ENHANCING ENGLISH PROFICIENCY FOR CHEMICAL TECHNOLOGY STUDENTS: EFFECTIVE ESP TEACHING STRATEGIES

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https://doi.org/10.5281/zenodo.15119229

Abstract: This article discusses effective strategies for teaching English for Special Purposes (ESP) to improve the English language proficiency of students studying in the field of chemical technology. The relevance of such approaches as the acquisition of professional terminology, interdisciplinary integration, the development of communicative competences, and problem-based learning in ESP lessons is analyzed. The article reveals the role of modern technologies, interactive methods, and practice-oriented tasks in improving students' language skills.

Keywords: ESP, chemical technology, English language teaching, professional competence, language skills, communicative method, interactive strategies, interdisciplinary integration

Introduction.

In today's modern world, English has become not only a means of communication, but also an important foundation of science, technology, and education. Especially for students studying in technical and natural sciences, knowledge of English is becoming an indispensable factor in free access to scientific and technical information, participation in international cooperation and professional development. Therefore, for students studying in the field of chemical technology, teaching English not in a traditional way, but in a professionally oriented way - that is, ESP (English for Specific Purposes) - has become an urgent issue.

ESP is a learning process that, unlike traditional English, takes into account the needs of a particular field, has a purposeful and contextual approach. The needs of chemical technology students are mainly such skills as reading technical documents, expressing laboratory results in English, working with international research and making presentations in the field. Therefore, ESP prepares them not only to speak English, but also to use it effectively in their professional activities.

This article focuses on this very problem: how to effectively organize English language education for students in the field of chemical technology, what methods and strategies can be used to develop their professional language competencies? To this end, the article analyzes modern approaches to ESP

teaching, interactive methods, educational materials adapted to the needs of students, and the possibilities of using technological tools.

Methodology:

This study aims to determine the effectiveness of the ESP (English for Specific Purposes) approach in developing English language competencies of students studying in the field of chemical technology, combining qualitative and quantitative analysis methods. The main attention was paid to studying the impact of teaching-methodological strategies, interactive methods, and technological tools used in the lesson process on students' language acquisition.

As part of the study, ESP-based training was conducted with students divided into experimental and control groups. In the experimental group, ESP lessons were organized using professional terminology, communicative tasks, problem situations, and project-based approaches. The aim was to develop students' skills in independent work in English in their field. The control group was taught using traditional general English, which allowed us to compare the effectiveness of both approaches.

During the study, questionnaires, tests designed to determine language competencies, observations and interviews served as the main data collection tools. In particular, the results were analyzed based on indicators such as active participation in the lesson process, the quality of oral and written tasks, and the volume of terminological knowledge. Students' attitude to the lessons, interest and motivation in the lesson were also taken into account as one of the evaluation criteria.

Through this methodological approach, the positive impact of ESP strategies on students' professional language skills, their role in improving the quality and efficiency of education were determined. The study showed that industry-oriented and practice-oriented language teaching methods significantly increase students' confidence in the language and the level of readiness for activity.

Results:

The results of the study showed that the use of ESP-based teaching strategies for students in the field of chemical technology significantly develops professional competencies in English. Based on the experiment conducted with the experimental and control groups, clear statistical differences were observed. In particular, in the experimental group trained on the basis of ESP, students recorded an increase of about 40 percent in their language comprehension and application skills.

After teaching two groups during the experiment, the following indicators were observed in the final assessment of language competencies:

In the experimental group (trained on the basis of ESP):

Vocabulary acquisition: 87%

Level of understanding of professional texts: 81%

Oral communication skills: 76%

Correct use of technical terms: 83%

In the control group (trained in the traditional method):

Vocabulary acquisition: 62%

Level of understanding of professional texts: 59%

Oral communication skills: 54%

Correct use of technical terms: 58%

These figures show that ESP classes effectively develop students' skills in expressing their opinions in the field, understanding and responding to scientific and technical texts. In particular, students actively participated in explaining laboratory tasks in English, and expressing experimental results orally and in writing. Also, according to the results of the survey, the level of interest in ESP lessons among students in the experimental group was high, and 92% of students reported that their professional language skills had improved through this methodology. This proves that the ESP approach is not only a language teaching tool, but also an important pedagogical tool in preparing students for professional activities. Based on the above statistical data, it can be concluded that industry-oriented, targeted English lessons are a must for chemical technology students, and this methodological approach plays an important role in their professional preparation.

