

TEACHING TECHNICAL ENGLISH FOR ENGINEERING STUDENTS: THE ROLE OF THE CLIL APPROACH IN MODERN TECHNICAL EDUCATION

Еркинбек М.

Ғылыми жетекшісі: Г.Ғ.М., аға оқытушы Алиева Б.М.
Академик Е.А. Бөкетов атындағы Қарағанды ұлттық зерттеу университеті
Қарағанды қ.

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Within the context of world industrial development, Technical English has become essential for students of engineering in today's globalized world. In this respect, English can be called the “lingua franca” of contemporary scientific discourse, permitting international cooperation, research exchange, and innovation. It opens up international scientific literature to students, facilitates communication in multinational working teams, and allows them to interpret technical documents accurately. CLIL is the educational approach that meets this demand. CLIL is a method of teaching subject content through a foreign language—the synchronous development of both linguistic and domain-specific competencies. The relevance of applying CLIL in technical education is determined by the increasing demand for multilingual specialists capable of acting with confidence in global academic and industrial contexts.

Technical English teaching in engineering schools deals with the acquisition and practical use of professional vocabulary connected with the processes of industry, automation systems, material science, energy technologies, etc. Students practice with project descriptions, laboratory reports, technical graphs, safety protocols, and research abstracts. Therefore, language instruction is focused not on vocabulary expansion, but on developing the ability to express thoughts clearly, concisely, and logically in a professional context.

CLIL plays a key role in addressing the challenges students face with highly specialized vocabulary and complex technological concepts. Instead of isolated terms to memorize, students encounter professional terminology in real-world situations, such as during laboratory experiments, when presenting technical solutions, or when explaining how systems work. It is this contextualization that reduces misunderstandings in terminology, clears conceptual ambiguities, and tightens the link between theoretical and practical understandings. Thus, CLIL reinforces critical thinking, reasoning ability, professional communication skills, and problem-solving.

In contemporary technical education, CLIL should be viewed not as something additional or elective but as a pedagogically obligatory strategy that prepares students for participation in international research and professional collaboration. This enables future engineers to analyze international scientific sources, adapt to the rapidly changing technological environment, and contribute to global innovation. In industries where English is often used as a working language, such skills become crucial for effective professional performance.

A scientific study conducted as a pilot project in an engineering university in Spain applied the CLIL method to a bachelor's/master's course in engineering. Results revealed that the statistical difference in the pre-test and post-test average scores in students' listening skills, as computed using the paired-sample t-test, was significant, while the difference in grammar scores was not. Interestingly, the study also showed that students of a lower proficiency level gained better results from the CLIL approach. The usage of CLIL in technical engineering courses in Vietnam allowed the "experimental group" to outperform the "control group" not only in target language proficiency but also in subject-specific skills. A study conducted by Macaraeg et al. (2024) showed that CLIL improves linguistic competencies, especially in listening skills, and also significantly raises students' self-confidence and cultural awareness.

Regarding the CLIL method, this approach can be viewed as a very useful instructional framework for leading to increased student motivation and making language learning relevant. By integrating authentic technical content into the language lesson, I would create learning environments in which English is not just studied but actively used as a tool for thinking and solving real-life tasks. This is where my professional goal fits: to help students in the development of linguistic and intellectual capacities needed nowadays at school and in industry.

Taking everything into account, the close integration of Technical English with the CLIL approach forms a comprehensive method in the development of both language proficiency and professional competence of engineering students. It promotes active, practice-oriented learning, involves independent research and

strengthens readiness for international communication. The future of engineering is with specialists who will be able to think technically and communicate internationally; hence, the effective implementation of CLIL will be not just beneficial but also essential for contemporary technical education. In today's competitive world, we must stand tall, stay sharp, and make our mark!

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TRANSLATION PROBLEMS OF INTERNATIONAL TERMINOLOGY IN THE FIELD OF TELECOMMUNICATIONS

Жорабек Қ.

Ғылыми жетекшісі: PhD, қауымдастырылған профессор Жуманова А.З.
Академик Е.А. Бөкетов атындағы Қарағанды ұлттық зерттеу университеті
Қарағанды қ.

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Telecommunications have become one of the most important and, at the same time, fast-growing fields, especially in the modern world when people, organizations, and systems are interconnected as never before. English has nowadays become the primary language of international communication in this sphere. Every year, new technologies such as 5G networks, artificial intelligence, cloud computing, blockchain, and the Internet of Things emerge and change the way people communicate. However, when these terms enter Kazakh, they pose some translation challenges.

The reason of frequent linguistic and cultural barriers in translating telecommunication terms into Kazakh is that certain words have no direct appropriate forms, while some lose their very meaning in translation. Consequently, professionals and students in the field go on using a variety of borrowed forms from English or Russian. This situation destroys all consistency and clarity in professional communicative exchange.

The aim of this research paper is to analyze the most significant problems that appear in translating international terms within the field of telecommunications and to suggest effective ways for their solution. One of the main reasons for these challenges to appear is a lack of uniform terminological base and lack of coordination between linguists and IT specialists. As a result of lack of coordination, inconsistency in terminology use and misunderstanding take place.

Telecommunication terminology is very closely connected with technology and innovation, and it needs very high accuracy in translation. A lot of English terms are metaphorical, and literal translation often fails to deliver their real meaning. To illustrate such issues, the term "cloud computing" is presently translated as "бұлттық есептеу" (cloud computing). Thus, this expression represents the metaphor of the "cloud," but not the real function of data storage and network access.

Similarly, the term "streaming" is translated as "ағындық қызмет" (flow service) or "онлайн трансляция" (online broadcast), depending on a translator's interpretation and the context. Words such as roaming, chat, Wi-Fi, and browser are used without any modification, which also diminishes the naturalness of the Kazakh language. This phenomenon leads to linguistic hybridization and terminological confusion. The following problem points to the existence of several versions for a single term. For example, the word "router" may appear as "маршрутизатор" (router) or "бағыттаушы" (director); "smart city" can be rendered as "ақылды қала" (smart city) or "цифрлық қала" (digital city). These divergences indicate the absence of a unified translation standard.