METHODOLOGY FOR INCREASING THE EFFICIENCY OF TEACHING ENGINEERS IN ENGLISH

Abstract: The article considers the design teaching methodology as an alternative to the traditional approach to education. Explores the possibilities and advantages of Project English for teaching English to engineers. It confirms the productivity of such a learning method, which activates the cognitive and creative activities of students, and also forms their personal qualities.

Key words: English, effective, student, engineers, university.

Language: English

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Introduction

Modern society makes new demands on graduates of engineering universities. They must be not only highly qualified specialists, but also speak foreign languages. Today, future specialists are faced with acute tasks of using a foreign language as a way of communication in the field of professional activity. From this it follows that foreign language teachers are faced with new tasks related to the study and implementation of new teaching methods.

The project methodology (Project English) for teaching English engineers is widespread. As experience has shown, the potentialities of this technique are great. As a rule, university students learn the language for any special, most often professional purposes. The project methodology, involving “learning through doing”, is the most suitable for the professional orientation of the educational process.

Numerous studies have found that project activity acts as an important component of a system of productive education and represents a non-standard, non-traditional way of organizing educational processes through active methods of action (planning, forecasting, analysis, synthesis) aimed at implementing a personality-oriented approach.\cite{1,7}

The design methodology, as a new pedagogical personality-oriented technology, reflects the basic principles of the humanistic approach in education:
- special attention to the individuality of a person, his personality;
- clarity, focus on the conscious development of critical thinking of students.

Thus, the project methodology is an alternative to the traditional approach to education, based mainly on the assimilation of ready-made knowledge and its reproduction.

Project training was aimed at finding ways, ways of developing an active independent thinking of the student, in order to teach him not only to remember and reproduce knowledge, but also to be able to put it into practice. The general principle, thus, on which the method of projects was based, was to establish a direct connection between the educational material and the students' life experience, their active cognitive and creative joint activity in practical tasks (projects) in solving one common problem.

The project method has been successfully developed thanks to the pedagogical ideas of the American teacher and psychologist J. Dewey, as well as...
as his students and followers: V.Kh. Kilpatrick, E.U. Collings.

J. Dewey noted: "Knowledge, which can be called knowledge, mental education leading to any goal - is given only in the process of close and real participation in active social life," [4, p.70]

The project method also attracted the attention of Russian educators at the beginning of the twentieth century. The ideas of project training arose in Russia almost simultaneously with the development of American educators; great attention was paid to the project method: Professor B.V. Ignatiev, V.N. Shulgin, M.V. Krupenin. They believed that a critically revised method of projects could ensure the development of creative initiative and independence in training, and would facilitate a direct link between the acquisition of knowledge and skills and their application for solving practical problems.

The basis of the modern understanding of the design methodology, as noted by E.S. Polat, lies "the use of a wide range of problematic, research, search methods, focused clearly on the real practical result, significant for the student, on the one hand, and on the other hand, the development of the problem is holistic, taking into account various factors, the conditions for its solution and implementation of the results."

Based on the foregoing, it is necessary to draw the following conclusion: project-based learning is always focused on independent active-cognitive practical activity of students in solving a personally significant problem, in the process of which the basic laws of scientific theory are discovered and deeply mastered.

Approaching this issue from a psychological point of view, it is necessary to conclude that the basis of project-based learning is the principle of "ego-factor", which involves such an approach to students, which can be correlated with the currently developing personality-activity approach in the teaching methodology.

Considering the design methodology in the context of the personality-activity approach, we first note what the personality means, i.e. first component. The personality, as I.A. Zimmaya emphasizes, "acts as a subject of activity, it is formed in activity and in communication with other people, and it itself determines the nature and characteristics of these processes." [4, c.71]

Thus, the student himself is at the center of the training, his motives, goals, his unique psychological mentality. The essence of the design methodology, considered in the context of personality-oriented learning, is that the purpose of the classes and the ways to achieve it should be determined from the perspective of the student, based on his interests, individual characteristics, needs, motives and abilities. An essential feature of any activity is its motivation. Since the object of learning in teaching a foreign language, according to the personality-activity approach, is speech activity, then, like any activity, speech activity should be based on the communicative-cognitive need of students to express their thoughts. This need is included in the general system of motivation. Accordingly, a teacher of a foreign language has a pedagogical and psychological problem of the initial creation, formation or preservation of a student’s already existing need for communication in a foreign language and the knowledge of a personally significant activity by this language. [4, p.70]

Based on the foregoing, the purpose of this article is to consider and analyze the use of a training project, which is an important means of creating motivation for learning a foreign language.

