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## PROFESSIONAL TRAINING OF FUTURE SPECIALISTS WITH THE USE OF INFORMATION TECHNOLOGIES

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This paper deals with implementation of information technologies within different levels of professional training of the future specialists at A. Yassawi International Kazakh-Turkish University. Information technologies enable the future specialists to engage in online exchanges and it gives great good opportunity in learning the subject efficiently; thereby expanding their study and learning community during the classroom activity.

The results obtained by the use of the information technologies show improvements in professional training of the future specialists in teaching foreign language. The use of information technology in teaching is increasing, which should lead to a significant improvement of the training quality of future specialists. Improvements also are observed in the experimental groups of higher levels, which indicates the efficiency of the use of information technologies in the professional training of future specialists.

**Key words:** information technology, professional training, future specialists.

The educational system of Kazakhstan is focused on occurrence in world educational space, therefore quality of education is considered in a context of conformity of level of received educational services by the world standard and norms. Today achievement of such quality of preparation of specialists which will give them the chance to compete on the international labour market is priority. In the conditions of market relations and all becoming complicated requirements to the educational maintenance, ways of the organization of educational process are necessary searches of new reserves of improvement of quality and efficiency of professional training of the future experts [1]. Kazakhstan clearly defined the benchmark for entry into the world educational space and carries out modernization of the educational system in the context of international requirements. Driving forces of innovation processes taking place in the higher school of Kazakhstan, are adapting to the internal employment market and the desire to enter into the world educational system as a full member. We need constant adaptation of educational programmes to the demand of the employment market. The quality criteria laid readiness for practical activity and the real competitiveness of the graduates.

Informatization of the system of education is considered as a strategically important direction of the State program of development of education of the Republic of Kazakh-

stan for the period 2011—2020 years, approved by the decree of the President while transition to primary task of English learning is to support the system of education of highly qualified person. In this case the important role plays professional training and improvement of qualification of specialists, the formation of a high level of their information competence. An important factor in the development of higher education is the informatization of the realization of a complex of measures aimed at ensuring full and timely use of reliable knowledge in all socially significant types of human activity. The process of informatization, having arisen simultaneously with the proliferation of electronics, computers, communication, intensively develops and changes the nature of work and the place of man in the educational space.

The use of information technology occupies a large place in the teaching of not only mathematical, natural-scientific, but also social and environmental disciplines. However, as noted by the modern researchers in the field of distant and mixed-learning their use, as a rule, takes place without the support of a didactic concept, it is often fragmented and inconsistent, often confined only to the transfer of educational information. It should be noted that the understanding of the student of the universal ways of solving the problems, development of skills to apply the knowledge in a new situation depends, to a greater extent on the nature of the mental activity, the effectiveness of feedback, professional orientation of the training process, and less of that, in any material carrier of information is student's work. The idea of professional training of the future specialists with the use of information technologies may be rejected by the teacher and not accepted by the future specialists because of the incomplete accounting of pedagogical patterns, lying in the basis of the learning process at any of its organization [2].

Students of A. Yassawi International Kazakh-Turkish University participated in the research work. The data were collected using questionnaires and followed by focused group discussions. Besides that, observations were also conducted in order to see the efficiency of using information technology in learning process. The whole data were then analyzed based on a descriptive qualitative method. Research methods: general scientific: analytical (the analysis of the scientific literature on psychology, pedagogic, ecology on an investigated theme; the analysis of manuals on ecology training); social-pedagogical: observation and material generalization on professional training of the future ecologists; questioning and testing; skilled-experimental methods: carrying out of skilled training, pedagogical experiment, processing of the statistical data.

Professional training of the future specialists together with the classroom is one of the forms of the educational process and is an essential part of it. For its successful implementation the planning and control on the part of teachers are required, as well as the planning of the volume of individual work in the curriculum of the specialties of the profile departments, methodological services of educational institutions are required. Because of the availability of options to define the individual work in the pedagogical literature, we shall adhere to the following formulation: individual work — is a planned students' work performed on the instructions and under the guidance of a teacher, but without his direct participation. For the effective implementation of work it is necessary to know the educational strategies — stable complex of actions, purposefully organized by subject for the solution of various types of educational tasks.

Training strategies determine the content and the technology of professional training. Putting the person in front of a choice of the concrete actions from majority, they characterize the indicative and performing activity of students and consist of the usual skills, which include the existing methods of processing information, assessment, control, and regulation of its own activities [3]. One of the conditions to the effectiveness of professional training of the future specialists is the development of the rational organization of activity of students. It is important gradually change the relationship between the student and the teacher. In the process of promotion to the senior courses the active creative position belongs to the students. Organization of the future specialists activity should be deformed in the direction of the motives of student work independently, actively strive for self-education. The performance of tasks for individual work should be taught to think, analyze, take account of the conditions, set tasks, solve problems, i.e. the process of individual work should gradually turn into a creative one. New information technologies can help with this.

