THE COURSE “FUNDAMENTALS OF DISTANCE LEARNING IN PRIMARY EDUCATION” AS A COMPONENT OF LIFELONG EDUCATION OF PRIMARY SCHOOL TEACHERS

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The modern information society raises new requirements to the process of training of a future primary school teacher as a component of a lifelong education system. An important role in providing lifelong learning is given to distance education, which promotes self-motivation and self-actualization, enhances independent cognitive activity, and contributes to the acquisition of fundamental knowledge and the formation of skills to use it in professional activity.

In this regard, the article analyzes the course “Fundamentals of Distance Learning in Primary Education” that contributes to the training of future primary school teachers to the successful use of distance learning technologies in the system of lifelong education. The course consists of two modules. The first module provides theoretical information on a distance learning technology in primary education, and the other – individual research assignments. Also, the paper presents the topics of lectures, practical classes and independent activity and describes the system of student performance evaluation.

In general, the course facilitates the development of systems thinking of future specialists and the learning of theoretical, methodological and practical problems of forming, functioning and development of a lifelong education system.

Key words: distance learning, lifelong education system, fundamentals of distance learning in primary education.

Problem statement. In the modern information society, when technologies require the new system of thinking, school should teach students communication skills, the ability to work with any information and to think flexibly, depending on a situation. Therefore, modern primary school teachers must possess innovative teaching technologies that requires a school reform according to the State National Program “Education” (Ukraine XXI century) [8] the National Doctrine for Development of Education in Ukraine [9], the Conception of Continuous Pedagogical Education [1], the National Standard of Primary Education [2], the Regulations on Distance Learning [7].

The use of distance learning technologies (DL) in all areas of educational activity requires from a modern pedagogical higher education institution the creation of appropriate conditions for forming readiness of future primary school teachers for DL in a lifelong education system. In our study, we define primary school teachers’ readiness for DL as possession of knowledge and skills to study in a lifelong education system.

Recent studies analysis. The analysis of recent studies and publications, in which the attempts to solve to the problem are found, shows that modern scholars pay much attention to the introduction of distance learning into the educational process, particularly in the process of continuous education of primary school teachers.

The problem of primary school teachers training for professional activity in the modern information society was studied by V. Bondar, N. Bibik, M. Hordiichuk, O. Kyvliuk, O. Komar, R. Motsyk, I. Osadchenko, L. Petukhova, O. Snihur, O. Sukhovirsykyi, O. Shyman et al.

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The issues of lifelong learning and open learning, organizational and pedagogical principles of specialists distance training are reflected in the scientific works by V. Bykov, B. Vulfson, O. Karelina, I. Kozubovska, V. Kuharenko, N. Nychkalo, A. Maliarchuk, P. Stefanenko, H. Syrotenko et al.

The scientific and pedagogical principles of distance learning were developed by domestic scholars V. Kuharenko, V. Oliynyk, V. Rybalko, N. Syrotenko, P. Stefanenko et al. Some aspects of the content and organization of distance learning were studied by our scientists: M. Besedina, E. Blinov, K. Vlasenko, V. Gura, N. Datsun, M. Us.

In particular, H. Kravtsova, M. Vinnyk, Y. Tarasich in their scientific publications defined conceptual tasks of the development of distance learning systems and technologies of their introduction, analyzed the current state of distance education in Ukraine, studied the impact of the quality of electronic educational resources on the quality of educational services which use distance technologies of learning [3; 4].

The works of foreign (R. Bell, J. Blumstuk, D. Keegan, J. Koumi) and Russian (O. Andreyev, M. Moiseeva, E. Polat, B. Soldatkin, A. Hutorskoy et al.) scholars are of significant interest for the study of distance education.

Defining unresolved parts of the general problem. However, a holistic vision of an integrated discipline “Fundamentals of Distance Learning in Primary Education”, which aims to form readiness of future specialists for DL in a lifelong education system, has not been developed yet.

The purpose of the article is to analyze the content of the course “Fundamentals of Distance Learning in Primary Education” which is taught to future primary school teachers in a lifelong education system (http://sno.udpu.org.ua/).

