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E-MAIL USAGE IN THE PROCESS OF FORMATION OF MODERN SPECIALISTS' PROFESSIONAL COMPETENCE

The paper deals with the highlighting of the formation of modern specialists' professional competence in the aspect of the usage of such Internet technology as e-mail in the educational process. Attention is focused on the sphere of usage of this Internet technology in the educational process. This sphere embraces: students' communication in a foreign language in the course of any project as well as thematically oriented communication with a certain group of students from another higher educational establishments. Besides, the didactic potential of e-mail, which is used for educational purposes, is defined. As for the didactic potential of e-mail, we should say that a teacher and students can use e-mail as an Internet technology to carry out the transfer of organizational and educational information, training materials and assignments as well as comments to them. The teacher can communicate with students. E-mail may function in the format of a consultation. The effectiveness of usage of e-mail is explained by the fact that it increases the motivation of the learner as well as it makes it possible to carry out productive collective thinking. The essence of learning with the help of e-mail is revealed. E-mail is intended for receiving and transmission of information, digital information resources at long distances. The factors that determine the effectiveness of using e-mail as a modern innovative educational Internet technology are outlined in the article. The main advantages of the didactic usage of e-mail as a modern means of communication are also found out. A number of situations, typical of a teacher's work in the system of e-learning, is singled out. Simultaneously aims of usage of e-mail in the educational process are formulated. Common and different features between e-mail and traditional mail service are determined. Pedagogical conditions of usage of e-mail in the educational process are defined.

Key words: Internet technology; e-mail; professional competence; teaching process; a means of communication.

Formulation of the problem. Modern society is characterized by a period of significant influence of computer technologies that penetrate in all spheres of human activities, ensure dissemination of information flows in society, creating a global information space. An integral and important part of establishing a new education system, focused on entering the world information-and-educational space, is the process of computerization of education. This process is accompanied by substantial changes in pedagogical theory and practice of the educational process that are associated with making adjustments to the content of learning technologies, which should be adequate for advanced technical capabilities, and promote the harmonious joining people in the information society.

Analysis of recent research and publications. The analysis of scientific literature indicates that domestic pedagogy still not fully disclosed the potential of use of information-and-communication technologies (ICT) as a means of formation of specialists' professional competence.

The undoubted value to determine the nature and content of ICT competencies are works by V. A. Adolf, O. B. Zaitseva, I. F. Isayev and others. Analysis of theoretical research and practical experience of modern pedagogical activity shows that, despite of close attention to improving the quality of professional training of students, the problem of the use of ICT as a means of formation of specialists' professional competence still needs deeper study.

The essence of the informatization process which is widespread in education and greatly affects the dynamics of modern society is revealed in the works of a cohort of scholars (A. A. Verbitsky, T. P. Voronina, K. Colin, D. Bell, A. Toffler etc.).

The aim of the investigation is determined by the necessity to define the role of e-mail usage in the process of formation of modern specialists' professional competence.

Presenting the main material. Rapid exchange of written messages via e-mail becomes more and more popular. It is one of the key Internet technologies. E-mail being a technology of communication and communicative learning environment represents an asynchronous computer-mediated communication. Using e-mail, first, promotes effective communication between students, teachers and administration of the institution [1, p. 34].

Most frequently e-mail is used by students to communicate in a foreign language during any project, i.e. thematically oriented communication with a certain group of students of other educational establishments [2, p. 57]. It can also be used [3, p. 157]: a) to conduct private correspondence ("alone"); b) send a copy of a letter to others ("one-to many"); c) to conduct networking discussions, teleconferences in a delayed mode; d) to send news by specialized groups of users; e) to work with remote information servers, asking them information which is interesting for a user; f) to send faxes and telexes.

The essence of training via e-mail is to exchange texts. A teacher and students use the mentioned Internet technology to transfer organizational and educational information, training materials and assignments, and comments on them. A teacher can correspond with future professionals. E-mail may become a format of consultation. This technology can make learning targeted and individualized [1, p. 34].

