SECTION 21. Pedagogy. Psychology. Innovations in the field of education.

Saltanat Tynybekovna Nyshanova
Candidate of Pedagogical Science,
Associated professor
K.A.Yassawi Kazakh-Turkish International
University, Kazakhstan
saltanur@mail.ru

Madina Murzakhanovna Akeshova
Senior teacher, Master of English Philology
K.A.Yassawi Kazakh-Turkish International
University, Kazakhstan
madina_shakh@mail.ru

EFFECTIVE WAYS OF USING INFORMATION TECHNOLOGIES TO FORM COMMUNICATIVE COMPETENCE OF FUTURE SPESIALISTS IN TEACHING ENGLISH

Abstract: *The entry of the Republic Kazakhstan into world education space demanded cardinal reforms in higher education system. Thus, the search of ways of transition to a new education paradigm is carried out in higher education system i.e. achievement of essentially new purposes of higher education which lies in achievement of new level of scholarship of certain personality and society. The updated system creation and professional education improving is required in training qualified specialists that meet the requirements of development of up-to-date information-oriented society.*

The purpose of higher education in Republic Kazakhstan is to train specialists possessing professional, communicative and foreign language competence, creative potential and critical style of thinking. Thereby, there is a need of transformation of educational environment of higher school into integrated creatively developing educational space promoting the formation of communicative competence as a factor of successful self-realization in professional activity.

The results obtained by the use of the information technologies show improvements in formation of the communicative competence of the future specialists in teaching foreign language. The use of information technologies in teaching system shows an increase, which points to a significant improvement and higher achievement by the students. The improvement is also represented in higher average grades of the experimental group and it shows the effectiveness of the use of information technologies in formation of the communicative competence of the future specialists in teaching foreign language.

Key words: *communicative competence, modern information technologies, teaching English.*
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INTRODUCTION

The President of the Republic of Kazakhstan Nursultan Nazarbayev in his annual message addressing the nation made a special emphasis that in modernization of education system it is important to introduce modern techniques and technologies and expand availability of education to youth in training process [1].

One of strategically important purposes in process of development of our country is a human development where a key indicator is educational level. The improvement of education system plays an important role in achievement of this purpose. One of the tasks set for education system, is formulated in the following way: "Professional and technical education has to be based on professional standards and is rigidly interconnected with the needs of economy" [2].

Successful modernization of education leads to development of human capital and economic growth. Therefore, education is recognized as one of the most important priorities of long-term Strategy "Kazakhstan – 2050". The questions of education system development play an important place and in the Strategic plan of development of the country till 2020. One of the priority directions of development of education system in the Republic of Kazakhstan is informatization of education of all levels and introduction of new training technologies.

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The analysis of current condition of preparation of specialists is provided in the State education development program in the Republic Kazakhstan for 2011 - 2020. It is noted that in contents of educational programs there are no requirements to assessment of basic and professional competences and theoretical preparation is dominant. The contents of this kind does not meet the requirements of employers expressing changes in the market of work, requirements of learners, seeking to receive the demanded skills supported with broad base of knowledge and abilities. It is specified that in educational institutions there are no steady links with customers and clients of educational services. There is a closed style of conduct of education institutions and enterprises. The system is focused not on the needs of labor-market and employers but on the current possibilities of teachers and training and recourse bases. As a result of it, preparation of cadres is carried out in a separation from real inquiries of production not taking into account mastering of formation of professional competence [3].

At A.Yassawi Kazakh-Turkish International University (Republic of Kazakhstan) preparation of specialists on the international level is also based on processes of modernization and informatization of education, on development of new pedagogical statuses of formation of future specialist as professional and creative personality, possessing high professional competence.

The analysis carried out by us on questions of a condition of training of professional specialists in formation of communicative competence of future ecologists, revealed the insufficient level of professional preparation allowing future specialists to be competitive on the international level. The necessity of a new approach is arisen to development of scientific bases of preparation of professional specialists in ecology and technique of teaching foreign languages in higher education institutions, in compliance with increasing requirements of development of information society.