The participation of partner significantly rebuilds psychology of the student. In the case of individual training the student subjectively evaluate his activities as a full and complete, but such an assessment could be wrong. This is the second link of independent educational activity which ensures the effectiveness of the work. That is why it becomes the major reserve of increase of efficiency of specialists training [4]. Now we are going to consider the leading pedagogical aspects and main directions of the organization of professional training of the future specialists. The existing educational forms of educational activity of the future specialists at the University — lectures, practical and laboratory classes, seminars we determine the forms of individual work and the types of homework. Control system is also lays the foundations for its orientation.

Seminars and project tasks should be designed to improve the skills of the search of optimal variants of answers, calculations and decisions. Individual work is performed with the use of reference of didactic materials, to correct the work of students and improve its quality. The members of departments develop the system of tasks for individual work; themes of the essays and reports; instructions and methodical instructions for laboratory works, training exercises, homework assignments, etc.; theme of course works, course and degree projects; lists of main and additional literature [5].

Professional training of the future specialists is the activity nature and therefore in its structure can be identified components, typical for the activities as such: motivational links, setting specific objectives, the choice of how to run, performing link control. In this connection it is possible to allocate the conditions that ensure the successful implementation of individual work: motivation of educational activity; a clear statement of cognitive tasks; algorithm, method of work, the future specialists knowledge of the ways of its implementation; a clear definition of a teacher of reporting forms, volume of work, terms of its presentation; determination of the kinds of assistance (consultations — setting, theme, problem); criteria for assessment, reporting, etc.; types and forms of control (workshop, control works, tests, seminar, etc.).

The future specialists' activity can develop in two directions: firstly, to achieve the level at which a person performs one or another work consciously, and is able to prove why he took one or the other decision. The second type of individual work is the unconscious reflex, which became a tradition. In such a case the person will not be able to consciously evaluate the work of his own; therefore this activity does not lead to creativity,

which, in turn, will become an obstacle to succeed in self-employment. A special place in the formation of professional orientation due to the implementation of the future specialists professional training takes a practical method. A practical method includes: the creation of pedagogical, psychological characteristics of children, preparation the lesson plans and educational work, formation of the system of extracurricular work and the creation of examples and sample lessons learned through monitoring and observation of the teaching and educational work of students in the period of practical training. When using a practical method the level of students' knowledge is taken into account, because a practical method for the most part aimed at the practical application of theoretical knowledge. Naturally, the professional orientation of the students, who have shown skill in using a practical method, is very high.

In the modern period, when fundamental changes are occurring in the educational system, professionalism and information principle is one of the new, but at the same time, the urgent requirements. Of course, there are many types of informatization of the education system. Moreover, in recent times, the issue of informatization is considered in close connection with the computerization of the educational system. The value of the professional information principle in the present moment has reached the highest level, because informatization of education has become imperative requirement of modern reality, and the continuous use and application of professional information has become an important aspect of the practical activities. Thus, tasks for individual work represent a summary of the professional information, where are those or other parties provide professional information principle by means of the analysis of the effectiveness of the information. The main function of the information is the ability to effectively transfer the experience of the company in the new conditions and on the basis of the formation of new ideas and achieve new professional heights [6].

Informatization of education can help to solve a number of the following didactic tasks: the study of the phenomena and processes in micro — and macrocosm, within the complex of technical and biological systems on the basis of use of the means of computer graphics and computer simulation; to present in an easy-to study the time-scale of various physical, chemical, biological and social processes actually taking place with very large or very low speed. The knowledge of learners can be obtained in a declarative way, i.e. oriented to a consistent presentation of the portions of the educational information and control of its learning (electronic textbooks, test and monitoring programs, guides and training database, educational videos), or procedural, i.e., under construction on the basis of models of studied objects, processes and phenomena (simulation models, object-oriented environment and developed on the basis of their laboratory courses, simulators, gaming programs).

When developing the skills of informatization in teacher education the purpose of each of the individual work should be understandable, should have a detailed definition of its scope and content in accordance with the educational purpose of an object should create conditions for students to carry out this work. Tasks for students' professional training should be established so that students do not use some ready examples, and to use the obtained knowledge, skills and abilities, but at the same time and sought to obtain new knowledge and skills. In students' professional training it is necessary to conduct systematic, planned, with the creation of the corresponding graphs, under constant su-

pervision, and evaluation should have a special influence on the overall assessment of the future specialists' knowledge and be objective, deep, specific and complete.

Monitoring of individual work will allow in the shortest possible time to correct the mistakes, made during the learning process, improve the quality of education, to develop a personality of a student and a teacher. Combined with self-control, it will give an additional stimulus to the development of the personality and creativity, so it should first of all be important for the student. In addition to the control and effective monitoring of the results of the future specialists' professional training, it is necessary to place of use of information and test technologies, colloquiums, seminars and other forms of control [7].

Among the advantages of using these systems it is advisable to allocate the following: firstly, the above mentioned educational complexes are designed and created as a holistic system of pedagogical program means integrated with the purpose of collecting organizations storage, processing, transmission and presentation of the educational information to the users; secondly, all the elements of the educational complexes of interrelated and have a single information base and hardware-software environment; thirdly, initially in the design of the didactic complexes provide for the possibility of their use both in local and distributed computer networks of the University, and so under the remote form of training. Independence and autonomy in pedagogy presented to us as the qualities of the person, related to the manifestation of initiative, ability to model, design and organize their own, without assistance.

