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THE WAY OF TEACHING COMPUTER SCIENCE
THROUGH ENGLISH LANGAUGE

Abstract. This article discusses ways to learn English by technicians, including computer scientists. The author has determined the content of continuity of students' training for language and information systems. It is important to use effective methods and techniques for organizing the teaching of computer science in English, allowing integration into the world education space. Currently, teaching of information technology specialists in English is one of the most urgent problems.

The use of effective methods and techniques of new pedagogical technologies allows future technical specialists to master a foreign language easily and to master the skills of practical implementation in the educational process. Therefore, in this article we consider effective methods and techniques of teaching, adhering to the idea of combining subject and language learning.

The article also describes the content of the technology of differentiated level learning and the features of learning technology. The advantages of CLIL technology as an effective way of teaching computer science to students through a foreign language were demonstrated. Four language skills was voiced during the study of computer science in a foreign language and in this way we have given a characteristic about it.

The article said that when studying a discipline in a foreign language, it is necessary to interact with students using the latest technologies, guided by the latest innovations of foreign scientists.

In this article, you can notice that systematized technologies allow you to effectively implement the basic processes associated with obtaining knowledge.

Keywords: communication technology, English Teaching, interactive methods, skills, CLIL.

Nowadays, the system of internationalization of education is as the main factor in the development of information and educational technologies in the world contributes to the deepening of economic and scientific integration, the development of global communications. The use of modern information technologies in the system of economic management and daily activities will significantly increase the volume of information flows and their role in the functioning of these systems. This trend requires the training of professionals seeking to sustainable professional growth.

The knowledge of the foreign language is considered as an important component of the professional training of a modern specialist, an indicator of his competence. We would like to say that the knowledge of the foreign language is necessary for graduates of technical faculties, especially for specialists in the field of information technology.

English language is of great importance as a means of obtaining information and teaching a specialty. The knowledge of this language will allow graduates to study in graduate school and master's degree abroad, will be an important proof when hiring, promoting on the career ladder and will allow to reach a high level of wages.

In General, English may not be the most widely spoken language in the world, but it is the official language of many countries. The number of people in the world who use English to communicate on a

regular basis is about 2 billion people. This language is considered an important language in many developed countries. Also, studies around the world show that cross-border business communication is largely conducted in English. It should not be underestimated because of its significant importance in the world market. This language is important for all areas of information technology. It is used in business and is now the Foundation of the commercial world. Many programs are created in English in the United States or other countries, so it is the language of international communication.

English is the language of international cooperation, as most of the information on the Internet is in this language, so in many ways it is necessary to understand this language. Most of the user sites on the web were created based on English, so everyone should be to the extent that they can understand English terms.

Today, English shows interest in many countries of the world. Thus, according to research in our country, Kazakhs are actively learning English.

In 1991, the share of the English speaking population increased by only 2 %, in 2012 by 11.6 %, and now by 23.7 %. And European countries are leading in the world ranking, for example, Finland in 5th place, Poland in 20th place. This rating may reflect the integration processes of the member states. China ranks 39th in the world. [2]

At present, China is paying great attention to the study of English. There are several objective reasons for this situation: the Main language communication tool is a key key to entering the world community through English, since China is the second economy in the world. Over the past ten years, the number of people learning English in China is about 500 million people. In Chinese schools, students learn English from the third grade. The system of education in the leading universities of technical education is conducted in English and Chinese [4].

English is not only a cultural or political communication tool, but also an international language that enriches and complements the "computer" language environment. English words: file, browser, website, server, laptop, upgrade, outsourcing, startup, ICT technology, etc., have become familiar to our vocabulary.

Integrated teaching of the subject "computer Science" in English is a large-scale problem. One of the ways to solve this problem is to teach computer science in English through the method of "language environment". It can be beneficial to conduct classes in English on a specially designed schedule for 2-4 academic hours a day, without using Kazakh or Russian languages in lectures, seminars and practical classes.

As a rule, students of technical specialties do not have the level of pre-University training in a foreign language. Consequently, higher education institutions work with teaching students who are largely proficient in information technology and English.

Therefore, taking into account the differentiation of language and information training of students in technical specialties, there is a significant need to organize the teaching of the subject "Informatics" in English. The methodical system of the organization of differentiated training (technology of differentiated training) of students is insufficiently developed. The development of a methodological system for teaching computer science in a foreign language, focused on the organization of education through the technology of level-differentiated training, will ensure a high level of service for future computer science specialists in the information linguistic environment.

Differential (lat. Differentia-difference, difference) – technology aimed at specially organized educational and cognitive, spiritual and mental development of the student taking into account age characteristics, mastering the necessary amount of knowledge, practical actions on various curricula and programs [5].