Main material statement. The DL technologies that are based on information and pedagogical technologies change the functions of a future primary school teacher in the educational environment of universities, increase the requirements for knowledge, skills and personal qualities. Therefore, great importance is attached to the questions of forming students’ readiness to solve learning and self-study tasks, search, analyze, and present the necessary information using computer tools and technologies. There are objective reasons for the formation and development in a future specialist structural components of learning activity (learning tasks, learning actions, reflection, control), psychological readiness (activity, motivation to self-study, interest in educational and professional activity) and competence in information and communication technologies.

A central place in the process of forming necessary competencies of a primary school teacher is occupied by the course “Fundamentals of Distance Learning in Primary Education” which is included to the curriculum of preparing students and master’s students of the Primary Education Faculty of Pavlo Tychyna State Pedagogical for specialities 7.01010201, 8.01010201 “Primary Education” in a current academic year.

The total amount of the course is 54 hours, including 6 hours of lectures, 12 – practical classes, 36 – independent and individual work. The form of the final control is a pass-fail exam.

The goal of the course is to build readiness of future specialists for DL in a lifelong education system.

The main objective of the course is to train future professionals for the successful use of distance learning technologies in a system of lifelong education of primary school teachers.

In accordance with the goal and objectives of the course “Fundamentals of Distance Learning in Primary Education” and considering the complex of requirements for a primary school teacher in the DL [1], we formulated the requirements for knowledge and skills of future primary school teachers that should be acquired and practised in the process of mastering the discipline.

On learning theoretical material of the course, a future primary school teacher must know:

– nature, kinds, functions, tasks, models and technologies of DL on the modern stage;
– development of DL in pedagogical theory and practice;
– conditions of organization of DL in a pedagogical higher education institution;
– requirements for the use of DL technologies;
– basic principles of DL in a system of lifelong education of primary school teachers;
– forms and methods of organizing DL in a system of lifelong education of primary school teachers.

On completing the tasks for practical classes and independent work, a future primary school teacher should be able to:
– be familiar with DL models and technologies;
– work with a web-site of lifelong education of primary school teachers;
– organize and conduct DL in a system of lifelong education of primary school teachers;
– develop distance learning courses for primary school teachers, including such elements as forms, glossary, tests, etc.;
– create electronic didactic tools using hypertext, multimedia technologies and technologies of Web 2.0;
– search and select information on the Internet.

The content of the course “Fundamentals of Distance Learning in Primary Education” is determined in accordance with the goal and objectives of the course. The structure of the course consists of two modules.

Module 1 includes two content modules which reflect the topics of lectures, practical classes and independent work (see Tables 1, 2 and 3).

Table 1.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Full-time</th>
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<tr>
<td>Topic 1. Distance Learning in Modern Educational Environment</td>
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<td>Topic 2. Organization and Holding Training of DL at a University</td>
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<td>Topic 3. Main Competencies of a Primary School Teacher Required for DL</td>
<td>8 2 2</td>
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<td>Topic 4. Didactical Foundations of DL Organization in Primary Education</td>
<td>8 2 2</td>
<td>3 3</td>
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<td>Topic 5. Ways of Support of DL in Primary Education</td>
<td>10 2 2</td>
<td>4 4</td>
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<tr>
<td>Topic 6. DL Organization in a System of Lifelong Education of Primary School Teachers</td>
<td>12 2 5</td>
<td>5 5</td>
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<tr>
<td>Total Module I</td>
<td>54 6</td>
<td>12 18</td>
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<td>54 6</td>
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Structure of the Course
Lectures are the basis of teaching. In addition to lectures, there are practical classes and seminars on the most important issues of the course. Practical classes are supplemented by independent work of students with recommended literature, summaries, electronic resources and individual assignments set by a faculty member.

Module 2 offers individual research assignment (IRA): writing an abstract of a report on problems of primary education and post it on the forum for the discussion (http://sno.udpu.org.ua/blog/).

