CHAPTER 3
THEORY AND METHODS OF VOCATIONAL EDUCATION

METHODS OF PREPARATION OF FUTURE PRIMARY SCHOOL TEACHERS FOR IMPLEMENTATION OF THE CONTENT OF EDUCATIONAL BRANCHES OF "NATURAL" AND "CIVIL AND HISTORICAL" IN THE CONDITIONS OF DISTANCE LEARNING

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Annotation. The article highlights the methodological features of the organization of training of students majoring in "Primary Education" in distance learning. On the example of such disciplines as: "Fundamentals of Science and Civic Education", "Methods of teaching the educational field" Civil and Historical", "Methods of teaching the educational field "Natural" is shown the organization of pair and group forms of work on their study in Google Meet, use of interactive board Jamboard, application for the current assessment by means of Kahoot, it is also described the method of conducting virtual tours using the Google Arts and Culture application. Particular attention in the process of synchronous and asynchronous modes of student learning is paid to the organization and coverage of the results of research project works on various topics, performed both individually and in pairs. Important in the organization of high-quality preparation of students for the course "I explore the world" (both full-time and remotely), is their ability to operate the application. Google Art and Culture. Thus, in the methodology of teaching natural education, students, mastering the theoretical and methodological principles of this process on the materials provided, learned with this application to organize their own virtual tours with students and predict post-excursion work. Timely feedback between the teacher and the higher education seeker is also important. Qualitative success of students during distance learning is based on the joint and comprehensive efforts of the administration of the educational institution, teachers and students, support staff. For scientific research in the context of the researched problem, in our opinion, it will be valuable to investigate the introduction of open world-class software products for teaching students majoring in "Primary Education", interactivity.

Keywords: training of future teachers, educational fields "Natural" and "Civil and historical", distance learning.
JEL Classification: JEL I0; I20
Formulas: 0; fig.: 0;tabl.:1; bibl.: 25

Introduction. The introduction of quarantine restrictions in the field of education has pushed the pedagogical community to seek new forms, methods and means of teaching students at different levels. In this regard, attention to distance learning has increased from educational institutions of various forms of ownership, which provided educational services mainly in person. This led to the direct development and application of the latest educational programs, Internet resources, the creation of electronic libraries, retraining for distance learning. This technology in quarantine has proven to be one of the most effective in terms of access to equal education, coverage

of the largest number of students in subject areas of knowledge, the ability to properly train professionals in any field. For future primary school teachers, the quality organization of distance learning in their preparation for professional activities in general and the implementation of the content of educational areas of the State Standard of Primary Education [1] in particular, is of paramount importance.

At the heart of distance learning is the independent work of the learner, who is able to control himself, can work on schedule, having a set of special learning tools (high-speed Internet, laptop, etc.) and the ability to contact the audience and teacher. In the context of training future primary school teachers, where significant curriculum credits are allocated to classroom teaching and teaching practice, the problem of distance learning has become particularly acute. Therefore, it is important to create such an educational environment in which the individual curriculum of the student will be implemented, the scope of his work and teacher will be fixed, the main goal of the Standard of Higher Education of Ukraine of the first (bachelor) level in specialty 013 "Primary Education" will be fulfilled [18].

Literature review. In the context of our study, the achievements of scientists can be presented in the following areas: 1) the content of disciplines that provide training for future primary school teachers to work in the profession and methods of teaching them; 2) opportunities for distance learning for quality mastery of these disciplines. In the first direction, we find valuable the work of Barrett M. [2] Niemi R.G. et al [3], Brander P. et al [4], Gollob R. et al [5], for the formation of the content of civic education in Ukraine, methods of forming civic competence in future teachers (Mompoint-Gaillard P. [6], David L. [7], Kodotchigova M. [8], Vasiutina T. [9]) and their preparation for the formation of this competence in students (Vasyutina T. [10]). Regarding the second direction, long before the pandemic in the world and domestic practice there is a lot of research related to the peculiarities of the organization of distance learning (Aud S. [11], Burgstahler S.H. [12], Moiseeva Y.]), comparative analysis of the results of its introduction in education and business (Kubatko O. V. and others [14], Kulaga I.V. and others [15]), difficulties in implementing distance education in Ukraine (Tolochko V. . [16], etc.), software for it (Thee Learning Guild's Handbookof e-Learning Strategy [17]), etc.

