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Research paper

Resource of distance learning technology in the formation of the professional competence of specialists in document science and information activities

Nataliia Yakymenko[1]*, Olena Zndanova-Nedilko[2], Tetiana Isaienko[3], Viktoriia Voshchenko[4]

[1]Poltava National Technical Yuri Kondratyuk University, Ukraine
[2]Poltava National Pedagogical V. G. Korolenko University, Ukraine
[3]Poltava National Technical Yuri Kondratyuk University, Ukraine
[4]Poltava National Technical Yuri Kondratyuk University, Ukraine
**Corresponding author E-Mail: N_o_ja@ukr.net*

Abstract

The peculiarities of installing distance learning into the process of formation of professional competence of specialists in document science and information activities are analyzed; the terms "distance learning" and "distance education", "e-learning" are characterized, their uniqueness being demonstrated; integral, general and special professional competences, which are formed in the process of distance learning are listed and characterized. It is emphasized in the article that the use of the distance learning system in the process of preparing specialists in documentation and information activities makes it possible to carry out quasi-professional activities.

Keywords: *distance learning, professional competence, specialist in document science and information activities.*

1. Introduction

The relevance of the implementation of distance learning into the process of training specialists in document science and information activities is based on the achievements of modern information and telecommunication technologies which is an integral part of the postindustrial society functioning. Modern societies tend to be man-centered and based not so much on the use of previously acquired knowledge, but on their transformation and generation of new ideas both in the process of training and in the process of production activity. In addition, we believe that distance learning enables to increase the interest of the educational process in general, since it takes into account the ideas of humanization, democratization and individualization of the educational environment. Therefore, in our opinion, the revival of the efficiency of the scientific community to the problems of organization, implementation and methodological support of this latest interactive form of education appears to be quite natural.

2. Problem Search

The evident peculiarity of distance learning in the process of training future specialists in document science and information activities is that all participants of the educational process have a certain amount of personal and partly even professional experience in working with electronic and paper documents, communication with the use of electronic resources (for example, students who have received the diploma of the "junior specialist" according to the specializations "Paperwork", "Information activity of enterprises", "Library science"), and, consequently, self-organization skills, self-discipline, self-motivation, self-education, a certain level of development of value-motivational, intellectual, functional and activity areas.

Yu. Zuban, S. Ivanets, V. Lyubchak, M. Mazur point out that distance learning in Ukraine is often equated with E-learning, but, according to the scientists, "the concept of E-learning is wider and involves the use of electronic means for studying in various forms (daytime, evening, correspondence, individual, external to provide separate training sessions, advanced training of all levels, individual, independent work of students, in pre-university training), while distance education is the teaching of the students who are remote from faculty and interact through electronic means in synchronous and asynchronous modes (via chat, audio and video conferencing, email, forums, social networks, etc.)" [9].

It should be noted that the categories of "distance learning" and "distance education" are not identical, in particular, differentiating them, Ye. Polat emphasizes that "Education is a broader concept that includes: education as a value; education as a system; education as a process; education as a result. The process of learning is the basis of the educational process, which is characterized, first of all, by interactivity, scilicet, the interaction of the student and teacher, as well as that of students with each other" [10].

Scientists stress that "distance learning can be as effective as classroom learning, if methods and technologies meet objects, it there is an interaction between students, and a timely feedback between a teacher and a student" [5].

In addition, as R. Sharan rightly points out, "this is a new, independent, progressive form of learning that has great potential. The scope of the possible application of distance learning in institutions of higher education is quite broad: from integral training of specialists to separate courses and fragments of didactic support during different types of classes" [11].

N. Haysynyuk in his dissertation studies the pedagogical principles of training documentologists, briefly describing distance edu-

cation as an "intensified, flexible system of training documentologists based on the latest information technologies ... which essentially fulfills the tasks of consolidating and testing the acquired knowledge in the course of study, and is practiced not only for correspondence students" [4].

It should be noted that, at the moment, expanding the tools of the environment of distance learning enables not only consolidation and testing, but also qualitative teaching of new material, deepening, systematization of knowledge, acquisition of professional competences through the implementation of practical or creative tasks.

The expediency of using the resource of distance learning in the process of training managers of information systems (where, in fact, belong future experts in documentation and information activities) is stated in the monographs by O. Matviyenko [7, 8].

The scientist interprets distance education "as a complex of educational services provided at any distance from educational institutions through a specialized informational and educational environment" [8]. The author accentuates that distance learning is "social in its basis and informational and communicative by content ... is aimed at the comprehensive development of personality, which determines the target settings of educational activities and requires the reference to psychological and didactic problems" [8].

