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METHODOLOGICAL FOUNDATIONS OF TEACHING ENGLISH IN THE HIGHER EDUCATIONAL INSTITUTIONS BASED ON THE CLUSTER APPROACH

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Annotation

The improvements taking place in our Uzbekistan, along with the development of industrial production, are first of all reflected in the educational system. The goal of our research is to establish cooperation of the educational system institutions with production enterprises. In order to improve the quality of training of highly qualified personnel and to promote foreign cooperations, it is significant to achieve international level in foreign languages training. The research was carried out in 2020-2022, and 12 educational institutions of our Republic participated in it. The main task of our conducted research is to create a modular system based on cluster approaches in teaching English, to develop a mechanism for teaching English based on a cluster approach specifically in the field of training biology specialists at the higher educational institutions.

Key words

teaching English, higher education, cluster approach, continued education, model, module, Natural sciences department, specialized industrial departments.

МЕТОДОЛОГИЧЕСКИЕ ОСНОВЫ ПРЕПОДАВАНИЯ АНГЛИЙСКОГО ЯЗЫКА В ВУЗАХ НА ОСНОВЕ КЛАСТЕРНОГО ПОДХОДА

INTRODUCTION

Leading scientific centers and researchers in the world are carrying out scientific research on the internationalization of the personnel training process related to the development of cooperation based on cluster approaches in the system of comprehensive education and production integration. According to the tasks defined in the UNESCO Global Convention on Education (2019) [Abdisamatov.A., 2022; 30], a special attention should be paid to learning a foreign language at educational institutions based on the cluster system. It is demonstrated

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that education enables young people to improve creative thinking skills and innovative development. Accordingly, in connection with the development of continuous education, integration of science and production, scientific research is being carried out in promising directions to improve the mechanisms of forming the scientific and theoretical foundations of the innovative cluster in the system of continuous education [Mikhailova, M., 2018; 49].

Innovation clusters in the educational system are higher education and scientific research institutions located in a certain environment, including production, where all participants in the chain system created (scientific institutions, small innovative companies, testing centers, centrally used equipment, product certifiers) laboratories, higher educational institutions and centers that train specialists and send them to places, intellectual property agency, etc.) are interactive and collaborative activities from the beginning to the end of creating an innovative product [Anistsyna N.N., 2010; 91]

RESEARCH METHODOLOGY

The principles noted in the modular system formed on the basis of our experimental work and systematic training based on the module were taken as a basis and efficiency indicators were achieved. According to this system, communication in English (General English), description of specialized resources in English (Introduction to the biological sphere), being able to express and communicate one's opinion in the specialty (Communicating in biology sphere), mastering foreign resources on agriculture and expanding one's worldview (Developing natural sciences outlook), providing information about industry news and technologies in English (Integration of education and production) are supposed to have such aspect (see table 1).

Table 1

Modular steps of teaching English to the students of biology sphere

Module number	Modules (General themes)	Hours
1	General English	126
2	Introduction to the biological sphere	126
3	Communicating in biology sphere	126
4	Developing natural sciences outlook	126
5	Integration of education and production	126
Total: 5		**630**

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1. General English

During these studies, the General English module focused on the development of communication skills of biology students in professional and non-professional situations, interviews, conversations, telephone conversations, the use of gestures and reading various texts, and the development of communication skills by creating simple applications (

2.Introduction to the biological sphere

"Introduction to the biological sphere" is taught in the 2nd semester of the 1st stage. The allocated class time for this semester is 78 hours. This semester focused on students, future biology majors, understanding their field and communicating key information to their peers and other groups. In this module, students will develop their language skills, including communicating their knowledge in a critical manner and English learning knowledge in such areas as, critical thinking, gathering information, problem solving, presenting ideas and searching for information, cause and effect while learning the language.

Lessons were created taking into account the opinions of teachers with scientific degrees and experts in the field of biology education, and attention was paid to the elaboration of developing topics under the specialty of natural sciences.