The purpose of the article . To highlight the methodological features of distance training of future primary school teachers to implement the content of educational areas "Natural" and "Civil and Historical".

Methods. In our study, the following methods were used : analysis of modern experience in the organization of distance learning in higher education institutions; forecasting the use of Google services and applications as an aid to the Moodle system in order to improve the quality of the educational process; survey of students on the effectiveness of the forms of work, methods and tools used.

Results. Comparative studies of scholars of various specialties show that distance learning, which is based on an open educational platform (such as Moodle) and complemented by modern services for synchronous and asynchronous work, can be as effective as classroom. Yes, Google forms, Kahoot! [19]. To complement the material of the topic are interesting Google Art and Culture, videos from the YouTube channel

in the form of QR-codes. For simultaneous (synchronous) work, Google Jamboard [20], Google Meet are effective for mastering the material from the discipline . Thus, it is possible to say that if the selected digital resources and applications meet the objectives of the lesson, then, as shown by our observations and the results of current and final certification of students, the quality of learning natural, social and methodological topics will increase.

In the process of distance learning of disciplines that prepare students for the implementation of the content of educational areas "Natural" and "Civil and Historical", increased attention was paid to the quality of accompanying materials to lectures and practical classes. With clear and vivid presentations with photos of real students studying the integrated course "Exploring the World" (the content of which is formed by the above areas of the State Standard of Primary Education) and videos in the form of QR-codes according to the topic, the teacher gives students the opportunity to such an unusual learning format (Google Meet) to understand all topics easily, clearly and quickly. Particular attention is paid to video materials that provide an opportunity to understand a natural phenomenon ("Universe. Earth - the planet of the solar system", "Earth's atmosphere") or the educational process at school (for example, children's simulation of volcanic eruptions for methods of studying natural content in the course of YADS).

With the Kahoot! future teachers have the opportunity in small groups to independently create tests on various topics of the educational component "Fundamentals of Science and Civic Education". In this way, they once again learned the material of the topic and at the same time learned to work with the service. For example, according to a survey of students, testing their knowledge of "Plan and Map" with this service is a very interesting experience, because the program is modern and has many features: the use of pictures in surveys, which have two groups: quiz and truth / falsehood; link to YouTube video, where you can choose a certain segment of playback, interesting rating and bright interface, etc. (Polishchuk V., etc.) [21, p. 258].

Using the Google Jamboard application has ample opportunities to organize pair and group work while controlling the teacher in Google Meet. For example, studying the topic "Plant Groups", students receive links in the chat to their Jamboard and simultaneously work on four interactive whiteboards: "Forest Plants", "Steppe Plants", "Reservoir Plants", "Meadow Plants". At this time, the teacher has the opportunity to monitor the quality of work, make corrections, help students if necessary. In this way there is a synchronous interaction, with the possibility of general discussion in Google Meet. According to future teachers, such a service is interesting to work with, useful for developing skills of cooperation and mutual organization in remote conditions. Among the shortcomings of this application, students pointed out the inability to discuss in the process of working directly with members of a particular group, because they were heard by everyone who was active in Google Meet. As for the teacher, the disadvantage of working with this application is the significant time spent on preparatory work for the lesson.

Important in the organization of high-quality preparation of students for the course "I explore the world" (both full-time and remotely), is their ability to operate the

application Google Art and Culture. Thus, in the methodology of teaching natural education, students, mastering the theoretical and methodological principles of this process on the materials provided (Vasyutina T. [22]), learned with this application to organize their own virtual tours with students and predict post-excursion work.

