

THE FORMATION OF PROFESSIONAL COMPETENCIES OF COLLEGE STUDENTS BY MEANS OF INTERACTIVE METHODS OF TEACHING

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Abstract. The improving of the quality of vocational education is one of the main purposes in the conditions of modernization of educational environment. The essence of changes is to move from a simple transfer of knowledge, skills and abilities in the teaching process to the formation of professional competence of college students.

The article paid special attention to the training of professionally competent experts in the field of teaching activities, in particular training of future teachers of physical education by means of interactive technologies in the process of teaching a foreign language.

Professional competence of teacher of physical education is viewed by the authors as a state of experience of his thinking, which will allow him continuously and actively to provide the relations between people in the transmission from generation to generation values, norms and knowledge which are created and used by the society for the purpose of improving motor activity and healthy lifestyle, social adaptation by physical training and physical development.

Besides, in accordance with the professional activities and modern requirements the teacher of physical education should maintain and demonstrate a high level of foreign language.

The researchers conducted an experimental work on the formation of professional competencies of college students in the field of "Adaptive physical education" in the process of teaching a foreign language.

The main method of formation of professional competencies was interactive methods of teaching, such as interactive simulation, interactive emulation, interactive imitation, and interactive stimulation. As a result, we obtained satisfactory evidence of the effectiveness of competence-based and interactive approaches in the formation of professional competencies of college students.

Keywords: professional competencies, interactive methods of teaching, college students, physical education

1. INTRODUCTION

The relevance of our research is determined by the necessities of a modern society in competent professionals. This fact dictates the need of qualitative training of college students able to act as active subjects of their professional activities.

Specificity of the competency approach in training is that it is not assimilation "existing knowledge "someone" transmitted or imposed" proposed to assimilate and follow the conditions of origin of knowledge, in which the learner itself forms concepts needed for the task including its creativity, experience manifestations personal position and their own experience (Fahrutdinova, Fahrutdinov, & Konopatskaya, 2014).

A future teacher of physical education should comply with requirements of the labor market, the employer and demonstrate high professional competence.

It is defined as the integrated characteristic of the person, including the harmonious combination of professional, communicative and personal characteristics, allowing to achieve high-quality results in the process of solving tasks in different kinds of professional activities in the field of physical education (Abramov, 2006).

The researchers distinguish three levels of professional competence of teachers of physical education:

1. Low level - the teacher has theoretical and methodological training in the specialty, his activity has performing character, he can do particular technological operations; characterized by lack of interest in productive activities and low social activity.

2. The average level is characterized by stable cognitive and social activity of the teacher who realizes and accepts the values of education, owns the basic methods of rational construction activities, he can determine the goal and plan his actions, can do a complete process, however his activity has reproductive character. The relationship built by the teacher of this level, are subject-object, but the teacher takes care of the development and support of each student.

3. High level is characterized by conscious attitude to the values of education and culture, the desire for

the development of personal qualities and professional-pedagogical culture. Pedagogical activity of teacher is creative, the interaction is built on subject to subject basis, manifests itself in a humane pedagogical position (Pavicini, 2007).

However, the problem of formation of professional competencies of future teachers of physical education is not fully researched in theory and practice.

Our analysis of scientific and methodological literature and practical experience revealed the following contradictions:

- between the objective the necessity of formation of professional competencies of college students in accordance with the requirements of the labor market, employers, and the lack of scientific and pedagogical principles, complex and conditions for their formation;

- between the mandatory requirement by Federal standards of use in educational process the interactive technologies and lack of methodological support (content, forms, methods) of their realization in the system of vocational education;

-between the potential of the discipline "Foreign language" in the formation of professional competencies of college students and a lack of pedagogical conditions of its realization.

Highlighted contradictions allow determining the research problem: what are the pedagogical possibilities of using interactive methods of teaching in the educational process for the effective formation of professional competencies of students in system of vocational education.

2. METHODS

The aim of our research was to explain theoretically and prove experimentally the efficiency of interactive technologies in the formation of professional competencies of college students in the process of teaching a foreign language.

In a General, "interactive" means interaction between the he participants of the communication, during which may occur considering the opinion (Egorova, 2014).

