PROJECT TECHNOLOGIES IN THE PROCESS OF STUDENTS’ FOREIGN COMMUNICATION COMPETENCE FORMATION

The article considers the project method as a means of activating students’ educational and cognitive activity. The views of scientists regarding the place of the project method in the educational process of modern higher establishments have been analyzed. The definition of the essence of the project method has been revealed. Its types and stages of implementation have been characterized. An example of the use of the project method in the process of English grammar teaching to students of higher establishments is given.

The project method is an educational technology aimed at acquiring students’ knowledge in close connection with real life practice, the formation of specific skills in them through the systematic organization of problem-oriented educational search. The purpose of this method is to give the student the opportunity to do independent work based on language and skills acquired during a certain period of study of the topic. Project work is ideal for multi-level teams, as each task can be completed by students with different levels of preparation. In the course of the project activity students really communicate with each other and with the outside world in English.

The practical purpose of carrying out a particular project work may be based on the improvement of different skills. Some works require more oral language practice, others more focused on developing writing skills, while others require the use of certain artistic abilities. Some tasks are more suitable for individual work, others – for working in pairs or small groups. It is very important to help students choose the task and how to accomplish it so that they feel as comfortable as possible.

The benefits of the project method have been well appreciated in the teaching of subjects such as geography, history, chemistry and physics, over the years. Language training programs have only begun to systematically use this approach recently, but the results are noticeable today, as the project method is motivating, personally oriented, and of universal value.

Key words: project method, educational standards, foreign communicative competence, educational project, portfolio, students’ activity, presentation, educational technologies, project technology essence.

Foreign language competence through which the entry of personality into the world of foreign language culture is exercised, acts as a humanitarian phenomenon in the professional self-determination of the graduate of the university, in many respects determining its competitiveness in the job market. According to the requirements of the state educational standard it is an integrative educational result and is expressed in readiness of future specialist to use the acquired linguistic knowledge, skills and communicative experience in a professional and social environment.

The main purpose of social development of modern society is respect for human diversity, the establishment of principles of solidarity and security, which ensures protection and full integration into the society of all sections of the population, including persons with special educational needs. Mastering a foreign language is worth considering and should become an instrument of intercultural communication. Throughout the learning of a foreign language, communicative competence is formed, and its components are: linguistic, sociological, discursive, strategic, social and sociocultural competences. It is based on the need for two types: a) the need for communication as such, inherent in the person as a being social; b) the need to perform a specific linguistic act, the need to ‘interfere’ in a given linguistic situation. How to make this need meaningful for students is a difficult task for the teacher, thinking about what kind of challenge it is to apply to the project methodology of teaching a foreign language.

Analysis of scientific achievements and publications. Despite the variety of approaches to defining the essence of the concept of foreign language competence itself and its structure, all researchers emphasize that formation and the development of foreign language competence is possible only in language activities. Analyzing the structure of the concept, researchers, besides compulsory professional and foreign-language knowledge (the cognitive component), focus on ways of foreign language activities expressed in language skills (active component).

Based on the research of foreign and domestic authors A Adams, I. Bim, I. Chechel, R. Millrud, O. Moiseyev, A. Orlova, E. Polat, N. Sakhirova, A. Trayapitsinjji, I. Zymnya and others, who emphasize the importance of the value-semantic aspect of professional competencies, we also highlight axiological (value) component in the structure of foreign language competence, understanding that the fundamental directions in a person’s foreign-language activity are determined by its value priorities. Moreover, in the structure of the latter, along with personally significant, professional values occupy an important place. They motivate cognitive activities. Thus, foreign language competence is system-value formation of personality integrating foreign languages and professional knowledge, skills, value relationships, and its development is the process and the result of integration of knowledge, skills, value relations within the framework of educational, cognitive and professionally significant activity, moreover, value relations act as a leading mechanism development of foreign language competence, defining it axiologically significant place in professional education [Travnikova S. V., 2014, p. 193-206].
Purpose and task of the article is to define project technologies in the process of students’ foreign communication competence formation.