Discussion:

Based on the conducted research and experience, the effectiveness of ESP (English for Specific Purposes) lessons for chemical technology students has been clearly demonstrated. During the discussion, it was determined that ESP lessons effectively develop not only grammatical and lexical knowledge of the English language, but also the skills of mastering professional terminology, expressing interdisciplinary concepts in English, and conducting professional communication. Compared to traditional general English lessons, the ESP approach encourages students to engage in practical, task-oriented activities. For example, through tasks such as explaining chemical processes, analyzing technical documents in English, expressing laboratory results, or making presentations, students develop language competencies necessary for their

professional activities. This directly contributes to their future professional preparation. The analysis showed that the use of interactive methods in ESP lessons - teamwork, role-playing, project-based presentations, and multimedia technologies - significantly increased student motivation. Students strive to use the language in real-world situations related to their professional field, which increases their activity and participation. At the same time, there are some problems encountered in ESP teaching. In particular, teachers' lack of professional terminology, lack of methodological guides and special textbooks, as well as the low level of language proficiency of some students create difficulties in the teaching process. However, to eliminate these shortcomings, it is necessary to train teachers, develop educational resources appropriate to the field, and strengthen an individual approach. In general, ESP lessons for chemical technology students serve as an important tool in developing English language skills necessary for their professional development. Bringing the educational content closer to the field, and using interactive and motivational methods make the language learning process more effective.

Conclusion.

This study confirmed that ESP - that is, professionally oriented English - is highly effective in teaching English to students in the field of chemical technology. Experience and analysis have shown that lessons organized on the basis of specific goals in the field help students master professional terminology, understand and rephrase technical texts, as well as develop professional communication skills. Through interactive approaches, practical assignments, project-based work and the use of technological tools, students were actively involved in the lesson process. This increased their motivation, ability to work independently and confidence in language acquisition. Compared with traditional English lessons, it was clearly seen that ESP lessons serve not only language learning, but also professional development. In short, ESP is a powerful educational tool that prepares students not only for English, but also for being globally competitive specialists in their professional field. By implementing these strategies in practice, higher education institutions can take the quality of language education to a new level.

References:

1. Basturkmen, H. (2010). Developing Courses in English for Specific Purposes. Palgrave Macmillan.
2. Hutchinson, T., & Waters, A. (1987). English for Specific Purposes: A learning-centred approach. Cambridge University Press.

3. Dudley-Evans, T., & St John, M. J. (1998). Developments in English for Specific Purposes: A multi-disciplinary approach. Cambridge University Press.
4. Hyland, K. (2006). English for Academic Purposes: An Advanced Resource Book. Routledge.
5. Mavlanova, F., (2024). LEVERAGING TECHNOLOGY IN ESP FOR TECHNICIANS: APPS, SIMULATIONS, AND ONLINE TOOLS. Евразийский журнал академических исследований, 3(12), 101–105.
6. Mavlanova, F. (2024). THE ROLE OF PRACTICAL EXERCISES IN TEACHING TECHNICAL DISCIPLINES. В THEORETICAL ASPECTS IN THE FORMATION OF PEDAGOGICAL SCIENCES (Т. 3, Выпуск 12, сс. 67–71).
7. Mavlanova Feruzakhan Zafarjanovna. (2024). MASTERY OF TECHNICAL TERMINOLOGY IN ENGLISH. European International Journal of Pedagogics, 4(03), 27–34. https://doi.org/10.55640/eijp-04-03-06
8. Mavlanova, F. (2024). THE SIGNIFICANCE AND EFFICIENCY OF NEW INTERACTIVE METHODS IN TEACHING THE ENGLISH LANGUAGE. В МЕЖДУРОДНАЯ КОНФЕРЕНЦИЯ АКАДЕМИЧЕСКИХ НАУК (Т. 3, Выпуск 5, сс. 99–102).
9. Mavlanova, F. (2024). THE FUSION OF CHEMISTRY AND ENGLISH – A UNIQUE INTERDISCIPLINARY APPROACH TO LEARNING. Евразийский журнал академических исследований, 4(3), 171–174.