Interactive methods of teaching are teaching with well-organized feedback of subjects and objects of

learning process with two-way exchange of information between them (Selevko, 2005).

Interactive technologies provides the most effective development of the capacity for self-actualization, because it is a revision of all available potentials and the ways their capacity to achieve results in the course of those interactions (Koroleva, & Kosterin, 2015).

In modern researches we can distinguish two approaches to understanding interactive forms and means of education: interactive methods of teaching using computer and the Internet resources, and without using computer (Calsina, 2013).

According to two criteria – the degree of interactivity of students and the degree of change of educational environment we distinguish the following types of interactive technologies of teaching: interactive simulation, interactive stimulation, interactive imitation, and interactive emulation.

1. The Interactive simulation, providing the maximum change of learning environment with maximum interaction of the students.

2. The Interactive emulation (from the English-emulate is to compete, to strive) providing the maximum interaction of students without special change of learning environment. (Muller, 1995).

3. Interactive imitation, providing the maximum change of learning environment with minimal interaction of students.

4. Interactive stimulation, providing a small change of the learning environment with minimal interaction of students.

Each type of interactive technologies is implemented in the following interactive methods and techniques.

1. The interactive simulation includes:

- interactive lecture (method: dictation with planned mistakes).

- interactive seminar (the technique of "buzzing" group).

-binary lecture (physical education class with coaches, with simultaneous translation and explanation of the foreign language teacher).

2. The interactive emulation includes:

- discussion (methods: debates, visual brainstorming).

- case studies (methods: case problem, case study).

- projects (methods: research project, predictive project, analytic project, contest, creative task).

3. The interactive imitation includes:

-the method of the excursions (methods: real excursion, virtual excursion).

4. The interactive stimulation includes:

- role play (methods: dramatization of the lesson of physical education).

- imitation game (methods: game situations (familiarity, etc).

The following types of interactive technologies contribute to the formation of all professional competencies of future teachers of adaptive physical education available in Federal standards. (Fahrutdinova, Vasileva, & Fakhrutdinov, 2017).

3. RESULTS

The original contribution of our research is:

- deepening of scientific ideas of the formation of professional competencies of college students in the process of teaching a foreign language, namely: the essence of the concepts "professional competence", "professional competencies" of college students doing in the field of 49.02.02 "Adaptive physical education" is specified. Professional competence of the graduate of professional educational institution constitutes such an experience of his thinking that enables him to find through the acquired knowledge and skills in solving professional tasks, and with the same purpose to acquire missing knowledge, skills and abilities upon detection of insufficiency of available experience and knowledge;

-developing the model of formation of professional competencies of college students, which includes the following units: methodological (the system of scientific and legal approaches, principles, goals and objectives of the process of formation of professional competencies of college students by means of interactive technologies in the educational environment of discipline "Foreign language"),

substantive (methodical content of process of training of students of the college, including the characteristics of the educational environment of discipline "Foreign language", interactive technical learning tools, interactive technologies, techniques and methods of teaching), procedural (determined the time step of the model implementation and implementation phases of interactive technologies. In addition to this procedural block contained the pedagogical conditions of formation professional competencies of college students of the), and operational monitoring (monitoring of results of activity of the teacher and students, allowing us to quickly adjust them depending on the level of the achieved result);

-definition of interactive technologies of formation of professional competencies of students in the process of teaching a foreign language: interactive simulation (dictation with planned mistakes, the "buzzing" of the group, binary lecture), interactive emulation (debates, visual brainstorming, case studies, projects), interactive imitation (a real and virtual excursions), interactive stimulation (role-playing, simulation game).

-identifying of pedagogical conditions of formation of professional competencies of college students in the process of teaching a foreign language.

The theoretical significance of our research consists in deepening of theoretical approaches to the use of complex interactive technologies in the formation of professional competencies of college students, doing in the field of 49.02.02 "Adaptive physical education"; theoretical ideas about the content of the dual potential of the discipline "Foreign language" in the pedagogical training of college students in the formation of their foreign language and professional competencies; developing content, methods and forms of interactive technologies in the process of teaching a foreign language.

4. DISCUSSION

The research site of formation of professional competencies by means of interactive technologies in the process of teaching a foreign language was "Kazan teacher training College". 105 students, doing in the field of 49.02.02 "Adaptive physical education" took part in our study.

