UDC 371.134: 811.1/.2 + 81'24 (045) DANYLYUK Serhiy,

Doctor in Pedagogy, Professor Chair of High School Pedagogy and Educational Management Department, Bohdan Khmelnytsky National University at Cherkasy, e-mail: sedan@bigmir.net

THE ROLE OF INFORMATIZATION OF EDUCATION IN THE FORMATION OF FUTURE SPECIALISTS' PROFESSIONAL COMPETENCE

Informatization of education as a process of introducing information technologies in various fields of modern educational system is studied in the paper. Four global trends, conditioned by broad computerization and informatization of pedagogical systems, are singled out in the paper. Four ideas and tendencies inherent in the field of education and influencing education informatization are also singled out in the paper. Four sub-goals of the global goal of informatization of education are singled out in the paper. Two strategic goals of the process of informatization of education are defined. Three levels of entering by an individual the world of computer science and computer engineering are distinguished.

Key words: professional competence, professional training, future specialists, information-and-communication technologies, informatization of education.

Formulation of the problem. Modern education is impossible without the usage of all forms of information-and-communication technologies. One of the main applications of these technologies in the sphere of higher education is educational process. Information means, a variety of computer programs and electronic resources are used to study the proper information technology in teaching and other fields of knowledge, particularly, Philology.

Informatization of education as a process of introducing information technologies in various fields of modern educational system becomes more widespread and comprehensive.

Analysis of recent research and publications. A group of scholars (S. A. Zaytseva [1], L. A. Podoprigorova [2], M. M. Nymatulayev [3], L. K. Raitskaya [4], A. Shchukin [5], V. N. Vasilovskaya [6], R. K. Potapova [7] studied the role of informatization of education in the formation of future specialists.

The aim of the investigation is determined by the necessity to define the role of informatization of education in the formation of future specialists' professional competence with the help of usage of information-and-communication technologies.

Presenting the main material. Real informatization of society involves organizing teaching computer literacy, training and retraining of users, computerization of all stages of education from primary school to University and post-graduate education system, creating a network for retraining of workers, promote, especially among young people, a new information culture.

In the process of informatization of society the central place should be taken by informatization of education. The idea of developing new learning technologies, based on broad computerization and informatization of pedagogical systems, conditioned such global trends as [8, p. 5]: 1) development of global business infrastructure; 2) computerization and automatization of all branches of science, engineering and technologies; 3) changes in professional structure of society and attitude of people to labor; 4) information integration of education into the global system.

Among ideas and tendencies inherent in the field of education and influencing education informatization, one can single out the following ones [8, p. 5–6]: 1) humanization and humanitarization of education; 2) multi-level and advanced training; 3) continuity of education, the need to increase knowledge during the whole life; 4) socialization and professionalization of an individual.

Computerization of education is a process aimed at improving the quality of the content of education, performing researches and development, implementation, support and development as well as replacement of traditional information technologies with more efficient ones in all types of activities in the national education system of Ukraine.

The global goal of informatization of education is in radical improvement of the efficiency of the quality of education that meets the requirements of the post-industrial society. Such a goal is multifactorial and includes a number of sub-goals, in particular [8, p. 6]: 1) preparation of students for full and effective participation in all spheres of life in conditions of the information society; 2) improvement of the quality of education; 3) increase of the availability of education; 4) information integration of the national system of education to the infrastructure of the world community.

Informatization of education achieves two strategic goals. The first of them is to increase the efficiency of all types of educational activities through the usage of information and telecommunication technologies. The second one is to improve the quality of training of specialists with a new type of thinking, which meets the requirements of the information society [9, p. 134].

The introduction of information and telecommunication technologies has created new forms of educational activities, including distributed in time and space distance learning. Computerization has also affected relatively new formal theoretical approaches to working out new training courses, materials and methods.

