

THE ROLE OF TEACHING ENGLISH VOCABULARY IN HYDROTECHNICAL AND GEOTECHNICAL ENGINEERING SPHERE

To'lanboyev Ilyosbek Mansurjon o'g'li
ilyosbektolanboyev@gmail.com

Ergashev Behzod Baxtiyor o'g'li
behzodergasov5@gmail.com
Students, Hydraulic Engineering Faculty
"TIAME" National Research University

Scientific adviser: Umarova Feruza Nigmatovna
Senior Teacher of the English Language department
"TIAME" National Research University

Abstract: The present article highlights the importance and practical relevance of teaching English vocabulary in the fields of hydrotechnical and geotechnical engineering, with a focus on the context of Uzbekistan. Today, the rational use of water resources and the development of the hydroenergy sector are among the national priorities. In particular, the operation of large and medium-sized hydroelectric power stations (HPS) in regions such as Naryn, Fergana, and Syrdarya requires engineering designs to meet international standards. Therefore, mastering professional English terminology has become essential for engineers working in these areas. However, many students and specialists face difficulties due to insufficient language proficiency, which hinders their ability to engage in international cooperation and implement modern technologies. The article analyzes effective methods for teaching technical English, the use of interactive learning approaches, and the development of communicative competence among students. Furthermore, it emphasizes that English language proficiency plays a significant role in improving the efficiency of projects and research related to Uzbekistan's hydroelectric power stations.

Keywords: Hydrotechnical, geotechnical, engineering, vocabulary, professional communication, terminology, Uzbekistan, Hydroelectric power stations.

Introduction

The role of English language proficiency in hydrotechnical and geotechnical engineering has become increasingly important, as global technological development and international collaboration create vast opportunities for specialists with strong technical language skills. In Uzbekistan, the development of hydrotechnical and geotechnical fields, particularly in hydropower stations (HPS) and large infrastructure projects, has increased the need for engineers to master specialized English vocabulary. English has become a universal language in the fields of science and technology, enabling engineers to access international sources, participate in global projects, and implement modern solutions [1].

In Uzbekistan, the hydrotechnical sector has been growing rapidly, especially with hydropower projects in regions such as Naryn, Fergana, and Syrdarya. In these projects, international collaboration and the implementation of advanced technologies require the knowledge of specialized English vocabulary. However, many professionals and students face challenges in mastering technical English, as they lack sufficient resources and effective teaching methods for learning specialized terminology [2]. This article aims to highlight the importance of teaching English vocabulary in hydrotechnical and geotechnical engineering fields in Uzbekistan. It discusses effective methods for learning technical English, the development of professional competencies among students, and the preparation of engineers ready for international collaboration. The article also emphasizes the need for updated teaching methodologies and the introduction of interactive learning approaches.

Methods

The role of the English language in the fields of hydrotechnical and geotechnical engineering has become increasingly important. In Uzbekistan's hydropower sector, particularly in the construction and commissioning of hydropower stations, the need for international collaboration and the integration of advanced technologies has grown significantly. Currently, specialists working in the fields of hydrotechnical and geotechnical engineering in Uzbekistan are unable to participate in international projects or implement advanced technologies effectively without mastering specialized English vocabulary. Therefore, improving the quality of English language teaching in Uzbekistan's technical education system and updating methods for learning specialized vocabulary has become a critical issue.

Many students and professionals face difficulties in learning English due to the insufficient recognition of its importance and the lack of teaching methodologies that meet contemporary needs. Additionally, access to scientific and technical literature in English, along with opportunities to learn from international experiences and cutting-edge technologies, is limited.