The main part of the article. According to the numerous researchers of the phenomenon, the most effective technology that can solve almost all above mentioned problems is a project technology. Genetic analysis of the phenomenon indicates its close relationship with project method and design (projective) methodology that is agreed to be an important productive educational tool, an unconventional way of organizing personally oriented educational process.

The method of projects has emerged since the beginning of the last century in the USA. It was also called the method of problems. It was connected with the ideas of the humanistic direction in philosophy and education developed by American educator J. Dewey and his student C.H. Kilpatrick. Subsequently, the project method has evolved. Born from the idea of free education, it is nowadays an integrated component of a structured education system [Dyui Dzh., 1999, p. 114].

But its essence remains the same, i.e. to stimulate students’ interest in solving problems that involve the possession of a certain amount of knowledge and through project activities that help to solve these problems, to develop the ability to apply their knowledge in practice, reflexive or critical thinking [Dyui Dzh., 1999].

Numerous studies conducted in our country and abroad indicate that the majority of modern leaders in politics, business, sports, and arts are people who have a project-like mindset.

The method of projects, learning in collaboration, is becoming more widespread in education systems around the world. There are several reasons for this, mainly in the social sphere:
- the need not so much to teach students how much to learn to acquire them on their own, to be able to use them to adapt to the environment, to solve new cognitive and practical problems;
- relevance of acquiring communication skills and ability to work in groups, fulfilling various social roles;
- expanding people’s contacts of acquaintance with different perspectives on one problem;
- solving problems requires a combination of mental and physical labor, which has a developmental and social value;
- the importance for the human development of the ability to use research methods; to collect necessary information, ability to analyze it, to make hypotheses, to draw conclusions.
- if a school graduate acquires the above skills and abilities, he / she is more adapted to a changing life, can navigate in different situations, work together in different teams [Saharova, N. S., 2003].

Today the school has all the opportunities to develop project thinking with the help of a special students activity i.e. project technologies.

Interest in this technology has appeared due to the fact that its use allows to solve a number of important didactic tasks in the educational process and provides not only with strong assimilation of educational material, but also intellectual and moral students’ development, their independence, kindness towards the teacher and each other, sociability, desire to help others, the formation of humanistic and cognitive values. The main, essential characteristics of the project technology are:
- the independent work of students to master knowledge, skills;
- the mandatory presence of a problem that is meaningful, relevant and interesting for the student; that stimulates cognitive activity; aims and directs search activities; does not have a single-component solution; requires analysis of different perspectives and a variety of sources; involves a variety of research methods, application of integrated knowledge [Knoll M., 1997, p. 664].

Among the important features of this technology used in higher education, we can distinguish the following features:
- the process of study is not limited to the acquisition of certain students knowledge, skills, and is organized as a practical activity that concerns the emotional and volitional spheres of personality, activates it cognitive activity and subject position;
- students get the opportunity to perform creative work within the framework of a given topic, independently find the necessary information not only from textbooks, but also from other sources of different fields of knowledge. Thus they learn to think independently, establish cause and affect relationships, find and solve problems, predict results and possible consequences of different options;
- the project successfully implements various forms of educational organization activities during which students interact with each other, as well as with the teacher (s); in project work the whole process is student-oriented, where his/her interests, life experience, abilities are taken into account first of all;
- the individual and collective responsibilities of every student for specific work within the project are intensified, as everyone should submit his/her results to the group;
- teamwork within the project teaches students to finish the job, so as a result they have to present a materialized product, namely: make a presentation, write an article, post, collect, and process statistics, audio or video recording, album design, collage, wallpapers, etc. [Kilpatrick W. H., 1918].