Efficiency of use of the mentioned Internet technology is conditioned by the fact that, on the one hand, it increases motivation of a learner, making it possible to use English for real communication on a global scale that goes beyond the academic communication. On the other hand, e-mail allows to make productive collective thinking. This is evident especially when students interact to solve a problem together, using a foreign language as a means of communication. This feature is also very effective for language practice. When using e-mail as a means of communication, students can exchange messages and participate in discussions with their pals [4, p. 119].

The mentioned Internet technology is designed for reception and transmission of information, digital information resources (in the form of a text, graphics, a sound, images, software) at long distances. It is an asynchronous communication environment, which means: for receiving messages one shouldn't agree the time and the place of their receiving with the sender, and vice versa.

E-mail refers to means of remote access provided by computer networks. The main advantage of this means of communication is its simplicity of mastering and reliability of use [5, p. 112].

Sending e-mails to one or more subscribers in the local educational establishment network or via the Internet using special e-mail software is possible. These features of its work should be used to establish communication between teachers or educational programs and one or more students, regardless of their physical location [6, p. 40].

Bringing any messages and educational materials via e-mail is carried out almost instantly, thereby ensuring regular efficient communication of subjects of the educational process. To this Users' workplace should be equipped for this with hardware and software: a computer, a modem, a monitor, a keyboard, a mouse, network equipment and related software. Traditional basic computer training is quite sufficient for teachers' and students' free work in e-mail [5, p. 112].

This form of communication has obvious limitations as writing a large number of letters by a teacher creates a natural barrier to the widespread use of correspondence with students. In addition, this

event has a time factor, because students tend to lose interest in the correspondence, if the answer is written in a few days that will negate the positive effects of the use of e-mail [1, p. 34].

The mentioned Internet technology is widely used in education as one of the tools of communication of a teacher with students and their parents, colleagues from other educational establishments etc. It is a key tool of interaction between participants of the educational process in distance learning [3, p. 157]. Computer-mediated communication increases the participation of specialists in modern educational process to the maximum – up to 100 per cent [7, p. 170]. Students, who because of psychological reasons are reluctant to participate in a personal communication in the auditorium, are often motivated to communicate using electronic means of communication, especially using asynchronous technologies, which also include e-mail.

With sufficient determinism of training subjects in projects with e-mail or with its additional use it is recommended to give modern experts relative freedom of choice of a topic or direction of a discussion [1, p. 34-35].

Some situations typical of teachers in the system of e-learning are distinguished. However, attention is drawn to how the use of Internet technologies can improve efficiency of work.

Informing learners. In practice, modern specialists react to information if it is repeatedly (at least three times) duplicated. So, placing text ads with information (e.g., a reminder about approaching deadline of giving a report about the conducted work, a list of sources necessary to prepare for a seminar) on the bulletin board of an internet / intranet server, its simultaneous sending via mailing list and use of a phone turns to be quite effective [3, p. 157].

Communication with modern specialists, establishing feedback with the help of Internet technologies. The most traditional and most accessible means of communication with modern specialists in distance or integrated (blended) learning is e-mail. Usually, at the beginning of the correspondence (if teachers and students are not familiar with each other) a teacher sends students of his group a letter, which contains a brief description of the subject and the goals and objectives of training. A file with a short description of a teacher's professional biography (and perhaps also his photo) that animates the process of communication and makes it personified and sincere is often attached to such letters [3, p. 157].

Communication, a dialogue with modern specialists is one of the most important components of a teacher's activities in e-learning system. The use of Internet technologies, on the one hand, facilitates communication as compared with correspondence by means of using traditional mail (which, in fact, solves the problem with feedback and timely transmission of information to modern professionals), and, on the other hand, - raises the problem of the use of special methods of communication for people who interact with each other through correspondence [3, p. 162].