As for "educational" directions of introduction of information technologies in the life of society, one should single out [10, p. 38]: a) changing the contents and functions of education, forms and methods of pedagogical activities in conditions of formation and development of the information society; b) positive impact of informatization means on the development of creativity skills and career guidance; c) educational impact of information technologies; d) construction of open learning architecture on the basis of information technologies; e) appearance of possibility of usage of multimedia technologies in education; f) further development of continuing education in conditions of formation and development of the information society; g) development and widespread use of electronic models of pedagogical teaching means, educational e-books and resources; h) establishment of developmental education based on the usage of information resources of society; i) introduction of information and telecommunication technologies in additional

education; j) combination of traditional and modern ways of learning in the information society; k) formation of teachers' information culture for work in all forms and levels of learning and teaching process; l) generation of new approaches to the management of higher educational establishments and evaluation of the quality of pedagogical labor; m) globalization and integration of educational services in the information society.

As a result of analysis of features of informatization of society and informatization of education the thesis is formulated that it is impossible to achieve the quality of teaching future philologists to act in the modern information society without the appropriate level of informatization of education. This statement is due to two main ideas [10, p. 40–41]: 1) the quality of modern educational process can be achieved only if in all forms and types of educational activities information and telecommunication technologies are applied. Their usage should match the needs of educational system; 2) informatization of education, the usage of means of informatization by University students in the learning process contributes to the development of necessary qualities of information culture, real involvement of future philologists to usage of information and telecommunication technologies both in future professional activities and in other areas of public life.

The implementation of social and economic reforms in Ukraine makes it necessary to build the information society, sets for the educational system the task of forming information culture for all citizens of the country and singles out informatization of the sphere as one of the most important directions of educational reform [10, p. 41]. Now for bringing up future philologists as individuals it is necessary to involve them in information-and-communication opportunities of modern technologies, to master the real information culture, opening the way for them to achieve one of the main goals of education: starting from the dialogue of cultures and people through the identification and development of creative potential of an individual to reach mutual enrichment and productive interaction of human communities [11, p. 4].

Therefore, the aim of studying computer science and items of information cycle by future philologists in higher educational establishments is the formation of their information culture, knowledge and skills to use information technologies in their daily work and their willingness to live and work in the information society. Professional skills are professionally developed business qualities, which not only affect the success in mastering the profession, but also the results of the work. For a philologist this is the ability to solve professional tasks of any complexity in the environment of information technologies.

In this paper we state the fact that the process of computerization of educational institutions is not stable, irrespective of socio-economic reforms and difficulties caused by them. Development of the information society requires new approaches in training specialists of all specialities in higher educational establishments and, of course, it did not lose its relevance for specialists of philological profile.

Distinguishing of three levels of entering by an individual the world of computer science and computer engineering is possible [12, p. 98]: 1) computer awareness (initial familiarity with computers); 2) computer literacy; 3) information culture.

Now high school in the process of teaching students often provides only their computer awareness, in the best case – their computer literacy. As for formation of future philologists' information culture, this problem should be solved in a more purposeful and complex way [12, p. 99].

Conclusions and prospects of further research. At the end of the paper we may say that bringing up the information culture of a specialist contributes significantly to the formation of his professional competence. Mastering special software products helps to analyze, to predict and to forecast different situations using the whole arsenal of computers and software. With the help of building information models of pedagogical processes and their analysis the achievement of gradual formation of professional competence becomes possible.

References

- 1. Zaytseva, S. A. (2004). Modern information technologies in education. Retrieved from http://sgpu2004.narod.ru/infotek/infotek2.htm (in Russ.)
- 2. Podoprigorova, L. A. (2003). Intenet usage in foreign language learning. Foreign languages at school, 5, 25-31. (in Russ.)