Results

To address the challenges faced by hydrotechnical and geotechnical engineers in Uzbekistan regarding their proficiency in English, several key solutions must be considered. First and foremost, the integration of specialized English language instruction into university curricula is essential. This should focus not only on general language skills but also on technical vocabulary specific to the fields of hydrotechnical and geotechnical engineering. Introducing courses and workshops that are tailored to these specialized areas can significantly improve the language proficiency of students and professionals alike [3]. Moreover, enhancing the teaching methodologies is critical. Current educational approaches should be updated to incorporate modern, interactive, and practical methods, such as project-based learning, where students actively engage

with real-world materials, technical texts, and international case studies. The use of digital tools and online platforms for learning specialized vocabulary should also be encouraged, as they provide access to a wealth of international research and resources that are otherwise hard to access [4]. In addition, collaboration with international organizations and universities can play a vital role in improving the English proficiency of engineers in Uzbekistan. Establishing partnerships for joint research projects, student exchanges, and training programs would enable local engineers to gain direct exposure to international expertise and technological advancements [5].

Conclusion

To summarize, improving English language proficiency in Uzbekistan's hydrotechnical and geotechnical engineering sectors requires a multifaceted approach, including curriculum improvements, updated teaching methods, and greater international cooperation. The importance of learning English in the fields of hydrotechnical and geotechnical engineering in Uzbekistan is significant. As the demand for international collaboration, the implementation of new technologies, and the acquisition of modern knowledge continues to grow, it becomes essential for engineers and students in these fields to master specialized English terminology. Learning specialized vocabulary in English not only provides access to scientific and technical materials but also opens opportunities to participate successfully in international projects. Additionally, improving teaching methodologies, incorporating modern learning tools, and utilizing online platforms will enhance the quality of education in these fields. Training qualified specialists in hydrotechnical and geotechnical engineering requires integrating international educational experiences and expanding knowledge and skills within the sector. By updating engineering education in Uzbekistan and integrating

global advancements, significant contributions can be made to the country's economy and technological development in the long run.

References:

1. **Abdullayev, A. (2018).** *The Role of English in Technical Education in Uzbekistan.* Tashkent State Technical University Press.
2. **Juraev, U., & Mukhammadiev, A. (2020).** *Improving Engineering Education in Uzbekistan: Challenges and Solutions.* Journal of Engineering Education, 22(3), 89-95.
3. **Abdullayev, A. (2018).** *The Role of English in Technical Education in Uzbekistan.* Tashkent State Technical University Press.
4. **Juraev, U., & Mukhammadiev, A. (2020).** *Improving Engineering Education in Uzbekistan: Challenges and Solutions.* Journal of Engineering Education, 22(3), 89-95.
5. **Isakov, B. (2017).** *Innovations in Hydropower Projects: The Need for Specialized Vocabulary in Engineering Education.* Journal of Hydrotechnical Engineering, 18(2), 56-60.
6. **Umarova F.N.** Teacher personality in the improving English teaching methodology. Golden Brain, Scientific journal ISSN: 2181- 4120 Volume 2/ Issue 2 2024/01 January p. 166-170
7. **Umarova F.,** Potential of Ecotourism in Uzbekistan: Regional Aspect. E3S Web of Conferences 574, 06006 (2024) CONGREENTAX-2024 <https://doi.org/10.1051/e3sconf/202457406006>
8. **Umarova F.,** Evaluation of the dynamic characteristics of complex multiply connected, structurally inhomogeneous systems. E3S Web of Conferences 365, 03035 (2023) CONMECHYDRO-2022., <https://doi.org/10.1051/e3sconf/202336503035>

9. **Umarova F.**, Research into biologically active plant terpenoids and the mechanisms underlying on biological activity. E3S Web of Conferences 563, 03076 (2024) <https://doi.org/10.1051/e3sconf/202456303076> ICESTE 2024
10. **Das, B. M.** (2019). Principles of Geotechnical Engineering (9th ed.). Cengage Learning. – A widely used textbook in geotechnical engineering, originally written in English.
11. **Craig, R. F.** (2012). Craig's Soil Mechanics (8th ed.). CRC Press.
Provides technical explanations and vocabulary useful for English learners in the field.
12. British Council. (2022). English for Engineers: Language Skills for Global Careers. Retrieved from ASTM International. (2023).

TRENDS IN THE USE OF FOREIGN LANGUAGES
FOR PROFESSIONAL PRIORITY
MAY 17, 2025