

THE USE OF ENGLISH SCIENTIFIC ARTICLES IN THE PROCESS OF TEACHING FOREIGN LANGUAGES TO ENGINEERING STUDENTS

Vinnytsia National Technical University

Анотація.

У статті проаналізовані різні види та форми роботи студентів будівельних спеціальностей із фаховими англійськими публікаціями в процесі вивчення англійської мови; укладений перелік рекомендованих сучасних наукових статей із англійських сайтів; визначена ефективність цього виду роботи у формуванні іноземних комунікативних навичок студентів при поєднанні цього методу з іншими традиційними й інноваційними методами навчання.

Ключові слова: навчання англійської мови у технічних ЗВО, студенти будівельних спеціальностей, інноваційні технології викладання, інформаційні технології, сучасні методи навчання.

Abstract.

The article examines various types and forms of the technical students' work with the scientific articles in the process of learning English. Author also compiled list of recommended modern scientific articles from English-speaking websites and determined the effectiveness of this type of work in the development of students' foreign language communicative abilities.

Keywords: teaching English in higher technical educational institutions, engineering students, innovative teaching technologies, information technologies in teaching, modern teaching methods.

Introduction

Great competition in the labor market requires a fairly significant list of knowledge, abilities and skills from future employees. Proficiency in English at a high level is one of the most important requirements in both Ukrainian and international companies. Employers prefer job applicants who are fluent in specific terminology and can freely describe complex technological processes in a foreign language.

In 2013, the International Labor Organization (ILO) analyzed the labor market requirements for graduates of higher education institutions. The results of this analysis are disappointing, because according to them, a large number of qualified specialists do not meet the expectations of employers. One of the main reasons for the discrepancy was the insufficient level of knowledge of a foreign language and low level of communication skills [1, 82].

That is why the main goal of teaching the subject "English for Specific Purposes" in colleges and universities is the formation of specific foreign language communication skills that will makes students competitive in the international labor market, gives access to scientific achievements of the whole world, improving training of qualified technical professionals.

The purpose of the article is to study various types and forms of work with professional English-language publications in the process of learning English by engineering students.

Research results

Modern teachers have a wide range of innovative teaching tools at their disposal, and the use of modern information technologies in teaching "means not only the use of modern technical means and technologies, but also the use of new forms and methods of teaching a foreign language and a new approach to the learning process as a whole" [2, 277]. However, "the introduction of new technologies into the educational process does not exclude traditional teaching methods at all, but harmoniously combines with them at all stages of education: familiarization, training, application, control" [3, 334].

Teaching foreign languages in higher technical educational institutions has its own peculiarity, since students have different initial levels of English language competence, and the number of academic hours allocated to foreign language learning is critically small. In this regard, much attention is paid to the self-

dependent work of students, and therefore the processing of scientific articles in English is one of the effective means of motivating students to study and increasing the level of their communicative competence.

Having practically unlimited access to the Internet, students can easily download the text of the publication to their electronic devices using the hyperlink provided by the teacher in order to be able to process it. The main criteria by which the article is selected are its relevance, informational value and availability.

Publications about the specifics of using certain building materials will be relevant for engineering students: «*A Home Made of Wood: Consumer Experiences of Wooden Building Materials*» (Noora Viholainen, Eliisa Kylkilahti, Minna Autio, Anne Toppinen), access mode: https://www.researchgate.net/publication/340715725_A_home_made_of_wood_Consumer_experiences_of_wooden_building_materials, about different ways of using these materials: «*Durable Construction Material*» (John L. Clarke), access mode: <https://www.sciencedirect.com/topics/engineering/durable-construction-material>, or about the use of Information Modeling in the design of various architectural structures: «*A Design for Safety (DFS) Framework for Automated Inspection Risks in Metro Stations by Integrating a Knowledge Base and Building Information Modeling*» (Ping Liu, Yongtao Shang, Lei Zhang), access mode: https://www.researchgate.net/publication/369104769_A_Design_for_Safety_DFS_Framework_for_Automated_Inspection_Risks_in_Metro_Stations_by_Integrating_a_Knowledge_Base_and_Building_Information_Modeling.

Teachers give these articles to students for self-dependent study, having previously carried out a joint translation with them of rarely used specific English words and terminological phrases. The result of processing may be a short discussion of the article in class or writing an annotation to the text.

In this way, students not only enrich their professional lexicon and develop the ability to translate authentic texts, but also acquire practical skills in working with primary sources, which will definitely have a positive effect on the quality of their scientific projects, course and diploma theses, and also give them the opportunity to follow the development trends of a certain industry in the world.

A very productive way of working with scientific articles in English is a round table meeting, where each participant (or group of participants) covers a certain part of the topic, based on the text provided by the teacher, supplementing it with additional information from other sources.

Engineering students can demonstrate their professional competence by preparing a short but informative mini-report using such article: «*17 Innovative Construction Materials Changing How We Build*», access mode: <https://www.planradar.com/gb/top-15-innovative-construction-materials/>. Each student can choose one or two building materials for his presentation, talk about their structure, cost, using, etc.

Discussion is more difficult type of work with scientific articles, because in order to participate in the discussion, students must be fluent in specific terminology, build complex sentences using appropriate grammatical forms, and be able to create their own statements, formulating arguments or counterarguments. Due to the high level of complexity of this type of activity, we recommend to use it in the second year of studying a foreign language.

Discussions about the following topics are meaningful and professionally oriented: «*What Is Modern Architecture, Anyway?*» (Erin Migdol), access mode: <https://www.getty.edu/news/what-is-modern-architecture-anyway/>, «*How can we redefine modular construction for a new era?*», access mode: <https://www.pbctoday.co.uk/news/guides-reviews/redefine-modular-construction/113107/>

In general, the question of determining the advantages / disadvantages of any research subject provides a wide range of topics for discussion, for example:

- «Advantages and Disadvantages of Wooden Building Materials»;
- «Advantages and Disadvantages of Timber in Structures»
- «Advantages and Disadvantages of Traditional Building Materials»
- «Advantages and Disadvantages of Modern Building Materials» etc.

Such discussions allow students to deviate from the usual patterns of expression, give an opportunity to express their opinion, expand their general and professional horizons, and most importantly – increase the level of communicative and social competence of the future specialist.

Conclusions

Therefore, practical training of different types of communicative activities requires certain teaching aids that correspond to the nature and specifics of the activities. English scientific articles are an effective

tool of forming students' foreign language communication skills, especially if they are combined with other traditional and innovative teaching methods for mastering professional language communication.

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Андросчук Катерина Миколаївна – викладач кафедри іноземних мов, Вінницький національний технічний університет. E-mail: katja111andros4uk@gmail.com

Androshchuk Kateryna Mykolayivna – Lecture, Chair of Foreign Languages, Vinnytsia National Technical University, Vinnytsia, e-mail: katja111andros4uk@gmail.com