- 3. Nymatulayev, M. M. (2009). Internet and web-technologies application in foreign language learning activities. *Siberian association of consultants. Extra-mural scientific-and-practical conferences.* Retrieved from http://sibac.info/index.php/ 2009-07-01-10-21-16/1609web (in Russ.)
- 4. Raitskaya, L. K. (2001). Didactic and psychological fundamentals of Web 2.0 technologies application in higher vocational education: Monography. Moscow: MGOU. (in Russ.)
- 5. Shchukin, A. (2008). *Modern methods and technologies of foreign language teaching*. Moscow: Filomatis. (in Russ.)
- 6. Vasilovskaya, V. N. (2011). Benefits of Internet technologies using in foreign languages teaching. *Informatics, computational engeneering technics and education, 2 (4), 22-29.* (in Russ.)
- 7. Potapova, R. K. (2004). New information technologies and linguistics. Moscow: Editorial URSS. (in Russ.)
- 8. Abaluyev, R. N. (2002). *Internet technologies in education*. Tambov: TSTU. (in Russ.)
- 9. Grigoriev, S. G. (2008). *Informatization of education. Fundamentals*. Tomsk: Publishing House "TML-Press". (in Russ.)
- 10. Atanasyan, S. L. (2009). Formation of information educational environment of a pedagogical higher educational establishment (*Doctor in Pedagogy dissertation*). Moscow. (in Russ.)
- 11. Zakharova, I. G. (2003). *Information technologies in education*. Moscow: Publishing center "Academy". (in Russ.)
- 12. Branovskiy, Yu. S. (1996). Methodical system of teaching subjects in the field of Informatics to students of non-physics-and-mathematical specialities in the structure of multi-level pedagogical education (*Doctor in Pedagogy dissertation*). Moscow. (in Russ.)

DANYLYUK Serhiy,

Doctor in Pedagogy, Professor

Chair of High School Pedagogy and Educational Management Department,

Bohdan Khmelnytsky National University at Cherkasy,

e-mail: sedan@bigmir.net

THE ROLE OF INFORMATIZATION OF EDUCATION IN THE FORMATION OF FUTURE SPECIALISTS' PROFESSIONAL COMPETENCE

Abstract. Introduction. Informatization of education as a process of introducing information technologies in various fields of modern educational system is studied in the paper. Four global trends, conditioned by broad computerization and informatization of pedagogical systems, are singled out in the paper. Four ideas and tendencies inherent in the field of education and influencing education informatization are also singled out in the paper. Four sub-goals of the global goal of informatization of education are singled out in the paper. Two strategic goals of the process of informatization of education are defined. Three levels of entering by an individual the world of computer science and computer engineering are distinguished.

Purpose of the paper is determined by the necessity to define the role of informatization of education in the formation of future specialists' professional competence with the help of usage of information-and-communication technologies.

Results. As for global trends, conditioned by broad computerization and informatization of pedagogical systems, to them belong: 1) development of global business infrastructure; 2) computerization and automatization of all branches of science, engineering and technologies: 3) changes in professional structure of society and attitude of people to labor; 4) information integration of education into the global system. As for ideas and tendencies inherent in the field of education and influencing education informatization, among them there are: 1) humanization and humanitarization of education; 2) multi-level and advanced training; 3) continuity of education, the need to increase knowledge during the whole life; 4) socialization and professionalization of an individual. As for sub-goals of the global goal of informatization of education, they are: 1) preparation of students for full and effective participation in all spheres of life in conditions of the information society; 2) improvement of the quality of education; 3) increase of the availability of education; 4) information integration of the national system of education to the infrastructure of the world community. There are two strategic goals of the process of informatization of education. The first of them is to increase the efficiency of all types of educational activities through the usage of information and telecommunication technologies. The second one is to improve the quality of training of specialists with a new type of thinking, which meets the requirements of the information

society. As for levels of entering by an individual the world of computer science and computer engineering, they are: 1) computer awareness (initial familiarity with computers); 2) computer literacy; 3) information culture.

Originality. The results given in the paper are obtained for the first time.

Conclusion. Bringing up the information culture of a specialist contributes significantly to the formation of his professional competence. Mastering special software products helps to analyze, to predict and to forecast different situations using the whole arsenal of computers and software. With the help of building information models of pedagogical processes and their analysis the achievement of gradual formation of professional competence becomes possible. Future prospects of the study we see in the need to investigate different approaches to formation of future specialists' professional competence.

Key words: professional competence, professional training, future specialists, information-and-communication technologies, informatization of education.

Одержано редакцією 12.06.2016 Прийнято до публікації 18.06.2016