The students’ performance is assessed according to a rating evaluation system. Students earn a certain number of points for completing practical and individual research assignments, passing tests. The maximum number of points that a student can earn for completing assignments, is given in Table 4.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Hours</th>
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<tr>
<td>1. Distance Learning in Modern Educational Environment</td>
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<td>2. Organization and Holding Training of DL at a University</td>
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<tr>
<td>3. Main Competencies of a Primary School Teacher Required for DL</td>
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<td>4. Didactical Foundations of DL Organization in Primary Education</td>
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<td>5. Ways of Support of DL in Primary Education</td>
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<tr>
<td>6. DL Organization in a System of Lifelong Education of Primary School Teachers</td>
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Table 2.

<table>
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<th>Nазва теми</th>
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<tr>
<td>1. Requirements for the Tools of E-learning Organization</td>
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<tr>
<td>2. Main characteristics of e-learning solutions</td>
<td>2</td>
</tr>
<tr>
<td>3. Role of Information Technologies in Problem-Based Learning</td>
<td>1</td>
</tr>
<tr>
<td>4. Classification of Program Tools in DL</td>
<td>2</td>
</tr>
<tr>
<td>5. Comparative Characteristics of DL Platforms</td>
<td>1</td>
</tr>
<tr>
<td>6. The Problem of Choice of Commercial or Open Source Platform</td>
<td>2</td>
</tr>
<tr>
<td>7. Problems of DL Introduction</td>
<td>2</td>
</tr>
<tr>
<td>8. Standards in DL</td>
<td>1</td>
</tr>
<tr>
<td>9. Webinar “Oriented platforms as Means of Collective Interaction of Participants in DL”</td>
<td>2</td>
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<tr>
<td>10. General Characteristics of the System Moodle</td>
<td>2</td>
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<tr>
<td>...</td>
<td>18</td>
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</table>

Table 3.

<table>
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<th>Module Earned During the Course</th>
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<td>CM 1</td>
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<td>T2</td>
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<td>10</td>
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Table 4.

In Pavlo Tychyna Uman State Pedagogical University (see http://dls.udpu.org.ua) a distance course “Fundamentals of Distance Learning in Primary Education” (see fig. 1, 2 or http://sno.udpu.org.ua/дистанційне-навчання) has been developed on the basis of the above-mentioned interactive content of the discipline and in accordance with the Regulations on eLearning Certification at Universities and Ministry of Education and Science of Ukraine [2].
Only registered users can see the content of the webpage “Distance Education”. The access to the course “Fundamentals of Distance Learning in Primary Education” is granted only to certain groups (future primary school teachers) which have been authorized in a distance education system of Pavlo Tychyna Uman State Pedagogical University (see http://dls.udpu.org.ua).

We will focus on the content of the course.

1. Information Stage. The goal is to help students adapt to a new activity, choose the profile of training, take their place in the training group.

2. Introductory Stage. An introductory class is conducted and its goal is to provide students with the information about the distance course and a system of lifelong education of primary school teachers which involves the following steps:
   1) online registration in the system of lifelong education (see http://sno.udpu.org.ua) and activation of access to the course by an administrator;
   2) study of the characteristics of distance courses;
   3) description of the main interface elements of a distance course;
   4) communication among the participants of educational activities of a distance course;
   5) modular and final control in distance course.

During studying a distance course in a system of lifelong education of primary school teachers, the students are offered the following types of resources: the webpage, the task-answer file, workbooks, glossary, seminar, webinar, test, forum, and so on.

3. Training Stage. At this stage students are involved in the following activities:
   1) studying training modules;
   2) watching videos and presentations on topics;
   3) completing IRA’s.

All theoretical material for each topic is designed in the form of web resources. If necessary, students can use the distance course glossary and electronic versions of training manuals. At a
scheduled time the lecture material is shown to students by means of an online web conference (an integrated module BigBlueButton is used), stored, and can be re-watched.

![Screencast](image.png)

**Fig. 2. Webpage of the Course “Fundamentals of Distance Learning in Primary Education”**

4. **The Modular Testing.** The goal of this stage is to test and evaluate the knowledge and skills of each topic.

   The modular control has two components: the control of the independent practical assignments completion and taking tests.

   In the first case, students load on the distance course webpage completed practical assignments in the form of files; a lecturer checks these works, assesses and analyzes, and then sends the results to students for revision or rewriting if necessary.

   Tests are carried out on all topics. Each student, taking a test on any topic, has one attempt and 8 min. to complete it, after he or she can see the number of correct answers and earned points.

