COMPETENCY BUILDING APPROACH IN THE FORMATION OF IC-ABILITIES IN FUTURE CHEMISTRY TEACHERS

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ABSTRACT

On the given article are discussed the formation of information and communication skills of future chemistry teachers, based on a competency building approach. Creation of crosswords in chemistry in the Hot Potatoes JCross program is considered as means of positive motivation to use information technology to master the future profession.

KEYWORDS: *Competence, skills, competency building approach, professional training, information technology, educational process, Hot Potatoes JCross program.*

INTRODUCTION

At the present stage of the search for the most efficient use of human resources in almost all areas of activity, more attention has been paid to the competency building approach. A new approach to the professional training of a person trained to act actively and constructively today consist in developing a competency building approach to the formation of educational system. In the system of training specialists, the competency building approach is based on such concepts as "competence" and "competency" [1-2].

Competency – oriented higher education is an objective phenomenon in education, brought to life by socio-economic and pedagogical prerequisites. This is a reaction of higher education to changing socio-economic conditions, when the market imposes new requirements for the content of education as for goals, results and pedagogical teaching technologies [3]. As a goal in modern education, the formation of a specialist's competencies corresponding to his profile is considered. The competencies and competences of students today act as an integral socio-personal and behavioral phenomenon as a result of education.

MATERIALS AND METHODS

Recently, the training of specialists from the standpoint of a competency building approach has been increasingly discussed, since competence and competence act as an integral social and personality-behavioral phenomenon as a result of education [4]. A qualified specialists must be competitive in the labor market, to be fluent in the necessary information to navigate in related fields, must be ready for professional growth, have adaptive ability to constantly changing conditions.

The conditions for the implementation of the competency building approach in the organization of the educational process are:

- focus on the productive nature of educational and cognitive activities and the development of students' creative abilities;

- the use of forms and methods of training and education ad to the adequate to the updated content;

- technologization and algorithmization of activities;

- a high level of teacher professionalism and development management of his professional competence.

Unlike the qualification approach which is focused on the formation of a specialist's system of knowledge, skills and abilities to perform, as a rule typical kinds of professional activity the competency building approach involves the formation of a teacher's social and professional competence (integrated educational outcome), which contributes to a more effective solution of professional problems in a rapidly developing society.

The modern education system, the formation of which is connected, inter alia, with informatization and the practical use of information technologies in the educational process, puts forward among the priority tasks the formation of a teacher's professional competence in the field of using information technologies in teaching, which requires modernization content, and improve the quality of teacher education [5-7].

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Currently, more and more attention is paid to the problem of providing the education sector with the methodology and practice of developing and making optimal use of modern means of information and communication technologies, focused on the implementation of psychological and pedagogical goals of training and education.

The goal of our model is to form professional competencies among future teacher of chemistry using information technologies (information competence), which means the ability to search independently, analyze and select the necessary information, organize, transform, save and transmit it using real objects and information technologies. This competence provides the student's activity skills with information from various subjects and educational fields, as well as contained in the surrounding world. This goal determines the choice of all other structural components of the model.

RESULT AND DISCUSSION

In accordance with the goal, tasks were set, such as the formation among students:
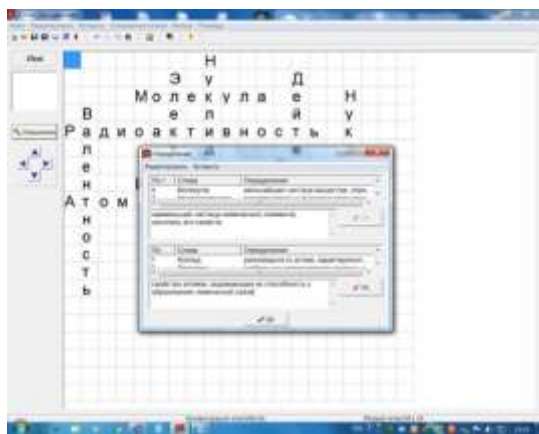
- positive motivation to use information technologies to master the future profession;
- knowledge, skills and abilities to use information technology for self-education, as well as teaching students;
- system of knowledge, skills necessary for the implementation of professional activities;
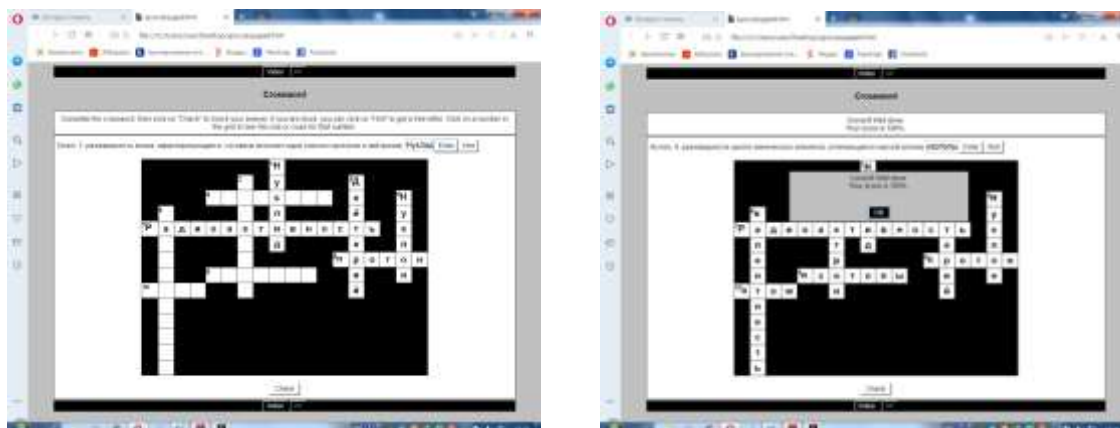
- professionally significant personality traits of a chemistry teacher.

All ICT tools that a teacher can use in the lesson have great educational potential, it is important to use it correctly in a competent manner. The use of electronic publications in the educational facilitates the lesson, allows to use individual, differentiated approach in the feedback between the student and the teacher, provides significant assistance to the teacher in preparing for the lesson, thereby motivating him to use ICT. Interactive teaching tasks have a positive effect on the motivation of students and their interest in the material being studied. In order to increase computer literacy, you master the creation of chemistry crosswords on a personal computer (PC) in the Hot Potatoes JCross program (a special program for compiling crosswords).

First, compile a crossword puzzle layout on a PC. Next, enter the meaning of each term horizontally and vertically. After that, save and ready-made template Pic. Number 1 appears on the screen. As students answer, the crossword puzzle will be completed and at the end the percentage of correct answers will be displayed [7].

The use of interactive tests helps to increase the level of information and communication literacy not only teachers, but also students and aimed at solving the most important tasks of education – to teach a school graduate to work hard in the world of global informatization.

Picture 1. Compilation and completion of crosswords on a PC.

The use of interactive tests is aimed at formation of educational, cognitive, value-semantic, informational and communicative competencies. The competence of personal self- improvement is manifested in the aspect of intellectual self-development, emotional self-regulation, independence and self-esteem.

CONCLUSION

In our opinion, the indicated model with approaches listed above makes it possible to make the process of the continuous formation of the IC competence of teachers in chemistry in the information educational space of school focused to determine the correspondence of the goal to the final results.

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