However, these are only sporadic remarks as for possibility of using the resource of distance learning in the system of training future document specialists. Systemic studies of the problem of forming the professional competence of specialists in document science and information activities in the process of distance learning have not been detected in the sources worked out.

Hence, the distance learning form, in our opinion, enables greater effectiveness of the learning process, enhances and improves the educational level throughout life, that is, it tends to the renewed concept of the educational space: not life-long education, but lifelong education.

Detailed analysis and synthesis of the materials of the sources studied give grounds to assert that in the scientific literature the features and regularities of introducing distance learning into the process of preparation of future specialists in document science and information activity have not been characterized yet, the specificity and efficiency of using the tools of distance learning in the process of formation of professional competences of specialists in document science and information activities have not been analyzed. We believe that due to the systematic and systematic work with the distance educational resource, a number of competencies that are professionally significant for a document and information specialist are formed. Relying on the education and qualification characteristics and job description of the positions that can be occupied by a specialist of specialization "Documentation and Information Activity", own experience of teaching practice, taking into account the draft standard of the first level of higher education (bachelor) for the specialty 029 "Informational, library and archival sciences" (so far the document is not officially confirmed), educational-professional programs of the specialization in question, we systematize the competencies singled out. For a more concise, compact representation, we compress the textual comment of each of the competencies.

1. Integral - the ability to solve complex specialized tasks and practical problems in the field of information, library and archival sciences: application of theoretical knowledge, practical skills in the sphere of social communications under complex and uncertain conditions.

2. General:

2.1. Knowledge and understanding of the domain of professional activity, practical application of knowledge.

2.2. Ability to think abstract, analyze and synthesize.

2.3. Ability to search, process, analyze information from various sources.

2.4. Ability for interpersonal communication and team work.

2.5. Ability to communicate in a native and a foreign language orally and in writing.

2.6. Skills to use information and communication technologies.

2.7. Ability to assess and ensure the quality of work performed.

2.8. Ability to act socially responsible and civically consciously.

2.9. Ability to learn and to be up-to-date instructed.

2.10. Ability to adapt to and to act in a new situation.

3. Special (professional, substantive):

3.1. Ability to provide creation, search, selection, analysis, evaluation, systematization, monitoring, organization, storage, distribution and use of information and knowledge in any format.

3.2. Ability to apply knowledge in organizational and managerial activities.

3.3. Ability to adhere to professional values, ability to maintain business communication with all agents of the information market: users, partners, authorities and management, mass media.

3.4. Ability to use the methods of systematization, search, preservation, classification of information for different types of content and media.

3.5. Ability to use modern applied computer technologies and software for solving specialty tasks.

3.6. Ability to analyze the patterns of flow and array of documents and electronic data.

3.7. Ability to introduce innovative technologies for the production of information products and services, improving the quality of information services for library and archive users.

3.8. Ability to create clear, concise, accurate management documentation in accordance with current standards.

3.9. Ability to solve problems of legal regulation in the field of social communications.

3.10. Ability to design and create information systems, resources, products, systems and services.

3.11. Ability to master e-management technologies and electronic document circulation.

3.12. Ability to use PR-technologies, to organize social communication systems in the conditions of modern information and technological infrastructure.

3.13. Ability for further education with a high level of autonomy.

3.14. Ability to apply the principles of designing databases, information systems, social networks, digital libraries and archives, ability to create, fill and provide the functioning of websites and web communities on the Internet.

3.15. Ability to demonstrate erudition in the field of document science and information activities.

The functional, technological and document-resource affinity of information centers, libraries, and archives enables to justify the necessity of organizing the preparation of a universal information specialist who can work skilfully in any type of document-communication institutions. Such an approach in worth becoming the basis for defining in the standard of education of a bachelor in specialty 029 "Informational, library and archive science" special competencies aimed at developing a dynamic combination of knowledge, abilities and practical skills, ways of thinking and moral and ethical values, which determines the ability of future specialists to successfully carry out professional activities related to the identification, creation, organization, dissemination and storage of information in electronic and non-electronic formats [12].

It is obvious that the basic skills for the formation of the above competencies will be the skills of working with information and communication technologies of all participants of the educational process: both scientific and pedagogical staff, and students. The quality of distance learning directly depends on the abilities and competence of the teachers, available educational, methodological, technical, program resources, as well as the efficiency of their administration.

Using the system of distance learning in the process of training specialists in document science and information activities, in our opinion, makes it possible to carry out quasi-professional activities, which, according to I. Demchenko, "is educational in its form and professional by content. It involves the transformation of the con-

tent and the forms of educational activities into their adequate generalized content and forms of professional activity" [3].