Thus, the relevance of research is defined by requirements of development of the pedagogical theory and practice in the conditions of updating of system of higher education and is caused by the need of permission of the following contradictions: objective needs of society for specialists with high level of communicative competence; between objectively caused need of scientific comprehension of formation of communicative competence of future specialists when using informational technologies and an insufficient theoretical readiness of this question; between need in formation of communicative competence of future specialists on the basis of using informational technologies and insufficient development of methodical provision of this process in higher education institution.

The specified contradictions defined a research problem which consists in justification of theoretical bases and practical ways of formation of communicative competence of future specialists on the basis of information technologies in process of teaching English.

The research urgency is defined by the social order of a society on professionally competent person of the future specialist (in our research ecologist); necessity of creation of complete system of professional training of the future specialist; requirement of system of formation of the communicative competence of the future specialist, perfection of knowledge of a foreign language and working out of the maintenance, forms, methods and tutorials with application of information technologies.

Research objective is to provide process of formation of the communicative competence and improvement of quality of professional training of the future specialists on the basis of theoretical and practical working out and experimental research of foreign language teaching of the future ecologists with means of information technologies.

THE PURPOSE OF THE RESEARCH

The purpose of research is theoretical justification, practical development and experimental check of formation of communicative competence of future ecologists on the basis of usage of information technologies in teaching the English in process of professional preparation. The object of research is educational process of training of future ecologists in higher education institutions. The subject of research is the process of formation of communicative competence of future ecologists in process of teaching the English language on the basis of usage of information technologies.

METHODS OF THE RESEARCH

The main concept of our research: scientific bases of training of future ecologists should correspond to current requirements of development of information society, professional education and their productivity depends on the content of teaching and educational process of higher education institution.

The methodological and theoretical basis of research are: theory of professional education; theory of complete pedagogical process; theory of informatization of education; theory of foreign-language education; computer lingvodidactics; theoretical approaches to definition of the concept "competence", "communicative competence"; theoretical bases of use of telecommunication technologies in professional training of future ecologists.

The research sources: the works of philosophers, teachers and psychologists on

communicative competences; standard documents regulating professional training of future ecologists in higher education institutions: state obligatory standards of education, standard, working educational plans and programs; pedagogical experiment and author's scientific and curriculum and instructional kits which have been let out on the basis of own scientific and pedagogical experience of work, studying of world practice of professional education during the period of scientific study course of a doctoral candidate in Turkey and Russia, and a doctoral candidate's work experience as a teacher of higher education institution.

The research methods - the main methods of scientific research on formation of communicative competence on the basis of application of telecommunication technologies in teaching foreign language were supervision, theoretical analysis and synthesis, comparison and generalization, modeling, studying of experience of application of telecommunication technologies in teaching process.

In scientific work for the solution of the tasks and verification of initial assumptions the following methods of research were used: general-logical methods and ways (analysis of philosophical, methodical, psychological, pedagogical, standard and other literature on problems of application of telecommunication technologies in education, synthesis, abstraction, generalization, analogy, a structurally functional method and probabilistical and statistic methods); methods of theoretical knowledge (axiomatics, formalization, deduction, ascension from abstract to concrete); methods of empirical research: (supervision, interviewing, questioning, bibliographic method; experiment in natural conditions, comparison, description, monitoring, measurement); system approach at carrying out of historic and pedagogic and logical analysis, generalization and analysis of pedagogical experience; modeling of pedagogical processes; pedagogical design used for development of standard and programmatically-technological provision.

The theoretical and practical importance: the complex of the organizational-pedagogical, psychological-pedagogical, didactic-methodical conditions promoting efficiency of formation of the communicative competence and improvement of quality of professional training of the future ecologists in the process of teaching a foreign language by means of information technologies is revealed and proved. The system of exercises and the tasks, intended for the organization of a practical training on ecology in English and ingredients of formation of the communicative competence of the future ecologists in the process of teaching a foreign language of the future ecologists is developed by means of information technologies.

RESEARCH PROBLEM

The conducted analysis of research work has shown efficiency and necessity of the use of information technologies for formation of the communicative competence of the future ecologists in the process of foreign language teaching, for the decision of educational problems, formation of the professional specialist with the critical and creative thinking, capable effectively to act in changing conditions of professional work.