The organization of project activities of both students and teaching them to organize this activity in students (Vasyutina T. [23]) with the help of digital resources and applications, also revealed both positive and negative sides. On the positive side, higher education students spent time together looking for interesting information, conducting experiments, demonstrating the ability to lead a constructive discussion, the ability to plan their work and time (because some projects were long-term). The difficulties they encountered were related to communication problems with their project partner due to the lack of a stable Internet and ignorance of the programs needed to work with the collected videos to prepare the final presentation of the final results remotely (Misyuk M. [24 , p. 147]).

Discussion. According to the analysis of domestic experience in the organization and development of distance learning, most Ukrainian higher education institutions with the introduction of quarantine restrictions use the open educational platform Moodle for the organization and maintenance of distance learning. According to its structure, training courses are built in the form of a modular system and contain the following elements: theoretical material (lecture texts), practical tasks (tasks, questions, tests for self-examination) and knowledge tests (tests, virtual laboratory and course work, etc.), videos (video lectures) (World experience, [15, p.24-25]). In our case, to ensure compliance with the group schedule, recording the work of teachers and students of the dean's office, the content of Moodle is supplemented by video lectures, which should be held only (!) In Google Meet from a corporate account. As our experience has shown, only some of the students in the class are active, the rest are passive students, at best with the camera on. Therefore, to qualitatively prepare students for the implementation of the content of educational areas of the State Standard of Primary Education, we have supplemented the educational platform with additional software products that we used in parallel and which, in our opinion, improved the educational process, improved the quality of work and students. Such software products were: Jamboard, Art and Culture, Forms, Kahoot !, QR-codes. Some examples of their use and forms of work with them are presented in table 1.

Conclusion. Thus, the study allows us to state that distance learning of disciplines that prepare future teachers to implement the content of educational areas "Natural" and "Civil and Historical" can be effective only with the active participation of students in the educational process. Such activity can provide a selection of additional software products to the main one with which the higher education institution works, which will include interaction in group and pair work, implementation of projects, the opportunity to present the results of their work during video chat. Timely feedback between the teacher and the higher education seeker is also important . Qualitative success of students during distance learning is based on the joint and comprehensive efforts of the administration of the educational institution, teachers and students, support staff.

Table 1. Methodical features of the organization of distance learning by bachelors of primary education of disciplines of natural and professional orientation

Educational components (disciplines)	Topics of classes where Google applications were used and forms of organizing student activities	Project works and forms of organization of students' activities
Fundamentals of science and civic education	Jamboard application. Pair: "Plan and Map". Group: "Fruits and seeds", "Natural groups". Individual: "Man as a biological and social being", "Inventions of mankind". Art and Culture application "Inventions of mankind", "Ecology and geography of plants"	Individual projects. "Influence of abiotic factors on the germination of seeds of monocotyledonous and dicotyledonous plants (for example, beans and wheat)", "Precipitation and their species". Weather "," Air masses and fronts. Cyclones and anticyclones "," Local, zone and summer time. Calendar "," Evidence of the Earth's rotation around the axis "," My school local history corner ". Paired projects. "Exogenous and endogenous relief processes", Group projects "Continents and oceans of the Earth",
Methods of teaching natural education,	Jamboard application. Group: "Methods and techniques of teaching the educational field" Natural ", "Methods of working with cartographic manuals"	Individual projects. "Methods of organizing a virtual tour with the application of Art and Culture in the natural museums of the world and post-tour work"
Methods of teaching the educational field "Civil and Historical"	Jamboard application. Individual: "Methods of organizing project activities of students of social science content"	Individual projects. "Didactic opportunities of the educational platform http://www.living-democracy.com.ua in teaching junior high school students the basics of civic education"

* The table was created by the author based on the analysis of his own experience of teaching these disciplines during distance learning 2020/2021 academic year.

For scientific research in the context of the researched problem, in our opinion, it will be valuable to investigate the introduction of open world-class software products for teaching students majoring in "Primary Education", interactivity.

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