Project technology easily fits into the learning process, combined with traditional forms of learning. The application of the project methodology is especially relevant in the process of foreign language studying at the university as students with different levels of language performance independently determine the problem; correlate the level
of its complexity with their capabilities. At the forefront of the university is independent use of foreign language as a mean of obtaining new information, enrichment of vocabulary, extension of linguistic knowledge and applying them to new situations of environmental reality. From pedagogical point of view, foreign language as a subject has great opportunities for cultural and personal development of every student.

Modern educational standards provide a college course with communicatively oriented and professionally oriented character, and foreign language competence, therefore, includes the concept of communicativeness. When learning a foreign language the object of study is language activity, and the language system acts only as a mean of carrying out this activity, and therefore, like any activity, language activities should be based on the communicative cognitive needs of the learner to express their opinions. This need is part of a common motivation system. Accordingly, the teacher faces pedagogical and psychological problem of the original creation, shaping, or saving an already existing student needs of communication in foreign language. A training project is an important mean of generating motivation for foreign language learning. The most important contributing factors that form inner motivation of speech activity in the process of the project training usage are:

- linking the idea of the project with real life as the idea of any project should be associated with the creation of a specific product or solution of a single problem that is meaningful for the student, taken from real life in the process of practical activities;
- interest in the implementation of the project by all its participants: it is very important to achieve personal acceptance of the project idea and awakening of real interest in its realization, enabling it to be successful and enhancing it educational impact in the process of applying the project methodology;
- the leading role of the advisory and coordinating function of the teacher: moving from a leadership position to a consultant and giving students real autonomy and the ability to manifest their own initiative and independence in the process of project implementation, promotes self-development of student’s personality [‘Project methodology as an educational technology’, 2013].

Let us denote the essential methodological conditions underlying project training as a modern pedagogical technology at the stage of creative use of language material:

1. Active oral practice. To form students’ necessary skills in one or another kind of language activity as well as language competence at the level specified by the program it is required to organize active oral practice for each student in the group.

2. Communicative tasks. To form a communicative competence outside the language environment, it is not enough to saturate the lesson with conditionally communicative or communicative exercises that allow solving communicative tasks. It is important to provide students the opportunity to think, consider, solve some problems, so that students focus on their content saying that the focus would be paid on the process of thinking and speech would perform direct function, i.e. the formation and formulation of these thoughts.

3. Dialogue of cultures. To make students perceive language as a mean of intercultural interaction, it is necessary not only to familiarize them with the country-specific topics, but look for ways to get them active in the dialogue between cultures so that they can be aware the peculiarities of functioning of the language in a new culture for them [Dyui Dzh., 1999].

The main idea behind the project approach to learning a foreign language is to shift the focus from different types of exercises to active mental activity that requires its possession of certain linguistic means. Work on the project, as practice shows, contains some difficulty. Students are not always ready or capable of project activity in a foreign language, for example: to discuss, to debate organizational issues, to express the course of thought, etc. Language errors, since some of the additional information is unfamiliar for learners and cause some language difficulties are certainly inevitable. That is why repetition and generalization of the necessary grammatical and lexical material should precede the development of projects. It is advisable to carry the projects themselves on the final stage of work on the topic when we can see the already created conditions for free improvisation in working with language material.

As an example, while English grammar studying we are repeatedly practicing project “Non-finite forms of the Verb”, which is implemented in three stages. At the preparatory stage students are offered to formulate a research problem; hypothesize; to determine direction of finding information on working with hypotheses; create a project group, determine the role of each member of the group.

The main stage of the project involves updating what is already known language and grammar material on the selected topic, as well as acquaintance with new lexical and grammar units. Tasks of this stage: to organize work in small groups on information gathering, the analysis of ideas, and discussion of methods accepted hypotheses verification (observation, interview, survey, experiment); to determine forms and ways of presenting project results.

