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Kramarenko T.V.,

*PhD in Pedagogics, Associate Professor Dnipro State University of Agriculture and Economics, kramarenkot@i.ua**Ukraine, Dnipro*

## MODERN INTERACTIVE, INFORMATION AND COMMUNICATION EDUCATIONAL TECHNOLOGIES AT HIGHER SCHOOL

*The article deals with modern information, communication and interactive educational technologies, the advantages of their use by teachers in practical classes at higher school. The basic signs of interactive technologies have been shown: the construction of training based on the student's interaction with the learning environment; the change in the interaction of the teacher and students: the activity of the teacher gives way to the activity of students, and the task of the teacher is to create conditions for their initiative; the role of a teacher as a consultant, organizer, source of information; the absence of the dominance of any participant in training over others. It has been considered that information and communication technologies in education through their potential contribute to the implementation of such didactic tasks as improving the quality of education on the basis of the interconnection of the general and didactic principles of autonomy, activity and systematic approach; the expansion of opportunities for continuing education based on the implementation of the principles of consistency, accessibility, etc.*

**Key words:** *interactive technologies, information and communication technologies, interaction, dialogue, optimization of educational process, culture of professional dialogue, system «student-teacher», «student-student».*

**Formulation of the problem.** Over the past two decades, there has been a shift from traditional technology of higher education to «information and communication technologies» – personal computers, computer databases, electronic information networks, etc. Thus, there is a shift to the developments aimed at creating a specific learning environment, or applying technology and communication in education. «Information and communication teaching technologies» in education is a complex of fundamentally new educational and methodological materials, technical, communication and instrumental means of processing, preservation, transmission, display of information in accordance with the laws of the educational process, which effectively influence the professional training of future specialist.

Means of ICT is a synthesis of modern achievements of pedagogical science and means of information and computer technology. They implement scientific approaches to the organization of the educational process in order to optimize it and increase its efficiency, as well as to intellectualize the material and technical base of educational institutions in a continuous way. In addition, the effectiveness of the learning process also depends on the introduction of a variety of interactive technologies that ensure the dialogue of the learning process, which is extremely important when learning a foreign language.

**Analysis of topical research.** The problem of the use of interactive, information and communication technologies was discussed by many scientists who evaluated them positively, considering them as a great practical benefit (N. Volkova, O. Kushchenko, M. Priyma, I. Rosina, V. Faturova, O. Khmel, S. Yashanov and others). Despite the achievements of scientists in solving the problem of using information and communication technologies in education, the study of the specifics of their use by teachers in higher educational institutions remains unresolved. Consequently, the relevance of this issue in the modern educational environment is evident, as today qualitative

teaching of disciplines cannot be carried out without the use of facilities provided by computer, interactive technologies and the Internet.

**The purpose of the article** is to analyze the existing interactive, information and communication educational technologies and to get acquainted with the advantages of their use by teachers in practical classes.

According to the goal, the following tasks were set: to reveal the concept of ICT and interactive technologies, to consider the ways of using these technologies by teachers in higher education.

**Presenting the main material.** The attention should be paid to revealing the essence of the concept of «interactive technologies». Interactive technologies are collaborative studying when both students and teachers are the subjects of the educational process. Interactivity in studying can be highlighted as the ability to interact, study in conversation, dialogue, action. So, in the narrow sense, interactive ones can be called technologies in which the learner is a participant. He does not act only as a listener, an observer, but takes an active part in what is happening, actually creating this phenomenon [4].

The main advantages of interactive technologies include:

- helping students learn how to express their own opinions; to analyze the information received; to use the knowledge and experience acquired earlier; to debate, to defend their own point of view; to be more confident and independent;

- facilitating the intensification and optimization of the educational process. The goal of interactive learning is to create comfortable conditions and a supportive atmosphere in which each student will feel successful in learning a foreign language and feel his or her intellectual ability.

The main features of interactive technologies are: – the development of training on the interaction of the student with the learning environment, which serves as a space for learning experiences; a change in the interaction of the teacher and students: the activity of the teacher gives way to

the activity of students, and the task of the teacher is to create conditions for their initiative; – role of the teacher as a consultant, organizer, source of information; – absence of the dominance of any participant in training over others [2].

Among the various interactive learning technologies that are used in educational practice, the following are distinguished: business games; role games; didactic games; case methods. These interactive technologies are aimed at boosting mental activity, developing creative abilities and forming a foreign dialogue culture among in commodity analysis and commercial activity specialists. In turn, ICTs are tools for creating, storing, transmitting, processing information and managing it. This widely used term includes all the technologies used to communicate and work with information. Appropriate use of ICT in the educational process is a prerequisite for improving the quality of educational services, expanding their capabilities, and creative implementation of personality in learning activities [1].