Nowadays one of the actual problems of training of highly skilled specialists on the international level and increase the efficiency of educational process at credit-modular teaching system at A.Yasawi International Kazak - Turkish University is information of education and use of information-communicational technologies in professional activity of the future specialists on the basis of competence approach.

Information of educational system is considered as strategically important paradigm of the Governmental program of educational development of the Republic of Kazakhstan for 2011-2020, confirmed by the President of Kazakhstan, at transition to electronic training the prime problem-maintenance of an education system by highly-skilled personnel (Governmental Program, www.edu.gov.kz).

According to a new Kazakhstan educational paradigm education should be directed on interests of personal development adequate to modern tendencies of social development, and to solve following problems:

• to harmonize relations of the person with the nature through development of a modern scientific picture of the world;

• to stimulate intellectual development and thinking enrichment through development of modern methods of scientific knowledge;

• recognizing that the person lives in a society, to achieve its successful socialization through immersing cultural existence, including technogenic and computerized, environment;

• considering that the modern person lives in conditions of the sated and active information environment, to teach the person to live in its stream, to create preconditions and conditions for continuous self-education;

• in view of integration tendencies of development of a science and techniques, requirement for new level of scientific literacy to create conditions for acquisition of the wide base formation allowing quickly enough to be switched to adjacent areas of professional activity.

One of the basic advantages of the competence approach is that learner is perceived not as passive object of educational influence, but as the active subject getting formation. The teacher does not impose to students' personal understanding of a material, and stimulates their independent activity on

mastering. Characteristic for new model of training, cooperation lies on the basis of educational activity [4].

The traditional educational paradigm basically leads to formation dependent learner as the teacher according to the program gives out the planned material focused on the average learner. Learners are not informed on main objectives and have no control over educational process and access to all material that is taught, guided only by instructions of the teacher and the textbook maintenance, studies in the set rate. It is obvious that educational process cannot generate the specialist with creative skills, professional and critical thinking which will be claimed in a modern society [5].

The educational environment simulated by means of information-communication technologies, allows changing of the situation. The teacher puts the purposes, forms the informational environment creating conditions for individual work. Presence of means for realization of the purposes and problems of educational process, knowledge of ways of the organization of teaching system and control devices are making components of the computer informational educational environment, which forms independent learner [6].

Educational system of the Republic of Kazakhstan is focused on occurrence in world educational space, therefore the quality of education is considered in the context of conformity of level of received educational services by the world standard and norms. Nowadays the priority is achievement of such quality of training of specialists which gives them the chance to compete on the international laboratory. In the conditions of market relations and complicated requirements to the education, ways of the organization of educational process searches of new reserves of improvement of quality and efficiency of preparation of the future specialists are necessary. Changes in social sphere of a society, information of social processes made a paradigm of formation which was replaced on competence the approach in formation [7].

One of actual problems in system of the Kazakhstan educational process in the course of professional training of the future specialists is formation of communicative competence. The suggested system of teaching helps to recognize ecology as an interdisciplinary science which is a necessary prerequisite for observing problem from the different angles, and it also allows students to apply knowledge of ecology in everyday life [8].

The organization of educational process with application of informational technology of training, an optimum combination of information technologies and traditional approaches demands the decision of some psychology-pedagogical, methodical and other problems and carrying out of corresponding researches. Having analyzed the literature on research subjects, we have allocated following actual directions of using information technologies in educational process:

- working out of a technique of use of information-communication technologies in teaching system to various disciplines;
- creation of corresponding methodical maintenance;
- an estimation of efficiency of application of informational technology of teaching,
- creation of the unique complex scientifically-methodical approach to a solution of a problem of the usage of information-communication technologies in educational process,
- preparation of the pedagogical staff, capable to carry out training in new conditions and to solve the above-stated problems and tasks [9].

The urgency of a considered problem is defined, first, by the usage of information technologies assumes presence at the modern, highly skilled expert of new knowledge, abilities, creative style of thinking which will provide necessary social adaptation to changes and guarantee its competitiveness on a labor market; secondly, necessity of perfection of the organization of professional activity of the future specialists in the conditions of information; thirdly, objective requirement of a modern society for preparation of the specialists, capable to be integrated into world information field; fourthly, tendencies of a national educational policy [10].