Writing credit works and receiving feedback. It is a teacher's time consuming work to check credit works when he faces the task not only to analyze a student's work, but also write his comments on the results of this analysis. E-mail combines simple tools added to the e-mail program (e.g. automatic citations of a received text message one is going to answer) with an integral part of any text editor (e.g., MS Word) – underlining, highlighting or bold slanted font, "game" with the font size and color, etc. [3, p. 162].

Thus, e-mail provides the following features to improve the quality of the educational process in the formation of modern specialists' professional competence: organization of a confidential communication between students and a teacher, a teacher and parents; exchange of information between distributed by interests student or teaching staff and conduction of joint academic, search or research work; the implementation of project method involving students and teachers from different regions and countries [8, p. 42]. The mentioned technology is also widely used to coordinate and establish feedback in distance and open learning [6, p. 40].

With the help of e-mail you can organize so-called "virtual classrooms". For example, you can use the Internet mode "mailing list», in which software set in the server enables joint communication of subjects of the learning process. The number of different mailing lists (discussion groups) can be very large and it is only limited by equipment capacity. Rules and ways of

subscribing to sending and receiving messages are explained in a created academic group. Then an academic team can get to work. Each message sent to a discussion group by any participant is automatically sent a letter server to all participants. The main participant in the discussion of all students' questions and answers is definitely a teacher.

E-mail can be used for non-verbal communication of subjects of the educational process: modern specialists do not have to be in a certain place at the time of connection. That's enough for them to master a simple text editor and several commands for sending, receiving and manipulating the received and transmitted information.

Modern specialists can use e-mail to obtain necessary educational information from the Internet for consultation, self-preparation and mutual learning. When conducting seminars it's recommended to use e-mails in the following sequence: a teacher's "performance", participants' of a seminar "performances" on the topic, "discussion", a teacher's "final word" (the whole process takes place in the epistolary genre, with the help of writing). The application of e-mail during a seminar according to the scheme "seminar of mutual learning", "seminar-discussion" and for consultations when texts of tasks, extracts from recommended literature, etc. are sent to modern specialists [5, p. 112-113].

E-mail is a very important Internet technology. In addition, it is just a mass means of electronic communication, because it can take or send a message to another two dozen international networks, some of which have online service (i.e. direct connection to the Internet) [9, p. 23].

This technology is used for such purposes [10, p. 130]: 1) forwarding messages to the other user; 2) transmission of the same message to multiple users; 3) sending messages to several organizations according to a definite list; 4) sending a text file; 5) sending a binary file, which contains a computer program, graphics, a document worked with the help of a text editor, electronic table or even audio- and video; 6) spreading of an "electronic magazine"; 7) transmitting "hot news" and ads via the Internet.

It is very similar to the postal service. Correspondence is prepared by a user at a work place or by a mail program or a text editor. Then a user has to run a program sending mail, which sends a message to the sender's mail server. This server, in its turn, sends a message to the addressee's mail server where a special program deals with mail sorting and its dispatching to the boxes of end users. Mail servers are permanently connected to the network, while correspondence participants' computers can establish a connection with them when it is necessary [9, p. 23].

E-mail is also used as a means of access to programs of remote computers and network services, for example, for receiving files of certain documents or for getting response to requests from the network databases. Such a computer can perform a narrow range of functions, then it is called EBB (electronic bulletin board, BBS), or wide range of functions, which includes sending messages at long distances connecting other computers, then we can speak about the telecommunications network. In this case, users must be subscribers of the electronic network. Thus, for a fee, they are able to send an e-mail partner information at any convenient time and therefore require the information for themselves. This relationship is also referred to as "e-mail" [10, p. 130].

The basis of any postal service system is an address system [9, p. 23]. In any user in the computer memory a space is allotted which is called a mailbox. Each mailbox has a unique e-mail address [3, p. 130]. E-mail consists of two parts: a user ID, which is recorded before the sign "@" and a domain address of a machine, which is recorded after the sign "@" [9, p. 23].