Features of the level learning technology:
– the introduction of the level learning technology in the practice of teaching is due to the increase in the volume of educational information, the increase in the "load" for students;
– level learning is carried out not through the reduction of the readership, but through a variety of requirements to students;
– the student becomes a person who is able to learn and manage himself;
– the conditions for work in the creative direction are created according to the individual abilities of the student;

– during the course of the training, continuous monitoring of the development of each student over a certain period of time is provided;

– the student becomes "a person who is able to study throughout his life" in accordance with individual abilities [6].

The model of differential education in higher education N.M. Zhukov, Deborah Blaaz, Pamela J.Gent, Sandra F. Rief considers in their research works. Differentiated learning is a philosophy of education aimed at satisfying the individual needs of the students and correcting the entire classroom learning to meet these needs.

Level training asks the teacher to form the speed of learning, requires attention to what work the student is engaged in. During the course of the training, the teacher understands the importance of responding to the needs of each student in information education, and this technology contributes to the emergence of a new world before solving a certain problem.

At the same time, it should be noted that this technology is a serious problem for practical implementation, since the system of using several students ' classrooms during classes is one of the most difficult tasks.

Some teachers try to analyze learning by offering multi-level tasks that meet each level. For example, students with low learning levels may find that the process of working with this technology is much more complex than others.

Students who require a serious problem can easily find ways to work with this technology. Many teachers say that this strategy is effective because they have proven that working with numerous students is easy to implement.

Specific differentiation requires that teachers observe the "progress of the decade", know the strengths and weaknesses of these students and assign tasks to help solving the certain problems. Teachers must do all of this by observing universal standards of education in their auditorium.

In modern technology, differentiated learning is easy. Special programs can track individual student progress and see it for both the student and the teacher. They also allow students to continue completing assignments and projects.

The teacher's organization of differentiation within the auditorium consists of several stages:

1. Determination of the criterion for dividing the student into groups for differential work.

2. Diagnostics according to the selected criteria.

3. Distribution of students into groups based on the results of diagnostics.

4. Selection of differentiation methods, development of tasks of different levels for the constructed groups.

An important stage of the teacher's activity for the preparation and organization of differentiated training is the development of a system of differentiated tasks within each selected typological group of students taking into account individual differences in training.

Tasks can be represented by the following types, integrated in English:

*Sample tasks

* Tasks performed by only one part of the student (for example, a task is proposed, taking into account the difficulties that may be answered by some questions)

* Tasks with accompanying instructions (when studying new material)

* Task aimed at developing skills to justify the choice of any action with the theory in accordance with the tasks with theoretical definitions.

* Thanks to the tasks set by algorithmic instructions, the student fully justifies himself in the case of successful mastering of elementary operations.

* Presentation of the task using classification (independent drawing up of the scheme or table; presentation of the material in the established order)

* Problem-cognitive tasks will help students to master the basic logical operations.

One of the effective ways of teaching students in the second language is the integrated subject-language approach CLIL proposed by European scientists, based on the idea of combining subject and language training in the process of professional training of future specialists. The use of CLIL (Content and Language Integrated Learning) technology in higher Education institutions is recommended by the

European Commission. Efficiency allows students to simultaneously study a subject and a foreign language.

CLIP technology has a number of advantages over traditional training. Firstly, students are fully included in the language environment, as they pass through a large amount of language material. Secondly, through the subject terminology, the student's vocabulary is enriched, his skills in the field of application of an academic foreign language are developed. Thirdly, CLIP allows a deep understanding of scientific concepts, students can easily master the scientific concept, since the mastery of the term and its relationship with the corresponding scientific concept occurs simultaneously.

In the process of using CLIL, there is an interaction of cognitive processes used in the study of a foreign language, and non-language cycle disciplines, for example, have a positive synergistic effect of mathematics, which is manifested by increasing the motivation of the student to master the discipline and the second language in the development of thinking skills.

Whatever technologies are used in the process of teaching computer science in English it is necessary to use 4 systems of learning skills.

✓ Listening is one of the most important forms of speech activity when teaching a language.

✓ Reading - the main type of speech activity, semantic materials for reading.

✓ Pronunciation-it is necessary to pay attention to transparency, simplicity, the state of grammar is taken into account in second place.

✓ Writing is aimed at the formation of lexical and grammatical skills.

The CLIL technology requires the teacher to comply with the following points:

• the unification of linguistic knowledge and inter-disciplinary connections, prescription and productive skills.

• The lesson should be based on texts (printed or audio recordings).

• The language component of the lesson should not be directed at a specific structure.

• The language components of the lesson depend on the discipline.

• Lexical tasks occupy an important place in contrast to grammatical tasks.

When using two common technologies in the educational process the subject system should be at a high level. The real professionalism of the teacher contributes to the confidence of students in their abilities, maximum assimilation of the material. It is necessary to consider ways of carrying out training on modern methods, for example, in an interactive format, the project form of training. The selection of textbooks should be given to original books in the target language, as well as the latest innovations in computer science and literature in the English language reflecting attitude of scientists. It is necessary to place electronic versions of lectures, dictionaries, manuals, training programs on a network educational resource, to interact with the teacher by e-mail, Skype, SMS, social networks.