Thus, the synthesis of the analyzed scientific works, as well as the questioning of students, scientific and pedagogical staff, practitioners and own experience, enables to distinguish the following pedagogical conditions that, in our view, will make possible the formation of the professional competence of a future document scientist in the mode of the DL:

• professional self-identification of future specialists in document science and information activities;
• motivation for productive learning and learning in real and virtual learning environments;
• active systemic introduction of professionally oriented types of educational activities, taking into account the didactic principles "from simple to complex" and "from theory to practice";
• openness, professional orientation of both virtual and real educational environment of a higher educational establishment;
• scientific and methodical interaction of information and communication triad "student – teacher – specialist – practitioner";
• accessible, high-quality technical, informational, educational-methodical provision of the educational process in general and in the mode of the DL in particular;
• orientation towards the idea of continuing vocational education and self-actualization of professional competencies in the work of the future document specialist, including the application of the resource of the DL.

Based on the theoretical generalization of the above mentioned pedagogical aspects, taking into account the rationality of the practice of their implementation, let's distinguish the leading organizational and pedagogical conditions, the introduction of which, in our opinion, will increase efficiency and, in general, will enable the formation of professional competence of future specialists in document science in the process of DL:

1. Formation of professional self-identification and motivation of future documentologists as a component of successful professional genesis;
2. Creation of the appropriate informational, educational and methodical support of the educational process, which is based on the laws of didactics and has a professional practically orientated direction in general and in the DL mode in particular;
3. Implementation of organizational, personnel, teaching-methodical, technological components of mastering the technology of the DL in an open educational environment of an educational institution by scientific and pedagogical staff as well as students majoring document science.

Let us characterize each of the conditions, determine their role and place in the process of forming the professional competence of the document specialists in the process of DL.

Formation of professional self-identification and motivation of future documentologists as a component of successful professional genesis.

One of the most important directions of reforming higher school is the professional orientation of the training of future specialists based on the complex of educational and professional motives, interest in the future professional activity, the formation of professionally significant personal qualities, value orientations, which will become the basis for the professional genesis. Scientists single out two directions of the person's professional development: the formation of internal means of professional activity, which includes special knowledge, skills, motivational aspects of professional activity, professional features of character, ability for professional communication, reflection, intellectual and creative qualities, adequate individual style of professional activity; formation and assimilation of external (social) means of professional activity, accompanied by the accumulation of certain social regulators in professional community: mastering the social space of the profession, relevant materials and information means of professional activities [6].

We are convinced that the formation of internal means of professional activity relies on the individual and personal qualities of the future specialist in document science and information activities and the formation, assimilation of external (social) means is associated with the organizational and pedagogical conditions created in the process of training future specialists.

Consequently, professional self-identification and motivation of future specialists in document science and information activities arises as a need for professional activity, readiness to solve professional tasks, the desire to dynamize professional genesis due to the appropriate personal orientation, their own creative resources, informational teaching and methodical support. Lack of the elements of future professional activity in the educational process leads to a decrease of interest in the future profession, formalism in mastering the knowledge, which contradicts the basic ideas of the competence approach. De facto, professional self-identification is based on professional interest, which is purpose, means and result of the formation of a competent specialist.

Let's pay attention to the creation of the appropriate informational, educational and methodical support of the educational process as a second condition which is based on the laws of didactics and has a professional practically guided orientation in the sphere as a whole and in the DL mode in particular. Under the didactic conditions of forming the professional competence of a specialist in document science and information activities we understand the totality of teaching means of real and virtual educational environment, by which the integral productive educational process aimed at achieving certain didactic objectives is held. Didactic conditions are the environment for the realization of the didactic principles that are based on understanding the content of professional competencies, the essence of teaching and education. We believe that it is the unification of general-didactic principles and principles of didactics, inherent only to the virtual educational environment in the mode of DL that makes it possible to create the appropriate organizational, pedagogical and didactic conditions for a qualitative professional training of a specialist in document science and information activities.

The organizational aspect of the implementation of the DL technology into the process of forming the professional competence of future document specialists includes the following components: a license to prepare specialists by correspondence form of training in those areas of training, which distance is applied to; the decision of by the Academic council of the educational institution regarding the introduction of distance learning forms in certain areas of training within the scope of the licensed amount of the correspondence training or in advanced training programs; regulations on the DL in an educational institution approved of the Academic council; the presence of a unit in the education institution with appropriate personnel, material and technical, financial background, which organizationally and technologically supports distance learning; the presence in the educational institution of the methodical commission that: establishes the correspondence of the web resources of educational disciplines with the requirements for the organization of the educational process and recommends them for the use in the educational process; determines the availability of web resources in each direction, advises the Academic council on the possibility of introducing a distance learning form in certain areas of training, advanced training programs.