3.Communicating in the biology sphere

"Communicating in biology sphere" is a communicative module of language teaching, which is effectively used today in Europe and the USA. As the name implies, this module is based on interaction, where reading, writing, speaking and understanding dialogues are essential, which form the basis of any language learning. Of course, in this module, teachers pay more attention to the last two methods (conversation and understanding of dialogues) and complex word devices and serious lexis are not encountered in the activities dedicated to this module. The only problem encountered in this module is that students in the experimented groups mastered the words related to the field, students easily understood the content of the texts related to their specialties, but it was difficult for them to engage in serious communication with the field specialist.The purpose of this module is primarily to overcome the fear of communication.

On the basis of the above-mentioned modules and the development of students' interest in learning the language, as well as the indicators of mastering the subjects taught in the educational fields, the topics of the English language classes in the "Communicating in biology sphere" module were also improved.

4. Developing natural sciences outlook

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"Developing natural sciences outlook" is devoted to the 2nd semester of the 2nd stage of biology students. This module focused on developing oral and written skills of future professionals in their chosen field and focused on developing oral (telephone interview, teleconference, video conference) communication and written (e-mail, letters, formal requests, applications) skills in the field of biology. Moreover, according to the goals and tasks defined in this module, the experimental work carried out on the basis of the program created on the basis of the cluster approach was recorded as a continuation of the results of the module described above (see Table 7).

In this module, the following types of texts are offered for the development of students' knowledge in the agricultural sector: letters, messages, advertisements (audio/video/print), letters of recommendation, presentations on agricultural issues, video conferences, product descriptions. In addition, the following listening, speaking, reading, writing, skills-forming tasks were worked out with experimental groups on “Developing natural sciences outlook”.

5.Integration of Education and Production

Integration of science and production biology course is intended for students of the 3rd stage, and at this stage the English language is studied only for 1 semester. The focus of this module is on developing language skills, participating in tenders, conducting meetings, submitting reports, and building capacity in the fields of biology.

The purpose of the module is to develop students' public speech, to enable the future biology specialists to describe in English the process from product preparation to production. This, in turn, became the basis for teaching English based on cluster approaches. That is, the process from product preparation to production was mastered by students in the higher educational system not only through the studied specialty subjects, but also in English, and the ground was created for the development of professional personnel.

RESULTS AND DISCUSSIONS

Within these experiments, the new approach is the basis of a number of concepts of module-based training of specialists, and from this point of view, the training process is aimed at students’ sequential mastering of the elements of professional activity in accordance with the content of the modular education until the end of the training process or within a specific subject. That is, higher education taught under 4-level modules; during school-lyceum it is taught under 5-level modules with the focus on the cluster approach. Based on the teaching system in

the modules oriented on this cluster approach, the following objectives are pursued:

ensuring the continuity of teaching (between subjects and within the subject);

creating sufficient conditions for independent learning of educational material;

acceleration of training;

achieve effective mastery of science.

According to the results of the research, the following main achievements were achieved:

based on the empirical assessment of organizational conditions and pedagogical possibilities of innovative development of integration of education, science and production, a model of the English language teaching under the continuous education system based on cluster approaches was developed;

a 5-level (General English, Introduction to the biological sphere, Communicating in biology sphere, Developing natural sciences outlook, Integration of science and production) modular system of teaching English to students of the higher educational system based on the cluster approach was created.

CONCLUSION

Training an educated, modern-thinking young generation based on the goals and tasks set in the continuous education system is important in creating a system aimed at further integration of the Republic into the world community. Thus, according to the results of the research, the application of the modules formed on the basis of cluster approaches in the non-philological educational areas of higher educational institutions, in particular, in the areas of biology, made it possible to achieve positive results. The reliability of the research results and conclusions is explained by the fact that the applied approach, methods and data are obtained from official sources, that the presented analyses and the effectiveness of experimental tests are scientifically based on mathematical-statistical methods, that the conclusions, suggestions and recommendations are put into practice, and that the obtained results are confirmed by authorized structures.

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