We believe that when teaching computer science in English, it is necessary to focus on training specialists who have business communication skills and are able to find the necessary information in a large volume of professional information.

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ИНФОРМАТИКА ПӘНІН АҒЫЛШЫН ТІЛІНДЕ ОҚЫТУДЫҢ МӘСЕЛЕЛЕРІ

Аннотация. Бұл мақалада техникалық мамандарга, соның ішінде информатика пәні бойынша білім алушыларга ағылшын тілін меңгертудің жолдары қарастырылды. Автор студенттердің тілдік және ақпараттық жүйе тұргысынан дайындығын сабақтастырудың мазмұнын айқындады. Білім берудің әлемдік кеңістігене енуге мүмкіндік беретін ағылшын тілінде Информатика пәнін оқытуды ұйымдастырудың тиімді әдіс-тәсілдерін қолданудың маңызы зор. Қазіргі таңда білім беру жүйесінде ақпараттық технология бойынша, білім алушы мамандарды ағылшын тілі арқылы оқыту ең өзекті мәселелердің қатарына жататыны айдан анық. Осы мәселені шешудің тиімді жолдарын нақтылау – ақпаратты ғылыми тұргыда дәлелдеуді қажет етеді. Жаңа педагогикалық технологиялардың тиімді әдіс-тәсілдерін қолдану болашақ техникалық мамандардың шет тілін оңай меңгерін, болашақта оқу-үдерісінде тәжірибе жүзінде жүзеге асыру дагдысын қалыптастырады. Сондықтан біз осы мақалада пәндік және тілдік оқытуды біріктіру идеясын ұстана отырып, оқытудың тиімді әдіс-тәсілдерін қарастырамыз.

Сондай-ак макалада денгейлеп саралап оқыту технологиясының мазмұны мен оқыту технологиясының ерекшеліктеріне сипаттама берілді. Студенттерге шет тілі арқылы инфорамтика пәнін оқытудың тиімді тәсілі ретінде

CLIL технологиясының артықшылықтары көрсетілді. Шет тілінде информатиканы оқыту барысында тілдік 4 дағдының қажеттілігі айтылып, оларға сипаттама берілді.

Мақалада пәнді шет тілінде оқыту барысында шетелдік ғалымдардың соңғы жаңалықтарын басшылыққа ала отырып және жаңа технологияларды қолдана отырып, білім алушылармен қарым-қатынас жасау мүмкіндігін жүзеге асыру керектігі айтылды.

Білім алуға қатысты негізгі үдерістердің тиімді жүзеге асуына жүйеленген технологиялар кеңінен жол ашатынын осы мақаладан аңғаруға болады.

Жалпы информатика пәнін ағылшын тілінде оқыту барысында мақалада көрсетілген әдістердің өзіндік атқаратын рөлдері ерекше. Бірімен-бірі байланысып жатқан әдістердің шет тілі арқылы пәнді меңгертудегі қолданысы нәтижелі жетістіктермен толығатынын мақалада көрсетеміз.

Түйін сөздер: коммуникациялық технология, ағылшын тілін оқыту, интерактивті әдіс, дагды, CLIL.

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ПРОБЛЕМЫ ПРЕПОДАВАНИЯ ИНФОРМАТИКИ НА АНГЛИЙСКОМ ЯЗЫКЕ

Аннотация. В данной статье рассмотрены пути изучения английского языка техническими специалистами, в том числе обучающихся информатике. Определены содержание преемственности подготовки студентов к языковым и информационным системам. Важное значение имеет применение эффективных методов и приемов организации преподавания информатики на английском языке, позволяющих интегрировать в мировое пространство образования. В настоящее время обучение специалистов по информационным технологиям в системе образования по английскому языку является одной из самых актуальных проблем. Требует уточнения эффективных путей решения этой проблемы, научного обоснования информации. Применение эффективных методов и приемов новых педагогических технологий позволяет будущим техническим специалистам легко овладеть иностранным языком, а в будущем овладеть навыками практической реализации в учебном процессе. Поэтому в данной статье мы рассматриваем эффективные методы и приемы обучения, придерживаясь идеи объединения предметного и языкового обучения.

Также в статье дано описание содержания технологии уровневого дифференцированного обучения и особенностей технологии обучения. Были продемонстрированы преимущества технологии CLIL как эффективного способа преподавания информатики студентам через иностранный язык. В ходе изучения информатики на иностранном языке была озвучена необходимость 4 языковых навыков и им дана характеристика.

В статье говорилось о том, что при изучении дисциплины на иностранном языке необходимо осуществлять взаимодействие с обучающимися с использованием новейших технологий, руководствуясь новейшими новинками зарубежных ученых.

В статье отмечается, что систематизированные технологии позволяют эффективно реализовывать основные процессы, связанные с получением знаний.

Ключевые слова: коммуникационные технологии, преподавание английского языка, интерактивные методы, навыки и умения, CLIL.

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