One can identify some pedagogical conditions of e-mail in professional training [9, p. 23-24]: 1) at the very beginning of training it is necessary to break modern specialists in pairs, which include both students who have experience of using e-mail, and students who do not have this experience; 2) a teachers' training course should help students by giving them short recommendations on the use of e-mail; 3) a teacher must take into account different levels of training students and build the learning process in such a way that it should not be boring for those who makes progress and at the same time it should be encouraging for those who doesn't make progress. In short, an individual approach to learning becomes necessary; 4) a joint work should be organized during training, in which students themselves have to give some answers, using e-mail capabilities; 5) a joint discussion of problems should be organized when using e-mail.

It should be noted that the educational opportunities of e-mail are the most affordable of all Internet technologies and at the same time are the most underestimated ones. Special e-mail programs are based on these principles and, therefore, a serious training is not necessary for the use of e-mail. E-mail has very wide possibilities for improving the quality of the educational process. It is also a means of additional support for teaching and learning activities, giving excellent opportunities of modern specialists' communication with a teacher and with each other (namely, confidential communication), and a means of control of the progress of the educational process [6, p. 40].

Let's explain these opportunities. So, via e-mail a teacher can immediately distribute answers to questions that often arise not only to those who ask, but to all others. Then e-mail allows to remove barriers that prevent today's professionals to ask questions related to the problems that lie outside the subject under study. E-mail management can significantly change the educational process, making it possible to advance dissemination of results of certification, orders and other administrative information. With the help of e-mail students can explain their absence at classes, send messages about the disease, current reports in practice, which takes place in remote locations, etc. Such a use of e-mail provides students a sense of personal contact with both teachers and administration of a university. If possible, it is desirable to embed access to e-mail in the curriculum, so that modern specialists should have an opportunity if not to consult, but at least to put a question to a teacher in case of difficulties or to express their opinion about a program.

Use of e-mail can increase the effectiveness of teachers' work. In work with many modern specialists it may be reflected with a greater degree if a discussion of issues that are sent by e-mail will be organized in virtual seminars or in working groups specially organized for the purpose. It should be taken into account that not every student voluntarily joins this kind of educational work and therefore there is a need in a specific system of encouragement [6, p. 40].

E-mail can be a part of a University e-learning environment that allows to coordinate teachers' and students' work. Saving of an electronic copy of every sent and received mail and fixing the time and date of the document makes it possible to create students' electronic portfolios with done and saved tasks, and "database" that stores instructions, materials, schedules, etc. with access for a limited number of persons.

The use of e-mail, taking into account the above mentioned information, contributes to the organization of an independent work, allowing modern specialists to obtain information, an advice, to organize their own learning [1, p. 34-35].

Conclusions and prospects of further research. So, we come to the conclusion that in the list of all types of Internet technologies e-mail has become an indispensable tool of every teacher. At Universities it can be achieved without Internet access within the LAN. Its simplicity, compared with other technologies, the highest potential in both individualization of work with modern specialists and organizing their collective activities allow us to consider this technology to be a compulsory information education technology for a modern educational establishment. Identification and description of advantages and disadvantages of ICT use in education has perspective in terms of research of specific features of use of other Internet technologies, including blogs, podcasts, wikis, forums, chats, etc. during the formation of modern specialists' professional competence.