Information and communication technologies in education through their potential contribute to the implementation of such didactic tasks:

- improvement of the quality of education on the basis of the interconnection of the general and didactic principles of autonomy, activity and systematic character;
- expansion of opportunities for continuous education based on the implementation of the principles of consistency, continuity and accessibility;
- providing adequate level of training of teachers for work with information and communication technologies;
- improvement of the content of teaching, taking into account the interaction of general and didactic principles, covering the principle of scientific research, visibility, accessibility, communication theory with practice;
- continuous improvement of the didactic provision of the educational process [1, 3].

During our study, it was found that a large number of teachers need assistance in the implementation of interactive, information and communication technologies, their organizational and methodological support. Most of the teachers do not use these technologies and therefore need to be trained. Thus, educational and methodological seminars for university instructors were developed and implemented with the general theme «Modern Interactive, Information and Communication Technologies in education», the purpose of which was to prepare teachers to work with interactive, information and communication technologies in the learning process. Thus, a scientific and practical seminar «Pedagogical skills: professional professionalization and innovative approaches» was conducted, the task of which was to increase the teacher's teaching skills. The workshop included lectures (8 hours), practical classes (8 hours), training sessions (6 hours), master classes (4 hours). Various issues were discussed at the seminar, namely, modern teaching technologies, teaching methods for individual courses, training format as a method of activating at higher educational establishments. The workshop covered issues related to the methodology for conducting projects: information (aimed at collecting specialized information, familiarizing project participants with this information, analyzing it and summarizing facts intended for a wide audience); informational and communicative (found in the

harmonious combination of information seeking and communicative activities of students); brain storming, case method analysis, incident method, presentation, role plays, didactic games, etc. Particular attention was paid to the work of discussion groups, or the discussion list (List) for teachers of English as a foreign language, TESL-L (Teachers of English as a Second Language-List) [6]. Teachers from universities were introduced to the fact that the introduction of an electronic discussion letter is compared with giving access to the experience of specialists, materials and resources. In addition, teachers were invited to take part in the practical organization of professional dialogue with students, enabling them to identify themselves in various situations requiring professional dialogue. During the work the following issues were considered: – professional dialogue of teachers who carry out the training process for future merchants; – formation of a professional dialogue culture of future specialists by means of information and communication technologies; – the theoretical basis of interactive technologies; – a methodology for organizing student work on the basis of interactive technologies, taking into account information and communication technologies. Teachers were interested in combined classes with the use of situational tasks, in which they demonstrated their pedagogical skills. Teachers shared impressions and ideas, held a dialogue on professional topics.

During the seminar, the attention of teachers was emphasized on the importance of establishing subject and subject relations in the systems «student – student», «student – teacher» and ensuring their pedagogical interaction. The teachers' focus was on developing professional relationships with students based on a polite attitude towards each other, manifestation of moral and social responsibility, ethical conduct, and B. Franklin's rule of «honesty – the best policy» in conducting direct and indirect professional dialogue. During the academic year, the teachers became participants in scientific and methodological seminars «Communicative Processes in Education», «Interactive Technologies for Professional Communication Training». Attention of teachers was focused on such issues as professional dialogue: the essence, functions, types; professional language and speech; non-verbal aspects of intercultural dialogue and their role in regulating relationships, establishing contacts with specialists who are representatives of other cultures; characterization of non-verbal channels of intercultural communication (facial expression, touch, gesture, interpersonal communicative space, visual interaction, intonation); the role of multi- and hypermedia technologies, information retrieval systems in preparing future professionals for a professional dialogue; computer communications in off-line and on-line communication modes; personally oriented technologies of teaching students and their role in communicative training of future specialists, etc. Teachers were introduced to the advantages of the following Internet sites: <http://www.technology.com> – lesson planning; <http://www.eslcafe.com> – an interactive communication club; <http://www.rong-chang.com> – English language training; Global virtual classroom <http://www.virtual-classroom.org> – free online educational program; <http://teenadviceonline.org> – Educational site for teachers. Teachers focused their attention on the peculiarities

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of establishing partnerships with students based on cooperation, openness, trust, personal involvement, support; organization of constant counseling; taking into account the initial knowledge of students in order to model the individual approach to pedagogical interaction; the creation of successful learning situations (the selection of dual tasks, the promotion of intermediate actions, differentiated help), the effect of novelty, the effect of imagination, the effect of change, the effect of the game. Attention of teachers was paid, first of all, to increasing the motivation of students' training, which is the driving force in realizing the needs of the individual in the active interaction.

Teachers realized that positive learning motivation should ensure not only the content of learning, but also properly organized communicative activities of students through interactive, information and communication technologies. Thus, the teachers tried to actualize the needs of students in the implementation of active professional dialogue, interaction; to form the motives of communication in a professionally directed electronic environment, to realize the possibilities of this environment for the exchange of professionally directed information among specialist; to form the student's desire to deepen their knowledge and skills regarding the mastery of professional dialogue, information and communication tools, improvement of skills of work with information and communicative technologies, development of a critical attitude to the results of their activities, etc.