The most important factors that contribute to the formation of the internal motive of speech activity in project training are:

- the connection of the project idea with real life: the idea of any project should be connected with the creation of a specific product or the solution of a separate problem significant for the student, taken from real life in the process of practical activity;
- there is interest in the implementation of the project on the part of all its participants: in the process of applying the project methodology, it is very important to achieve a personal acceptance of the idea of the project and to awaken genuine interest in its implementation, which will allow us to achieve successful implementation and the effectiveness of its educational impact;
- the leading role of the advisory coordinating function of the teacher: the transition from the leader position to the position of consultant and coordinator, which gives students real autonomy and the possibility of manifesting their own initiative and independence in the process of project implementation, contributes to self-development of the individual.

University students, as a rule, learn the language for any special, most often professional purposes. Design methodology, involving “learning by doing” (“learning through doing”), i.e. the creation in the course of communication in the language being studied of a certain material product (for example: a prospectus of an imaginary company, the creation of a food card, etc.) is perfectly suited precisely for the professional orientation of the educational process.

Studying through the implementation of training projects, educational engineers get the opportunity to master the language in conditions as close as possible to the conditions of future professional activity. Thus, the project methodology not only contributes to increased communicativeness in language teaching, but also provides increased professional communicativeness, brings the educational process as close as possible to professional activities.

The aforementioned is the basis for increasing positive procedural motivation in language learning,
since learning through practical activities aimed at obtaining specific visible practical results is usually more highly motivated and more conducive to activating students than abstract learning that is not related to specific subject activity. In addition, one can not ignore that the design methodology is a game technique, that is, that turns learning into a game. [5]

During the implementation of projects, students must independently select many materials (for example, texts for reading) necessary for the implementation of project tasks. This becomes the basis for the development of self-learning skills and is most consistent with the tendency of adults to independently organize their educational work. Thus, the design methodology determines what is commonly referred to as “learner’s independence”, with all its positive effects on the internal motivation and effectiveness of learning. Thanks to “independence”, students get the opportunity to more fully realize their personal characteristics and needs for educational activities, to a greater extent to adapt learning to themselves and themselves to learning.

During the implementation of the project, different types of foreign speech activity of students are in a closer relationship than with many other forms of training. This is due to the fact that for the preparation of the project, students are forced to read numerous texts in the language being studied (both recommended by the teacher and selected independently), as well as listen to a number of texts. The information gleaned from reading and listening is actively discussed in the language being studied in the process of group work, work in pairs and microgroups. Finally, on the basis of such a discussion, written texts are compiled by the trainees themselves, which are, as a rule, the main intermediate and final material products of the project. Any such written intermediate product requires obtaining new information from reading, listening and discussing this information to create the next product, etc. Thus, each of the types of speech activity leads to the need to use other types, reinforces them and contributes to their development, which It is the basis and the most effective way required by the modern methodology of interconnected teaching of all types of speech activity in the language being studied. [7, p 124]

So, for example, in the second year you can offer a comprehensive dramatization associated with the trip of "journalists" and "speakers" to the "conference on the problems of higher education." The plot of the project may include selecting material for the conference, preparing reports and discussing them, writing travel notes, abstracts of speeches and discussions of "journalists" and other project activities with its intermediate material products. The final material product of the project may be in the form of articles written by "journalists" for their newspapers after participating in the conference.

More complex and closely related to the future specialty may be such a type of dramatization as second-year students creating a fictitious company in a fictional country and further developing and functioning of this company from the beginning to the first major commercial success. Thus, a kind of artificial “business environment” is created in the classroom, in which English is mastered for business purposes. It is students who come up with various roles, such as the manager, managers and functionaries of various levels of the company.

The very creation and development of such a fictitious company is a training project, and during its implementation numerous intermediate material products are developed, for example: business letters, draft contracts and contracts, schedules, diagrams, etc. The final material product is the development by students of a comprehensive prospectus of the company.

In all the described cases of introducing the design methodology into the educational process, its significant advantages are observed, which can be confirmed by special control sections, as well as by the results of students' questioning. It can be noted that the project methodology is an alternative approach in the modern education system; new pedagogical technology, which is a combination of search, problem methods, as a didactic means of activating the cognitive activity of students, the development of their creativity and, at the same time, the formation of certain personal qualities. This is a productive training, which is based on a paradigm of education that is different from the traditional one: “student-student-teacher” and projective teaching methods: independent planning, forecasting, decision making, detailed development of a personally significant problem, scientific research.

Prospects for further research. Thus, the basis for a creative solution to the problem, as the leading component of project training, is not only knowledge of a foreign language, but also possession of a large volume of diverse subject knowledge necessary to solve the problem. The integration process during the project training of a foreign language helps future engineers and educators to understand the role of language knowledge, which becomes the main tool for the successful mastery of foreign language activity, helps to master cultural patterns of thinking, shape their thinking strategies and boldly enter into intercultural communication. In subsequent works, we will try to present a more detailed dramatization project.
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