   In the distance course “Fundamentals of Distance Learning in Primary Education” tests on each topic consist of 10 questions developed in a closed form: select one or several answers.

5. **The Final Testing.** The goal of this stage is to test and evaluate the knowledge and skills of the course as a whole. During this stage, students take closed-form tests, consisting of 15 questions. To complete the test they have only one attempt.

6. **Conclusions, analysis and reflection.** This stage combines two complementary processes: the analysis of a student’s activity by a lecturer and by other students, reflection (the analysis of their own activities) students. The teacher concludes the study of the distance course, examines the activity of students, and calculates the final score.

**Conclusions.** Thus, the analyzed training course “Fundamentals of Distance Learning in Primary Education” takes into account the following peculiarities of the DL organization in a system of lifelong education of primary school teachers: the shift from teaching to independent cognitive activity of students; the necessity of forming abilities of distance interaction by means of information technologies (compulsory computer literacy of teachers and students); the change of interaction between the subjects of educational activity caused by the advent of information technologies which leads directly to changes in the educational process; flexibility where residence
and class hours do not matter, since the classes can be conducted at time and place convenient to everyone.

We believe that this training course contributes to fundamentalization of education, the development of systems thinking of future specialists, the study of theoretical, methodological and practical problems of forming, functioning and development of a lifelong education system, building readiness of future specialists for DL in a lifelong education system.

**Prospects for further studies** are in improving the course “Fundamentals of Distance Learning in Primary Education” in all forms of organizing the educational process of a pedagogical higher education institution by means of modern DL technologies.

**СПИСОК ВИКОРИСТАНИХ ДЖЕРЕЛ**


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НАВЧАЛЬНА ДИСЦИПЛІНА «ОСНОВИ ДИСТАНЦІЙНОГО НАВЧАННЯ У ПОЧАТКОВІЙ ОСВІТІ» ЯК СКЛАДОVA СИСТЕМИ НЕПЕРЕРВНОЇ ОСВІТИ ВЧИТЕЛІВ ПОЧАТКОВОЇ ШКОЛИ

Сучасне інформаційне суспільство ставить нові вимоги до процесу підготовки майбутнього вчителя початкової школи як складової системи неперервної освіти. Важливе місце в забезпеченні неперервної освіти відводиться дистанційному навчанню, яке сприяє підвищенню мотивації до самоосвіти та самореалізації, активізації самостійної пізнавальної діяльності, набуттю фундаментальних знань і формуванню умінь і навичок їх застосування у професійній діяльності.

У зв’язку з цим у статті проаналізовано навчальну дисципліну «Основи дистанційного навчання у початковій освіті», що сприяє підготовці майбутніх вчителів початкової школи до успішного застосування технологій дистанційного навчання у системі неперервної освіти. У структурі дисципліни виділено два модулі. Перший модуль має на меті розкрити теоретичні відомості щодо технології дистанційного навчання у початковій освіті, а другий – передбачає виконання індивідуального науково-дослідного завдання. Також у статті наведені теми
Учебна дисципліна «Основи дистанційного навчання у початковій освіті» як складова системи неперервного навчання вчителів початкової школи

Сучасне інформаційне суспільство поставляє нові вимоги до процесу підготовки майбутніх учителів громадської освіти як складової системи неперервного навчання. Важливу роль в забезпеченні неперервного навчання відводиться дистанційному навчанню, яке сприяє підвищенню мотивації до самоналаштування та самореалізації, активізації самостійної познавальної діяльності, придобуттю фундаментальних знань і формуванню умінь і навичок їх застосування в професійній діяльності.

В контексті цього в статті проведено аналіз дисципліни «Основи дистанційного навчання у початковій освіті», що сприяє підготовці майбутніх учителів початкової школи до успішного застосування технологій дистанційного навчання в системі неперервного навчання. В структурі дисципліни визначено два модуля. Перший модуль має за мету розкрити теоретичні засади та навички використання технології дистанційного навчання в початковій освіті, а другий — формування та підготовка необхідних навичок використання технологій дистанційного навчання у початковій освіті.

Ключові слова: дистанційне навчання, система неперервної освіти, основи дистанційного навчання у початковій освіті.