**Conclusions and perspectives of further scientific research.** Summarizing the foregoing, it should be noted that modern information technologies and innovative teaching methods give university instructors tremendous opportunities for education, professional growth, they provide access to unlimited information, and give the chance to conduct dialogue with the whole world. Taking part in scientific and methodological seminars, teachers have the opportunity to improve their abilities and pedagogical skills with the help of modern information and communication technologies, to find an individual style of work with students.

**Крамаренко Т.В.,**

*к.пед.н., доцент, Дніпровський державний аграрно-економічний університет, kramarenkot@i.ua*

*Україна, м. Дніпро*

### **СУЧАСНІ ІНТЕРАКТИВНІ ТА ІНФОРМАЦІЙНО-КОМУНІКАЦІЙНІ ТЕХНОЛОГІЇ НАВЧАННЯ У ВИЩІЙ ШКОЛІ**

*У статті розглядаються сучасні інформаційно-комунікаційні та інтерактивні технології навчання, переваги їх застосування викладачами на практичних заняттях у вищій школі. Показано основні ознаки інтерактивних технологій: побудова навчання на взаємодії студента з навчальним середовищем; зміна взаємодії викладача і студентів: активність педагога поступає місцем активності студентів, а завдання викладача полягає у створенні умов для їх ініціативи; роль викладача як консультанта, організатора, джерело інформації; відсутність домінування будь-якого учасника навчання над іншими. Розглянуто, що інформаційно-комунікаційні технології в освіті через їх потенціал сприяють реалізації таких дидактичних завдань, як підвищення якості освіти на основі взаємозв'язку загальнодидактичних принципів самостійності, активності й систематичності; розширення можливостей для безперервної освіти на основі реалізації принципів послідовності, доступності тощо.*

**Ключові слова:** *інтерактивні технології, інформаційно-комунікаційні технології, взаємодія, діалог, оптимізація навчального процесу, культура професійного діалогу, системи «студент-викладач», «студент-студент».*

#### **Literature**

1. Волкова Н.П. Теоретичні та методичні засади підготовки майбутніх учителів до професійно-педагогічної комунікації : дис... д-ра пед. наук. : 13.00.04 / Н.П. Волкова / Луганський нац. пед. ун-т. – Луганськ, 2006. – 432 с.

2. Коваленко О. Концептуальні зміни у викладанні іноземних мов у контексті трансформації іншомовної освіти / О. Коваленко // Іноземні мови в навчальних закладах. – Педагогічна преса, 2003.

3. Куценко О.С. Формування культури Інтернет-комунікації майбутніх учителів засобами інформаційно-комунікаційних технологій : дис... канд. пед. наук. / О.С. Куценко. – Дніпропетровськ, 2008. – 256 с.

4. Пометун О. Сучасний урок: Інтерактивні технології навчання / О. Пометун, Л. Пироженко. – К., 2003.

5. Прийма М.С. Формування технологічної культури майбутніх учителів інформатики у процесі професійно-педагогічної підготовки : монографія / М.С. Прийма. – Мелітополь, 2005. – 16 с.

6. Schmitz H.-G. Brainstorming – Made by us / H.-G. Schmitz // Sprachnachrichten. – 2005. – № 1. – S. 11–12.

#### **References**

1. Volkova N.P. Teoretychni ta metodychni zasady pidhotovky maibutnikh uchyteliv do profesiino-pedahohichnoi komunikatsii : dys. ... d-ra ped. nauk. : 13.00.04 / N.P. Volkova / Luhanskyi nats. ped. un-t. – Luhansk, 2006. – 432 s.

2. Kovalenko O. Kontseptualni zminy u vykladanni inozemnykh mov u konteksti transformatsii inshomovnoi osvity / O. Kovalenko // Inozemni movy v navchalnykh zakladakh. – Pedahohichna presa, 2003.

3. Kuschchenko O.S. Formuvannia kultury Internet-komunikatsii maibutnikh uchyteliv zasobamy informatsiino-komunikatsiynykh tekhnolohii : dys. ... kand. ped. nauk. / O.S. Kuschchenko. – Dnipropetrovsk, 2008. – 256 s.

4. Pometun O. Suchasnyi urok: Interaktyvni tekhnolohii navchannia / O. Pometun, L. Pyrozhenko. – K., 2003.

5. Pryima M.S. Formuvannia tekhnolohichnoi kultury maibutnikh uchyteliv informatyky u protsesi profesiino-pedahohichnoi pidhotovky : monohrafiia / M.S. Pryima. – Melitopol, 2005. – 16 s.

6. Schmitz H.-G. Brainstorming – Made by us / H.-G. Schmitz // Sprachnachrichten. – 2005. – № 1. – S. 11–12.