, p. 104], a future geography teacher should possess the following ICT competencies: Special (professional) competencies - the ability to use modern information technologies and specialized software and integrate them into the educational environment; ability to use appropriate software to solve professional tasks according to the specialization, and have the following Programmatic learning outcomes - to find, process, analyze and evaluate information related to professional activity, to use specialized software and modern means of storage and information processing.

Formulation of the goals of the article (statement of the task). To date, the lack of purposeful training in the field of effective use of ICT has led to the fact that the future teacher, when starting to work in an educational institution, is not able to fully utilize the full potential of ICT. The preparation of future geography teachers for the use of ICT is a continuous process and is carried out throughout the study in the classroom, during the students' independent research activities. In our research, we identify professionally relevant skills aimed at teaching students the use of ICT in geography lessons at school, as a condition for the development of individual abilities, his motivated desire for self-education, creative and responsible attitude to pedagogical activity.

Basic material. The modern teacher of geography should use ICT in the lesson not only to transmit ready knowledge to students, but also to teach to learn, to instill self-education skills, to develop creative abilities, individual personality traits, to arouse interest in studying geography. As a result of the productive use of ICT, students form a geographical culture, develop a scientific outlook.

In his scientific research Yu. Bykov proves that the use of ICT radically changes the role and place of teacher and student in the educational process, promotes the implementation of an individual approach in learning. In such a model, the teacher ceases to be simply a "repeater" of knowledge, but is the creator of modern, devoid of caution and preaching, teaching technologies. Informatization and computerization of the education industry is one of the most complex and important tasks of the state [1].

The analysis of the educational process in ZVO allows us to confirm that today the formation of ICT teachers' readiness for the use of future geography teachers is carried out at

the junior courses and so far is focused mainly on the formation of the level of trivial computer literacy and fragmented readiness of the future teacher for the use of ICT professions. Teachers who are able to qualitatively teach students the main subjects of the school program, using ICT, as well as to introduce them into the complex world of these technologies and to shape their information and computer culture, need to be specially trained in a pedagogical college, revealing and demonstrating to them potential opportunities of using ICT in the educational processes, both high school and school.

In this regard, we consider it advisable to prepare the future teacher of geography in view of the new role and appointment of a teacher to the information environment formed on the basis of integrated use of ICT in the study of different geographical disciplines as tools of cognition, visualization, learning process management and simultaneously as a means preparing students for the use of ICT in future professional activities.

In our research, we define professionally significant teacher skills that are aimed at teaching students the techniques of working with different types of ICT in the geography lesson, as a condition for the development of individual abilities, his motivated desire for self-education, creative and responsible attitude to pedagogical activity.

The following are the professionally relevant geography teacher skills in ICT use:

1) organization of work on ICT, taking into account the possibility of its application in geography lessons of certain topics;

2) organization of work with electronic maps, taking into account their connection with the topic under study, its semantic load, determining the types of tasks that students can perform on the map;

3) organization of work with the computer test system of questions and tasks in accordance with the objectives of the lesson and taking into account their classification: by source of knowledge, type of activity, degree of complexity, form of execution and registration of results of work;

4) organization of work with illustrative and visual components created with the help of ICT (diagrams, diagrams, graphs, illustrations), based on the selection of tasks for students focused on the logical operations of analysis and synthesis, classification and systematization, comparison and evidence.

Teaching students these skills involves updating the personal sphere of students. The process of personal development of the future teacher increases the level of his / her professional maturity, so it is important for the future teacher to realize that the use of ICT in the geography lesson is one of the components of his / her professional activity.

It is advisable to use discussion technologies in the classroom as part of the professional training of future geography teachers in the use of ICT. The use of discussions, dialogues in lectures, practicals and seminars allows to update knowledge in the field of using ICT in the geography lesson. Discussion - involves testing students' ability to find the truth based on their knowledge and beliefs, developing skills to discuss complex problems. As a rule, two or three questions are brought up for discussion. According to them, "small polemical groups" are created - two for each question. One of them reveals the essence of the problem and proposes its solution, while the other acts as an opponent, puts forward counter-arguments and their understanding of ways out of the situation. Success here largely depends on the teacher acting as the director, on his ability to create psychological comfort in the classroom, the atmosphere of freedom and relaxation of the participants of the seminar, strict adherence to the ethics of the discussion [3].