At the final stage of the project, students are invited to complete selection of information and its discussion in groups, to make a scenario of protection the project; to make a project work (in the form of collage, wallpapers, diary, journal, interview records, reports, etc.); to present the project, to analyze results of group project activity. At the same time, as practice shows, the effectiveness of application of project technology depends on many factors, among which the main are:

- students’ level of knowledge of basic features of various types of projects (research, creative, role-playing, game, etc.);
the process teacher creation the situation of success in the educational process as a positive stimulation of language activity students [Knoll M., 1997, p. 71-75].

**Conclusions.** Performing project assignments and participating in the project allows students to see the practical benefits of learning a foreign language. The consequence of this is an increase in interest in the subject, research work, cognition as a process of actualization of knowledge and their conscious application in different foreign language situations.

Design technology that we use when teaching foreign language, allowed to increase the level of students’ internal motivation, level of language material mastering and speaking as a type of language activities; level of development of communication skills and intercultural competences in general; as well as enhance the intellectual and creative students’ potential, level of their independence, value attitude to knowledge, interaction, future profession; expand social and communicative experience; develop corporate identity as a level characteristic group cohesion.

**Used literature:**

1. Dewey, J. (1999). *Psихология и педагогика мышления (как мы мыслим)* [Psychology and Pedagogy of Thinking (the Way We Think)]. Moscow : Labirint [in Russian].
2. Knoll, M. (1997). The project method: its vocational education origin and international development. *Journal of Industrial Teacher Education, 34*, 59–80 [in English].
3. Knoll, M. (2014). Project method. *Encyclopedia of Educational Theory and Philosophy*. D. C. Phillips (Ed.). Thousand Oaks, CA: Sage [in English].
4. Kilpatrick, W. H. (1918). *The project method*. New York: Columbia University Teachers college, 1978.
5. Saharova, N. S. (2003). *Развитие иноязычной компетенции студентов университета [Текст]*: монография / Н. С. Saharova. – Москва : Сфера, 2003. – С. 193-206.
6. Травнікова С. В. Використання проектної технології на уроках англійської мови // Освіта.ua. URL: http://osvita.ua/(дата звернення: 20.01.2020).
7. Knoll M. *Project Method / M. Knoll.* – In D. C. Phillips (ed) *Encyclopedia of Educational Theory and Philosophy*, Vol. 2 (London: Sage), 2014 – P. 665-669.
8. Knoll M. The Project Method: Its Vocational Education Origin and International Development / M. Knoll. – Journal of Industrial Teacher Education, 1997. – P. 34, 59-80.

**References:**

1. Dewey, J. (1999). *Psihologiya i pedagogika myishleniya (kak my myislim)* [Psychology and Pedagogy of Thinking (the Way We Think)]. Moscow : Labirint [in Russian].
2. Knoll, M. (1997). The project method: its vocational education origin and international development. *Journal of Industrial Teacher Education, 34*, 59–80 [in English].
3. Knoll, M. (2014). Project method. *Encyclopedia of Educational Theory and Philosophy*. D. C. Phillips (Ed.). Thousand Oaks, CA: Sage [in English].
4. Kilpatrick, W. H. (1918). *The project method*. New York, NY: Columbia University, Teachers College. Retrieved from http://http://www.educationengland.org.uk/documents/kilpatrick1918/index.html [in English].
5. Metod proekativ yak tekhnolohia navchannia [Project methodology as an educational technology]. (n.d.). pidruchniki.com. Retrieved from https://pidruchniki.com/11570718/informatika/metod_proekativ_tehnolohiya_navchannya [in Ukrainian].
6. проектні технології в навчанні [Project Technologies of Education]. (n.d.). uk.wikipedia.org. Retrieved from https://uk.wikipedia.org/wiki/Проектні_технології_в_навчанні [in Ukrainian].
7. Saharova, N. S. (2003). *Развитие иноязычной компетентности студентов университета [Текст]*: монография / Н. С. Saharova. – Москва : Сфера, 2003. – С. 193-206.
8. Травнікова С. В. Використання проектної технології на уроках англійської мови // Освіта.ua. URL: http://osvita.ua/school/lessons_summary/edu_technology/40940/ [in Ukrainian].
роботи, інші — для роботи в парах або малих групах. Дуже важливо допомогти студентам обрати завдання та такі методи його виконання, щоб вони почувалися максимально комфортно.