The experiment consisted of the following stages (ascertaining, forming and control). At the ascertaining stage of the experiment by applying methods of expert evaluation we studied the initial

level of development of professional competencies of the of second year students at pedagogical college.

At the forming stage of the experiment, we used the interactive technologies providing the formation of professional competencies of students in the process of teaching foreign language such as: interactive lecture, dictation with planned mistakes, the "buzzing" group, Binary lecture, discussion, debate, visual brainstorming, case study, research project, predictive project method excursions, role-playing, imitation games.

We have identified and implemented pedagogical conditions of the formation of professional competencies of college students.

In accordance with the first condition, the content of the discipline "Foreign language" should correspond with the future professional activities of college students in the in the field of "Adaptive physical culture".

The next pedagogical condition is the design of system of interactive technologies: an interactive simulation (dictation with planned mistakes, the "buzzing" groups, binary lecture), interactive emulation (debates, visual brainstorming, case studies, projects), interactive imitation (a real tour virtual tour with pan), interactive stimulation (role-playing, simulation game) as a whole didactic, psychological and methodological procedures.

The third condition is the development and realization of model of formation of professional competencies of college students, which includes the following units: methodological, substantive, procedural, and operational monitoring.

At the control stage of the experimental work we used methods of expert evaluation to determine the level of formation of professional competencies of college students at the end of the experiment.

The comparative analysis of the results at the beginning and end of the experiment showed the increase of the level of formation of professional competencies of students of the experimental group compared with students in the control group. In both groups were quantitatively assessed the formation of professional competencies before and after the formative experiment.

The results of the survey obtained at the beginning and end of the experiment are shown in Table 1.

Table 1.:The results of the study the ultimate level of professional competencies of college students according to the expert evaluation

Diagnosed professional competencies	control group (n=51)				experimental group (n=54)			
	M	m	A fraction of the maximum level, %	The increase as compared to the initial level, %	M	m	A fraction of the maximum level, %	The increase as compared to the initial level, %
Ready to understand the goals and objectives of physical education of students	*4,02	0,11	80,48	+29,08	*4,36**	0,10	87,26	+28,59
Ready to make pedagogical development in the form of abstracts	*3,70	0,17	74,08	+24,80	*4,31**	0,09	86,17	+40,11
Ready to define goals and objectives, plan physical education of students	*3,52	0,15	70,40	+37,92	*4,21**	0,09	84,16	+46,27
Ready to give classes in physical education	*3,93	0,15	78,68	+29,30	*4,40**	0,09	88,02	+37,75
Ready to carry out pedagogical control	*3,71	0,14	74,13	+28,22	*4,00**	0,09	80,06	+33,54
Ready to work with documents	*3,29	0,17	65,79	+32,73	*3,75**	0,13	75,02	+46,14
Ready to make pedagogical development in the form of reports	*3,37	0,17	67,36	+32,10	*3,87**	0,12	77,42	+42,34
Ready to analyze training sessions, extracurricular activities	*3,25	0,14	64,96	+33,94	*3,84**	0,13	76,74	+42,38
Ready to organize extracurricular sports activities of students	*3,45	0,19	69,05	+24,95	*3,99**	0,10	79,78	+41,12
Ready to make pedagogical development in the form of speech	*3,64	0,13	72,75	+32,12	*4,13**	0,11	82,68	+39,55
Ready to participate in research and design activities	*2,89	0,19	57,74	+20,66	*3,70**	0,15	74,07	+32,78
Notes:								
* - the differences between the indices of the respective group before and after the experiment by T-test reliable (p<0,05);								
** - the differences between control and experimental groups after the experiment by t-test reliable (p<0,05).								

5. CONCLUSION

Statistical processing of the results of the experiment confirmed that the 11 professional competencies of college students, doing in the field of 49.02.02 "Adaptive physical education" have developed considerably from II to IV year of study. Moreover, in the experimental group the expression of such progress, compared with the control.

The results of the expert measurements allow us to conclude that the level of professional competencies of students of pedagogical college under the influence of interactive technologies has reached a high level, which leads to the recognition of the effectiveness of our proposed model of formation of professional competencies of college students in an educational environment of discipline "Foreign language".

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