We consider the discussion as a dialogical communication of the participants, during which the formation of practical experience, joint participation in discussing and solving theoretical problems. Students are given the opportunity of equal and active participation in the discussion of theoretical positions, the proposed solutions, in assessing their correctness and validity, at the same time it is necessary to express their thoughts accurately, actively defend their point of view, to reasonably deny, to refute the erroneous position of a classmate.

It is advisable to include didactic and simulation games in the structure of seminars and practical classes, first of all modeling of pedagogical situations by which students will be able to activate cognitive activity. Modeling of pedagogical situations at seminars helps to familiarize the future teacher of geography with the features of the use of ICT in the pedagogical process, its logic, the nature of the activity of teachers and students, the system of their relationships. This type of seminars facilitates the formation of theoretical knowledge and the development of skills to use ICT in the geography lesson. From the forms of independent work of students aimed at forming a complex of professionally important teacher's skills to use ICT in geography lessons, we recommend the following forms:

- homework, coursework, containing elements of research in the field of application of ICT in geography lessons;
- introduction of elements of scientific search by means of ICT in practical and seminar classes;
- implementation of specific atypical tasks with the use of ICT research character.

Pedagogical practice is one of the stages of preparation of future teachers and belongs to the obligatory section of the main professional educational program of bachelor's degree

and is aimed at consolidating theoretical knowledge and acquiring the skills of their practical application. Pedagogical practice consists in further orienting students to pedagogical activity as a teacher of geography and is based both on the knowledge acquired in theoretical training courses and on the skills and learning acquired during their studies.

In the period of pedagogical practice, there is an opportunity to update and apply all the specific knowledge and skills on the use of ICT in the geography lesson. In this regard, we are allocated tasks that are solved in the course of pedagogical practice with the use of ICT:

- development of professionally meaningful skills by students, thereby forming general and special skills of students, through the use of ICT in the lesson;
- conducting different types of classes, using various pedagogical techniques and methods that activate students' educational and educational activities through ICT in the geography lesson;
- development of students' love for their chosen profession, desire to study special and pedagogical disciplines and improvement of professional training in the field of using ICT in the geography lesson;
- developing a creative, research-based approach to using ICT in the geography lesson.

Due to its practical orientation, pedagogical practice enriches the first pedagogical experience of the future teacher, and also provides the first experience of using ICT directly when teaching geography at school. In the process of practical work, students' intellectual needs and cognitive interests are actualized, and professional ICT skills are intensively developed.

Conclusion. Thus, the realization of purposeful professional training of future teachers of geography for the use of ICT, contributes to the formation of students' professional beliefs in the need to use ICT in the lesson of geography as one of the conditions for organizing the pedagogical process. A modern geography teacher must have professionally relevant ICT skills to teach students how to work with all components of ICT. Learning and using ICT helps to increase the future geography teacher's readiness for professional activity, to achieve higher results in their work, because the combination of traditional teaching methods with modern information opportunities allows students to learn the material much more effectively, increases their activity in the lessons.

References:

1. Bykov V. Yu. Vidkryte navchalne seredovyshche ta suchasni merezhni instrumenty system vidkrytoi osvity [Open learning environment and modern open-source networking tools] // Naukovyi chasopys NPU imeni M. P. Drahomanova. Seriya № 2.

Kompiuterno-oriiientovani systemy navchannia: zb. naukovykh prats. Kyiv: NPU imeni M. P. Drahomanova. 2010. № 9. S. 9-15. URL: http://nbuv.gov.ua/UJRN/Nchnpu_2_2010_9_4. (in Ukrainian)

2. Bibik N. M., Yermakov I. H., Ovcharuk O. V., Pohorila I. L., Pometun O. I. Kompetentnisna osvita: vid teorii do praktyky [Competency education: from theory to practice] // Navchalno-metodychna seriia «Vidkrytyi urok. Osnovna shkola», vyp. 3-4. Kyiv: Pleiady, 2005. 120 s. (in Ukrainian)

3. Zhaldak M. I., Ramskyi Yu. S., Rafalska M. V. Model systemy sotsialno-profesiinykh kompetentnostei vchytelia informatyky [Model of the system of social and professional competences of the teacher of informatics] // Naukovyi chasopys NPU imeni M. P. Drahomanova. Seriia № 2. Kompiuterno-oriiientovani systemy navchannia: zb. naukovykh prats. Kyiv: NPU imeni M. P. Drahomanova, 2009. № 7 (14). S. 3-10. (in Ukrainian).