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LEARNING PROCESS IMPROVEMENT WHILE TEACHING ENGLISH TO FUTURE PROGRAMMERS WITHIN THE FRAMEWORK OF INTERDISCIPLINARY APPROACH

Abstract. The article describes basic postulates of applying interdisciplinary approach while teaching English language to future software engineers. Attention is driven to the necessity of applying this approach due to the interdisciplinary nature of professionally oriented English language which is being taught to future programmers. Some new interdisciplinary solutions for knowledge organization are being brought. The importance of those for effective preparation of future programmers within peculiarities of the studying process is being described.

Key words: interdisciplinary approach, English for Specific Purposes, programmers, future software engineers, knowledge organization, frames.

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ПОКРАЩЕННЯ НАВЧАЛЬНОГО ПРОЦЕСУ ПІД ЧАС ВИКЛАДАННЯ АНГЛІЙСЬКОЇ МОВИ ПРОГРАМІСТАМ В МЕЖАХ МІЖДИСЦИПЛІНАРНОГО ПІДХОДУ

Анотація. В статті розглядаються основні постулати застосування міждисциплінарного підходу під час навчання англійської мови майбутніх інженерів програмного забезпечення. Увага приділяється необхідності застосування цього підходу через міждисциплінарний характер дисципліни «англійська мова професійного спрямування», що викладається майбутнім програмістам. Наводяться деякі нові шляхи вирішення питання організації знань. Описується важливість цих рішень для збільшення ефективності підготовки майбутніх програмістів з огляду на особливості навчального процесу.

Ключові слова: міждисциплінарний підхід, англійська мова професійного спрямування, програмісти, майбутні інженери програмного забезпечення, організація знань, фрейми.

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УЛУЧШЕНИЕ УЧЕБНОГО ПРОЦЕССА ВО ВРЕМЯ ПРЕПОДАВАНИЯ АНГЛИЙСКОГО ЯЗЫКА ПРОГРАММИСТАМ В РАМКАХ МЕЖДИСЦИПЛИНАРНОГО ПОДХОДА

Аннотация. В статье рассматриваются основные постулаты применения междисциплинарного похода во время обучения английскому языку будущих инженеров програмного обеспечения. Внимание уделяется необходимости применения этого похода из-за междисциплинарного характера дисциплины «английский язык для профессиональных целей», которая преподается будущим программистам. Приводятся некоторые новые решения вопроса организации знаний. Описывается важность этих решений для увеличения эффективности подготовки будущих программистов ввиду особенностей ученого процесса.

Ключевые слова: междисциплинарный подход, «английских язык для профессиональных целей», программисты, будущие инженеры програмного обеспечения, организация знаний, фреймы.

Present-day society relies greatly on new technical solutions and software engineering is a highly required profession today. Because of this, there is a growing need for training qualified specialists of such field at technical universities of Ukraine. Thus, in this article we will take a closer look at the interdisciplinary approach to teaching English for future software engineers and possible advantaged of some of the new solutions for raising effectiveness of the studying process.

The discipline which is being studied at technical universities is English for Specific Purposes. It is a combination of general English language skeleton with software engineering repletion. Thereupon it is appropriate to apply an interdisciplinary approach to make the connections closer and to simplify the cognition process for students. The essence of this approach is the integration of learning fields, by creating correlation between the knowledge received from different scientific spheres. That is to say, along with continuous increase and

diversity of the factors that become objects for students' analysis, the most interesting problems are of an interdisciplinary character.

Scientists give different definitions to interdisciplinary connections. They can be called "didactic conditions", "didactic principles", "specific content constructions" etc. They are a complex of "conglomerates" and are built according to some inner-subject logic defining the process of perception and conceptualization. So the interdisciplinary connections are treated not only like similarities in different disciplines, but also as many-dimensional psychological and pedagogical aspects, able to influence the learning process.

Interdisciplinary connections have subjective and objective sides. The objective side deals with the content of some disciplines, defining the common aspects of one discipline to be implemented in the other one. Here the ESP teacher can't do without the cooperation with teachers of other disciplines who teach this group of students. Whereas the subjective side refers to the individual learning strategies teachers apply during the learning process. The combination of these sides is able to provide the strength of knowledge, its longevity.

To understand that we need to realize that language learning process, as an intellectual activity, combines perception, representation and through the process of thinking helps to form the system of concepts. The question to deal with here is the way how information is "packed". The key to understanding this may lead to the effective way to form necessary system of concepts according to the field of science where the learning process takes place.

Students of this field of science tend to organize and structure material that is being learned, they possess all the necessary abilities to apply interdisciplinary techniques to learning a foreign language, some knowledge organization techniques in particular. While learning other technical disciplines they make use of multiple schemes, apply different graphical solutions to classify notions. Experience in teaching English language to future programmers shows that they have a tendency to organize the new knowledge, to adjust it to understandable view, make all possible cognitive connections immediately.

In this content we paid our attention to frames approach. The general concept of frames (Minsky, 1975; 1988; Goffman, 1974; Tannen, 1993) are quite close to concepts like schemas (Bartlett, 1932; Rumelhart, 1975), idealized cognitive models (Lakoff, 1987), scripts (Schank and Abelson, 1977) and can be defined as organized packages of knowledge, beliefs, and patterns of practice that shape and allow students to make sense of their experiences.

Frames, being some thinking structures, determine the way how people perceive, remember, and reason their information, how they form assumptions. Basically they are referred to as typical data structures for representing a typical situation, global samples containing general knowledge.

In linguistics it is acquired information about a situation or a text, which describes its essence. Learning to speak in a foreign language is also a difficult cognitive, three-phase activity. It requires inner speech organization (collecting needed vocabulary and structuring grammar skeleton) before actually presenting the text. So, such organizational structures, like speaking frames, can be used while teaching English for professional purposes to future software engineers. From our point of view they can be effective while forming a well-organized conceptual understanding of the language and its structures. This is grounded on the fact that only the knowledge which is well organized can be easily retrieved, which means that it can be truly applicable. In future such knowledge system will allow new cognitive connections to be created. Further research will be devoted to studying practical application of frames in teaching English.

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