References

1. Raitskaya, L. K. (2011). *Didactic and psychological bases of the use of Web 2.0 technologies in higher professional education*. Moscow: Moscow State Open University. (in Russ.)
2. Nikolaeva, S. Yu. (2002). *Methods of teaching foreign languages at educational establishments*. Kyiv: Lenvit. (in Ukr.)
3. Moiseyeva, M. V. (2008). *Development of professional competence in the field of ICT. Basic Training Course*. Moscow: Publishing House "Obuchenie_Servis". (in Russ.)
4. Malovichko, Ye. A. (2011). Use of the Internet for the formation of future engineers' professional communicative competence at a technical higher educational establishment. *Scientific Papers of Donetsk National Technical University. Series: pedagogy, psychology and sociology. 9 (191), 119-124*. (in Ukr.)
5. Krasilnikova, V. A. (2003). *Information and communication technologies in education*. Orenburg: SEE OSU. (in Russ.)
6. Zakharova, I. G. (2003). *Information technologies in education*. Moscow: Publishing Center "Academy". (in Russ.)
7. Beauvois, M. H. (1997). Computer-mediated communication (CMC): technology for improving speaking and writing. *Technology-Enhanced Language Learning*. Lincolnwood, IL: National Textbook Company. 165-184. (in Engl.)

8. Panyukova, S. V. (2010). *The use of information and communication technologies in education*. Moscow: Publishing Center "Academy". (in Russ.)
9. Abaluyev, R. N. (2002). *Internet technologies in education*. Tambov: TSTU. Part 3. (in Russ.)
10. Kodzhaspirova, G. M. (2001). *Technical training facilities and methods of their use*. Moscow: Publishing Center "Academy". (in Russ.)

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Purpose of the paper is determined by the necessity to define the role of e-mail usage in the process of formation of modern specialists' professional competence.

Results. Most frequently e-mail is used by students to communicate in a foreign language during any project, i.e. thematically oriented communication with a certain group of students of other educational establishments. It can also be used: a) to conduct private correspondence ("alone"); b) send a copy of a letter to others ("one-to many"); c) to conduct networking discussions, teleconferences in a delayed mode; d) to send news by specialized groups of users; e) to work with remote information servers, asking them information which is interesting for a user; f) to send faxes and telexes.

Efficiency of use of the mentioned Internet technology is conditioned by the fact that, on the one hand, it increases motivation of a learner, making it possible to use English for real communication on a global scale that goes beyond the academic communication. On the other hand, e-mail allows to make productive collective thinking. This is evident especially when students interact to solve a problem together, using a foreign language as a means of communication. This feature is also very effective for language practice. When using e-mail as a means of communication, students can exchange messages and participate in discussions with their pals.

Some situations typical of teachers in the system of e-learning are distinguished: a) informing learners; b) communication with modern specialists, establishing feedback with the help of Internet technologies; c) writing credit works and receiving feedback.

E-mail as Internet technology is used for such purposes [10, p. 130]: 1) forwarding messages to the other user; 2) transmission of the same message to multiple users; 3) sending messages to several organizations according to a definite list; 4) sending a text file; 5) sending a binary file, which contains a computer program, graphics, a document worked with the help of a text editor, electronic table or even

audio- and video; 6) spreading of an "electronic magazine"; 7) transmitting "hot news" and ads via the Internet.

One can identify some pedagogical conditions of e-mail in professional training [9, p. 23-24]: 1) at the very beginning of training it is necessary to break modern specialists in pairs, which include both students who have experience of using e-mail, and students who do not have this experience; 2) a teachers' training course should help students by giving them short recommendations on the use of e-mail; 3) a teacher must take into account different levels of training students and build the learning process in such a way that it should not be boring for those who makes progress and at the same time it should be encouraging for those who doesn't make progress. In short, an individual approach to learning becomes necessary; 4) a joint work should be organized during training, in which students themselves have to give some answers, using e-mail capabilities; 5) a joint discussion of problems should be organized when using e-mail.

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

Conclusion. So, we come to the conclusion that in the list of all types of Internet technologies e-mail has become an indispensable tool of every teacher. At Universities it can be achieved without Internet access within the LAN. Its simplicity, compared with other technologies, the highest potential in both individualization of work with modern specialists and organizing their collective activities allow us to consider this technology to be a compulsory information education technology for a modern educational establishment. Identification and description of advantages and disadvantages of ICT use in education has perspective in terms of research of specific features of use of other Internet technologies, including blogs, podcasts, wikis, forums, chats, etc. during the formation of modern specialists' professional competence.

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