Переваги методу проектів були належно оцінені у викладанні таких предметів, як географія, історія, основи хімії та фізики, уроджены багатьох років. Мовні навчальні програми почали систематично використовувати цей підхід тільки недавно, проте результати помітили уже сьогоден, тому що метод проектів мотивує, особистісно зорієнтований, має загальноосвітню цінність.

Ключові слова: метод проектів, стандарти освіти, іншомовна комунікативна компетенція, навчальний проект, портфоліо проекту, діяльність студентів, презентація, технології навчання, сутність проектної технології.

УДК 378.147:004.056.5
DOI https://doi.org/10.31392/NPU-nc.series5.2020.72-2.02

Макаренко Л. Л., Остапчук Т. С.

ВИЗНАЧЕННЯ СУТНОСТІ ТА ЗМІСТУ ІНФОРМАЦІЙНОЇ КОМПЕТЕНТНОСТІ МАЙБУТНІХ ІНЖЕНЕРІВ В ПРОЦЕСІ ПРОФЕСІЙНОЇ ПІДГОТОВКИ

Висвітлено основні наукові підходи до визначення сутності та змісту інформаційної компетентності майбутніх інженерів у процесі професійної підготовки, окреслено складові інформаційної компетентності військового інженера. Проаналізовано групові дослідження вітчизняних та закордонних науковців щодо тлумачення та розуміння сутності професійної компетентності майбутніх інженерів. З огляду на сукупність знань в майбутньому військовому інженера, зазначено її складні структурні відмінності від комп'ютерної компетентності. Доведено, що інформаційна компетентність насамперед зумовлює здатність майбутніх військових інженерів використовувати результати інформаційної компетентності як якісної характеристики життєдіяльності фахівця в галузі розкриття, передачі, збереження та використання інформації, де пріоритетним є загальномасштабна моральна цінність, зорієнтована на змістовний високий рівень компетентності. Особистісний підхід до вивчення компетентності майбутнього інженера, а саме: системний, особистісний, діяльнісний, інтегративний, компетентнісний. Інформаційна компетентність має високу значущість у процесі розвитку соціуму, особистих цінностей, соціальних та економічних якостей інженера, а саме: системний, особистісний, діяльнісний, інтегративний, компетентнісний. Визначений аспект зумовлює стрімкий процес самооцінки людини, вироблення стійкої мотивації до навчання, а також до формування інформаційної компетентності як динамічної, інтегральної властивості.

Ключові слова: компетентність, інформаційна компетентність, професійна підготовка майбутніх військових інженерів, наукові підходи.

Глобалізація та інформатизація докорінно змінили наше суспільство. У результаті створення глобальних систем соціальних комунікацій інформаційна цивілізація стала реальністю. В цій реальності сьогоден, створення інформаційного середовища кожного конкретного навчального закладу і регіональних органів управління є об'єктивною необхідністю педагогічного сьогоден.

Розширення сфери інженерної діяльності з історичним розвитком суспільства — це закономірний процес, який полягає в її розповсюдженні, укоріненні в нових, раніше далеких від неї формах людської діяльності. Процес розвитку інформаційних технологій суттєво змінив інженерну діяльність, яка набуває все більшого значення в сучасному суспільстві. Водночас ціна інженерних рішень, їх соціальних та екологічних наслідків стає все більшою, що висуває нові вимоги до професійних та особистісних якостей інженера, які стосуються цілей та ідеалів, які приймаються та інші рішення. Сучасний інженер має не лише задовольняти споживчі вимоги недалекого майбутнього, а й враховувати соціальні наслідки рішень, формування інформаційної компетентності як динамічної, інтегральної властивості.