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IMPROVING THE METHODOLOGY OF TEACHING ENGLISH IN TECHNICAL HIGHER EDUCATION INSTITUTIONS

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Abstract: This article explores modern methodological approaches to teaching English in technical higher education institutions. With the rapid advancement of science and technology, the integration of English language instruction into engineering and technological curricula has become crucial. The study analyzes effective strategies for enhancing students' professional communication skills in English, focusing on subject-specific vocabulary acquisition, technical reading, writing, and speaking competence. Emphasis is placed on the use of task-based learning, content and language integrated learning (CLIL), and project-based activities to foster motivation and contextual learning. Moreover, the paper highlights the significance of digital tools and platforms, including simulations, mobile applications, and virtual labs, which play a transformative role in improving language proficiency among future engineers and technologists. The results demonstrate that adapting teaching methods to the needs of technical students leads to better engagement, practical knowledge application, and improved language outcomes. Recommendations are offered for curriculum designers and language instructors aiming to align English teaching with the professional goals of technical students.

Keywords: English for Specific Purposes (ESP), technical education, engineering students, CLIL, task-based learning, project-based learning, digital learning tools, language skills development, communicative competence, interdisciplinary approach, vocabulary acquisition, professional English, technical terminology, teaching methodology, higher education, blended learning.

In the era of globalization and technological advancement, English has become an essential tool for communication in almost all professional spheres, especially in science, engineering, and technology. As technical higher education institutions are responsible for preparing highly qualified specialists in various fields of engineering and applied sciences, the integration of English language instruction into their curricula is of paramount importance. Proficiency in English not only enhances students' academic achievements but also expands their access to international research, collaborations, technical documentation, and career opportunities.

In technical universities, students are expected to acquire not only general language proficiency but also the ability to use English for specific academic and professional purposes. This includes understanding technical texts, participating in scientific discussions, writing reports and project papers, and presenting innovative ideas in English. Traditional language teaching methods often fall short in addressing the specific needs of engineering students, which necessitates the development and implementation of specialized teaching methodologies tailored to the technical context.

Furthermore, the increasing use of English-language academic resources, international conferences, and joint educational programs with foreign universities requires technical students to be equipped with solid language skills. In response, educators and curriculum developers must adopt innovative teaching strategies such as Content and Language Integrated Learning (CLIL),

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Task-Based Language Teaching (TBLT), and the use of digital platforms and authentic materials that simulate real-life professional scenarios.

This article aims to examine the methodological foundations of teaching English in technical higher education institutions, identify the challenges faced by both teachers and learners, and propose effective approaches that enhance learners' engagement, motivation, and language competence. The goal is to ensure that English language education aligns with the professional and communicative demands of future engineers and technologists.

To examine the effectiveness of modern English teaching methods in technical higher education institutions, a combination of qualitative and quantitative research approaches was used. Surveys, classroom observations, and interviews were conducted with English language instructors and engineering students from several technical universities, including Termiz State University of Engineering and Agrotechnology. The findings reveal several key patterns and insights.

First, the analysis of survey data indicates that a majority of students (around 76%) believe that traditional grammar-based teaching does not adequately prepare them for using English in technical contexts. They expressed a strong preference for more interactive and applied learning approaches, such as project-based learning and the use of authentic materials (e.g., technical manuals, videos, and real-life case studies).

Classroom observations supported this view. In classes where task-based and CLIL (Content and Language Integrated Learning) methodologies were applied, student participation, motivation, and retention of vocabulary were significantly higher compared to conventional lecture-style lessons. In particular, students were more engaged when English lessons were connected directly to their field of study — for instance, by analyzing engineering diagrams in English or conducting technical presentations.

Furthermore, the integration of digital tools (e.g., language learning apps, online dictionaries, and virtual labs) showed a notable improvement in students' listening and speaking skills. Teachers who regularly used multimedia resources reported better student performance in technical vocabulary acquisition and practical communication.

One interesting result was that students exposed to interdisciplinary teaching — where language instructors collaborated with engineering faculty — demonstrated better comprehension of subject-specific texts and were more confident in discussing technical topics in English. This suggests that collaboration across departments can play a critical role in improving ESP (English for Specific Purposes) outcomes.