RESULT AND DISCUSSION

In order to calculate the effectiveness of information technologies use to form communicative competence of future specialists in the process of teaching English, the results of students who were taken part in experimental group and results of students, taken part in control group were compared and analized.

For the proof of degree of formation of the communicative competence of the future ecologists in the process of foreign language with the use of information technologies it is necessary to show that experimental and control samples have significant distinctions on the chosen indicator – to ability independently to analyze the task, to correlate it with professional work practice. For processing of results of experiment Student's t-criterion was used to establish similarities and distinctions of two empirical distributions.

The mathematical package «STATISTICA» was used. By means of Descriptive statistics mode Basics Statistics/Tables of this software were the hypothesis about conformity of samples to normal distribution which was checked up.

On these values for each group the mean score and a standard deviation (table 1) have been calculated.

Table 1

MEANS ON EACH GROUP OF THE AVERAGE GRADE AND THE STANDARD DEVIATION.

Numerical characteristics	1st sample (Control group)	2nd sample (Experimental group)
N (Quantity of students)	42	44
M (Average grade)	3,14	3,8
σ (A standard deviation)	0,61	0,32

For the given quantity are trained $\delta f = 44+42 = 83$. The received empirical value of t-criterion equal $t = 3,376$ exceeds critical for $\rho = 0,01$ ($t = 2,639$), but it appears less critical for $\rho = 0,001$ ($t = 3,416$), hence, it is possible to draw a conclusion on statistically significant distinction of average arithmetic values in two samples and about advantages of the second (experimental) methodical system of teaching .

The total test spent with students of control and experimental group, is aimed on revealing of efficiency of formation of the communicative competence of the future ecologists in the process of teaching foreign language with the use of information technologies. The concept of factor **К** relative total mastering of knowledge by students of one group is entered. The factor **К** relative total mastering of knowledge by students of one group is calculated under the formula

$$K \frac{1 \, x \, N_5 + 0,9 \, x \, N_4 + 0,6 \, x \, N_3 + 0,3 \, x \, N_2}{N}$$

where **K** - mastering factor, N_5, N_4, N_3, N_2 – the quantity of the students, whose answers are estimated accordingly on «5» - 90-100 points, «4» - 70-90 points, «3» - 50-70 points, and N – total of students in group. The result was estimated on the average by the following parities: "excellent", at $0.9 \leq K \leq 1$; "good", at $0.7 \leq K \leq 0.9$; "satisfactory", at $0.5 \leq K \leq 0.7$; "unsatisfactorily", at $K < 05$;

Results of experiment were processed and tabulated for comparison.

Table 2

THE GENERALIZED COMPARATIVE RESULTS OF EXAMINATION OF STUDENTS ACCORDING TO TWO TESTS.

Groups	К	
	The control test	The total test
The control	0.74	0.62
The experimental	0.88	0.93