Proceeding from the proposed definition, the proposed type of security is a technological system, consisting of two independent and at the same time, interrelated and mutually complementary components — information and computer. The first main providing the content of specialist training should be viewed in the context of the objectives of full and adequate provision of students and teachers of educational and other kind of information that would contribute to the achievement of the didactic purposes that is to achieve a guaranteed pedagogical result.

As a second component that provides the procedural side of the student, should be considered computer software, which is implemented on the basis of the application in the process of professional preparation of modern information technologies in education. It is the totality of modern computer technology which means telecommunication, the software tools that provide an interactive program-methodical maintenance of modern training technologies (computers of all classes, display, printer, memory, device of input of speech in the computer, keyboard, data bases, knowledge bases, multimedia systems, videotext, modem, computer networks, electronic mail, electronic conferences, information search systems, expert training system, the output devices of graphic information, hypertext systems, voice e-mail, electronic Bulletin Board, software, means of navigation in the Internet, automated libraries, software educational purpose, editorial-publishing systems, CD-ROM, systems of recognition of the text, software complexes (programming languages, translators), speech synthesizers on the text, data transfer facilities).

Analysis of the published works and the specific practices of education in modern higher school suggest that researchers reveal the essence of the individual work through the details of any ways to guide its implementation, or forms of the organization of training sessions. Because of this individual work of one of the authors is defined as a teach-

ing method; the other is how to receive the teachings; the third is a form of organization of educational activity.

Available in the Engineering-pedagogical faculty of A. Yassawi Kazakh-Turkish International University there are computers (5 comp classes), multimedia, (3 m/projector and screens, 5 inter boards) allow you to conduct training with the optimal load of students on 1 computer. Internet implies out of class individual work on the implementation of specially trained tasks with wide use of pre-marked potential of the Internet. The available information allows you to develop professional training of the future specialists with the use of informational technologies and the basics of work on a computer on the initial stage of training, and then become savvy users of the application programs, to acquire professional skills. The majority of the future specialists found that using information technology is positive and useful.

Professional training of the future specialists in this case is built in such a way that enables the trainee to perform educational objectives in any convenient place with the Internet access point. Out of class version of the integration of Internet-technologies allows to implement a number of tasks: to consider individual features of the of the future specialists, giving them greater freedom in time and information space for action; minimize the technical complexity of the tasks set by taking into account the level of computer knowledge and skills of work in Internet; optimally integrate the forms of the usage of Internet-technologies of training with the main aspects of the educational process in teaching English language with minimal costs.

There are two main groups of independent activity carried out in the Internet network in the study, which represents the planned and controlled educational process, requiring a teacher of special knowledge, abilities and skills of work with computer and the Internet, as well as knowledge of methods for the use and integration of Internet technologies in the learning process: individual work with electronic resources, which includes specially organized search, analysis and transformation of information, as well as a specially organized participation in web-projects; the Internet-communication, to which belongs a specially organized communication through e-mail and forum.

In the conclusion it would be desirable to note that, the analysis of the theory and practice of professional training of the future specialists to professional work leads to understanding of a special urgency and the importance of the problem of formation of professional competence of the future specialists with the use of informational technologies. The developed theoretical positions and results of the research work allow to note the following conclusions: the theoretical analysis has allowed to open theoretical both practical essence and the maintenance of the process of formation of the professional competence of the future specialists, the conducted scientific research has shown high efficiency of introduction of the elective course on a basis of competent approach with application of information- technologies in formation of the professional competence of the future specialists.

The use of the technique developed by us has allowed generating the professional competence necessary for the future specialists that results of the spent experiment have proved. In our research tendencies and conditions are revealed, tasks that testify to research objective achievement are decided. Our scientific research brings certain contribution to a solution of a problem of formation of the professional competence of the future specialists with the use of informational technologies.

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## ПРОФЕССИОНАЛЬНАЯ ПОДГОТОВКА БУДУЩИХ СПЕЦИАЛИСТОВ С ИСПОЛЬЗОВАНИЕМ ИНФОРМАЦИОННЫХ ТЕХНОЛОГИЙ

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Рассматривается применение информационных технологий в профессиональной подготовке различных уровней будущих специалистов в Международном казахско-турецком университете им. А. Ясави. Информационные технологии позволяют будущим специалистам участвовать в онлайн-обменах, что дает хорошую возможность более качественно изучать предмет, расширяя их возможности в совместном участии в учебной и познавательной деятельности во время аудиторных занятий.

Результаты, полученные с применением информационных технологий, указывают на улучшение качества профессиональной подготовки будущих специалистов при обучении их иностранным языкам. Использование информационных технологий в преподавании все больше возрастает, что должно привести к значительному улучшению качества подготовки будущих специалистов. Улучшения также наблюдаются и в экспериментальных группах более высоких уровней, что указывает на эффективность использования информационных технологий в профессиональной подготовке будущих специалистов.

**Ключевые слова:** информационные технологии, профессиональная подготовка будущих специалистов.