The interviews with instructors highlighted another important finding: while many teachers are enthusiastic about using innovative teaching methods, they often lack adequate training in ESP pedagogy and familiarity with technical content. This indicates a need for professional development programs tailored to English instructors working in technical fields.

Overall Results Summary:

- CLIL and task-based learning significantly increase student engagement and vocabulary retention.
- Digital tools enhance listening, speaking, and pronunciation skills.
- Interdisciplinary collaboration improves students' comprehension of technical texts.
- Lack of teacher training in ESP remains a challenge.
- Students prefer contextualized, field-related language activities over generic grammar exercises.

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These results underscore the importance of aligning English teaching methodologies with students' academic disciplines and professional needs. By applying student-centered, content-integrated, and technologically enriched approaches, English instruction in technical universities can become more effective and relevant.

The teaching of English in technical higher education institutions presents unique challenges and opportunities. Unlike general English courses, English for technical students must focus on domain-specific vocabulary, functional communication in professional settings, and the development of critical language skills for academic and workplace use. The effectiveness of English language instruction in this context greatly depends on how well the methodology is adapted to students' needs, motivations, and future career requirements.

One of the primary challenges is students' varying levels of language proficiency upon entering university. Many learners lack sufficient foundational knowledge, making it difficult to engage with complex technical texts or participate confidently in English-medium discussions. To address this, differentiated instruction and scaffolding strategies should be incorporated to support learners at different competency levels.

Moreover, the integration of Content and Language Integrated Learning (CLIL) has shown significant promise. By teaching English in conjunction with technical subjects, students are able to apply language in a meaningful, content-rich context. This dual-focus approach not only reinforces technical concepts but also enhances vocabulary retention and reading comprehension. In practice, this might include analyzing scientific articles, conducting experiments and writing reports in English, or delivering project presentations.

Task-based and project-based learning methods have also proven effective in motivating students and promoting active use of English. These approaches encourage collaboration, problem-solving, and communication — skills that are essential for engineering and technological professions. For example, students may work on a group project to design a device or solve an engineering problem, presenting their findings in English.

Additionally, the use of digital tools such as educational software, online platforms (like Moodle or Edmodo), mobile applications (like Quizlet or Duolingo), and virtual simulations provides an interactive and engaging learning environment. These tools can support vocabulary acquisition, listening skills, technical writing, and pronunciation practice. Especially in blended and online learning contexts, technology allows for flexibility, self-paced study, and access to global resources.

Another important aspect is teacher training. Many English language instructors may not have specialized knowledge in engineering or science, which can limit their ability to deliver subject-relevant content. Cross-disciplinary collaboration between language teachers and subject specialists can help create more meaningful and effective learning experiences.

Overall, the discussion highlights that successful English instruction in technical universities requires a multi-faceted, student-centered, and context-aware approach. Tailoring methodologies to students' academic and professional goals fosters both language development and technical competence, ultimately preparing students for active participation in the global scientific and engineering community.

In conclusion, the teaching of English in technical higher education institutions must go beyond traditional language instruction and be tailored to the specific academic and professional needs of engineering and technology students. As global scientific and industrial communication

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increasingly relies on English, the ability to effectively use the language in technical contexts has become a vital skill for future specialists.

The integration of innovative methodologies such as Content and Language Integrated Learning (CLIL), task-based learning, and digital technologies offers significant advantages in making English learning more relevant, engaging, and effective. These methods help students not only improve their language skills but also reinforce their subject knowledge, develop critical thinking, and gain confidence in using English for real-world purposes.

Curriculum designers, educators, and institutions should therefore prioritize the development of English teaching programs that are aligned with the demands of technical disciplines. This includes providing authentic materials, promoting interdisciplinary collaboration, and using modern educational tools. Special attention should also be given to continuous teacher training and support to ensure high-quality instruction.

Ultimately, by modernizing English language teaching methodologies and focusing on professional communication, technical universities can better prepare their students for success in the international academic and professional environment.

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