From the received results reflected in (table 2) and the histogram (fig. 1), and also the obtained results, it is possible to draw a conclusion that experimental work confirmed effectiveness of the process of formation of the communicative competence of the future ecologists in the process of foreign language teaching with the use of information technologies.
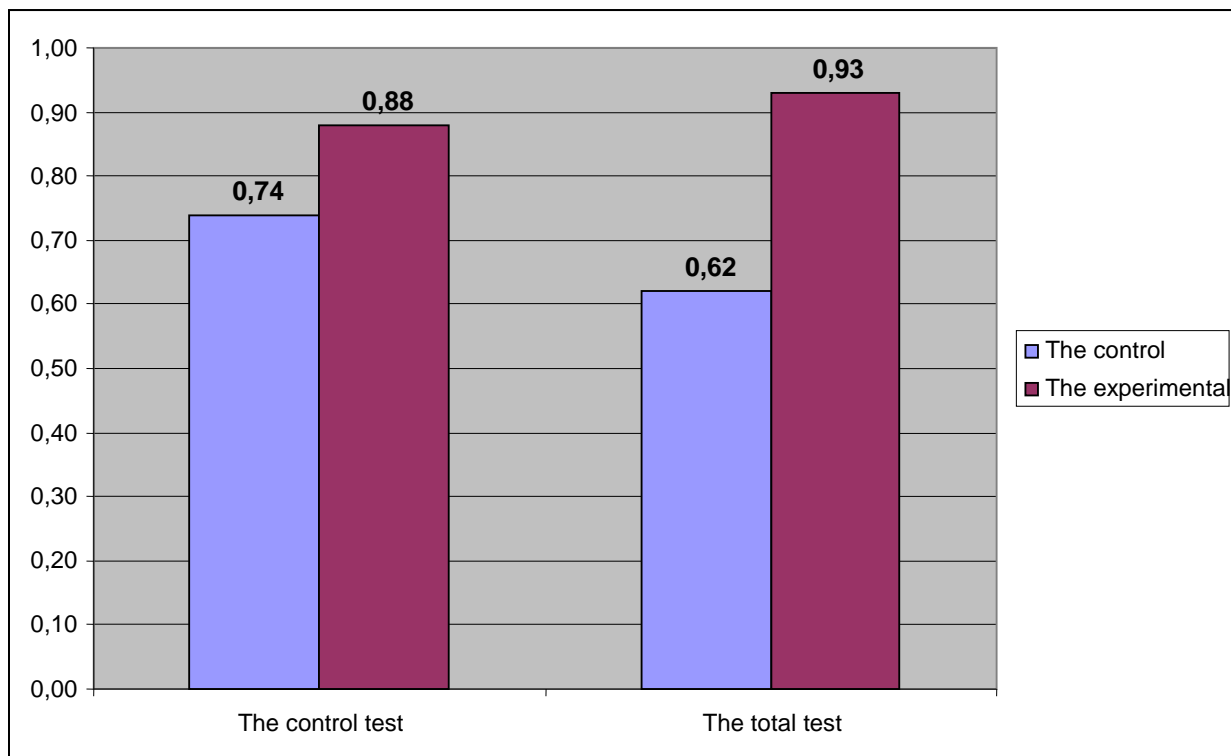
Figure 1 - THE GENERALIZED COMPARATIVE RESULTS OF EXAMINATION OF STUDENTS ACCORDING TO TWO TESTS.

Students of experimental group have received high scores in total tests:

- improvements were observed at students who experienced difficulties in mastering of a material with the use of traditional approaches;

- quantity of students, who mastered the material of foreign language on base of information technologies and used this knowledge on other disciplines raised and it influenced on the success of the group as a whole;

- students' results of experimental group were higher, than the results of control group students that proves the effectivness of the usage of information technologies in educational process;

- the usage of information technologies in teaching English improved the progress of forming communicative competence the future specialists;

CONCLUSION

Analysis of research works of many researchers show that the use of information technologies in formation of communicative competence of future specialists in the process of teaching English for the decision of educational problems, training of the specialists with the critical and creative thinking, capable to function effectively in changing conditions the process of modernization and informatization, becomes the integral component of modern professional education. In modern educational system the tendency of displacement of accents from mastering of knowledge trained on ability to use the information is traced, to receive it by means of information technologies.

Therefore formation of communicative competence of the future specialists in the process of foreign language teaching and training of specialists should include system to use of the given technologies in future professional work, especially in a context of informatization of a modern society.

In the conclusion it is necessary to notice that now in the world consecutive and steady movement to construction of an information society which urged to create the best conditions for the maximum self-realization of each person is observed. The bases for such process are intensive development of information technologies and creation of the developed information-educational environment.

Studying and the analysis of a current state of a problem of their use in an educational sphere, has shown that there are the numerous works considering possibilities, properties, functions, potential of information technology without an accurate substantiation on the basis of the fact sheet received as a result of practical activities, during experiments. The obvious lack of the researches representing theoretically well-founded methodical recommendations and pedagogical working out on their application is traced. The questions connected with development and influence of information-communication technologies on efficiency of

educational process is insufficiently worked. There are no the long and extensive researches showing degree of efficiency and expediency of support of various courses at integration of disciplines through the Internet by means of information technologies.

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