The scientific and methodological basis of the DL includes: methodical (theoretical and practical) recommendations as for the development and the use of pedagogical-psychological and ICT DL; criteria, means and systems of DL quality control; conceptual, didactic and methodical content of web resources (distance courses) of the curriculum/training program.

In our own pedagogical activity, we also practice the creation of electronic anthologies containing digitized textbooks, articles, and other publications that contribute to the formation of the professional competence of a future documentologist. We place them on the platform MOODLE or at the request of a student; we send them to their email address. In pedagogical practice we have loaded a number of video materials onto the platform MOODLE: vid-

eo clips and fragments of TV shows, historical chronicles, supplementing the educational material.

The system's technical support for DL includes: hardware (personal computers, network equipment, uninterruptible power supplies, servers, equipment for video conferencing, etc.) that provide the development and the use of web-resources for training purposes, the management of learning process and the necessary types of training interaction between subjects of the DL in synchronous and asynchronous modes; information and communication basis with channel bandwidth, which provides all subjects of the DL of the educational institution with round-the-clock access to web resources and web services for the implementation of the learning process in synchronous and asynchronous modes; general and special-purpose software (including those for people with special needs) that should be licensed or built on open source software products; web resources of the disciplines necessary for DL provision may include: methodical recommendations for their use, sequences of tasks, control features; documents for planning the educational process (educational programs, educational thematic plans); video and audio recordings of lectures, seminars, etc .; multimedia lecture materials; terminology glossaries; practical tasks with methodical recommendations as for their implementation; virtual laboratory works with methodical recommendations as for their implementation; virtual simulators with methodical recommendations on their use; test-test packages for conducting control measures, testing with automated results checking, testing with a teacher's check; business games with methodical recommendations on their use; electronic libraries or links to them; bibliographies; a distance course combining the above-mentioned web resources of a discipline (program) with a single pedagogical scenario; other resources of the educational character.

Means of education are an element of teaching and methodical basis of the work of higher educational institutions. The idea of the complexity of using various teaching aids as one of the factors of competence and personality orientation in the process of preparation causes the necessity of justification and disclosure of their possible composition (components of the didactic-methodical complex), the content of each component and its functions. As the main object of the content illustration, let's take the discipline "Diplomatic protocol" for bachelors. In order to master the subject, we offer in the mode of DL, such methods of education as electronic anthologies and electronic abstract of lectures containing textual, video and audio material on particular topics, a methodical manual for practical works, thematic and modular tests, the glossary, the best samples of presentations previously downloaded by students.

The problem of providing didactic-methodical complexes that ensure the functioning of distance courses, with personal-oriented and competence orientation is solved by the creation of multifunctional individual tasks and tasks for independent work that enable simultaneously to take into account the plurality of the requirements of self-oriented organization of DL and to achieve the implementation of the competence approach. For example, in the course of studying the discipline "Foundations of Imageology" we offer students of the direction "Documentation and informational activities" to prepare within the framework of an individual creative task image-presentation of the future profession in the form of a video clip or in PowerPoint format. This form of work relies on imitation simulation, project method, research method.

The methodical support of the process of teaching academic disciplines in the DL mode is more dynamic and productive in comparison with the traditional analogue, as it is supplemented by interactive audio and video materials, enables to check quickly the level of assimilation of the material through various types of tests, to confirm and to deepen professional knowledge while performing independent, individual tasks, game exercises, to consolidate communicative skills of interacting in educational and professional environments both in real and in virtual, synchronous and asynchronous modes. In fact, there should be a live dialogue between the teacher and the student in the mode of the DL, which is mediated by the Internet resource. Work in a distance educational environment provides for the student's relative isolation, so teaching materials should take into consideration this circumstance and contain corresponding explanations, be attractive and accessible, that is ergonomically rational. Methodically competently selected and structured material of educational discipline stimulates and motivates to study, contributes to the formation of creative activity, professional competences, reduces didactic influences.

3. Conclusions

Consequently, distance learning makes it possible to achieve the fundamental goals of learning – it teaches to learn and effectively interact both in the process of teaching and learning, as well as in the process of production, "to form the ability to purposefully master the skills, to find the necessary information, to develop the ability to cooperate in a team, to form a holistic worldview and perception of the world, to have an active life position, to strive for spiritual and physical harmony" [10].

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