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Conference “Innovative Approaches of Language Teaching:
Bridging Theory and Practice”**

**«Тілдерді оқытудың инновациялық тәсілдері: теория мен
практиканы ұштастыру» атты II көктемгі халықаралық
ғылыми-практикалық конференция**

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конференция «Инновационные подходы преподавания
языков: слияние теории и практики»**

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«Тілдерді оқытудың инновациялық тәсілдері: теория мен практиканы ұштастыру» атты ІІ көктемгі халықаралық ғылыми-практикалық конференция материалдар жинағында шетел тілдерін оқыту саласындағы озық тәжірибелермен алмасуға, мәдениетаралық қарым-қатынасты нығайтуға, цифрлық дәуір жағдайында шетел тілдерін оқытудағы инновациялық технологияларды таратуға, сондай-ақ халықаралық ғылыми-академиялық ынтымақтастықты кеңейтуге бағытталған ғылыми-практикалық зерттеулердің нәтижелері енгізілген. Материалдарда білім алушылар мен жас ғалымдардың осы бағыттағы зерттеулерге белсенді қатысуын ынталандыру мәселелері қарастырылған.

В сборник материалов ІІ весенней международной научно-практической конференции «Инновационные подходы преподавания языков: слияние теории и практики» включены результаты научно-практических исследований, направленных на обмен передовым опытом в области преподавания иностранных языков, укрепление межкультурной коммуникации, распространение инновационных технологий обучения в условиях цифровой эпохи, а также расширение международного научно-академического сотрудничества. В материалах рассматриваются вопросы стимулирования активного участия обучающихся и молодых ученых в исследованиях в данной области.

The proceedings of the ІІ Spring International Scientific and Practical ONLINE Conference “Innovative Approaches of Language Teaching: Bridging Theory and Practice” include the results of scientific and practical research aimed at sharing advanced experience in foreign language teaching, strengthening intercultural communication, disseminating innovative teaching technologies in the digital age, and expanding international scientific and academic cooperation. The materials also address issues related to encouraging the active participation of students and young researchers in this field.

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II Spring International Scientific and Practical ONLINE Conference “Innovative Approaches of Language Teaching: Bridging Theory and Practice”

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The Main Themes of the Conference:

1. Teaching foreign languages for professional and interdisciplinary purposes.
2. Innovative technologies in foreign language teaching methodology.
3. Language training in the context of multilingualism and lifelong learning.
4. Language education based on digital technologies and artificial intelligence.

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FROM BLUEPRINTS TO BILINGUALISM: LANGUAGE INTEGRATION IN CIVIL ENGINEERING EDUCATION

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Abstract

The aim of this research is to evaluate the effectiveness of integrating English for Specific Purpose (ESP) into construction education, focusing on its impact on bilingual competence, professional communication, and the ability of future engineers to effectively operate in BIM-based and international digital environment. The digital transformation of the construction industry and the growing involvement of foreign companies in infrastructure projects have a big impact on what civil engineers need to know and be able to do. The article emphasizes the need to integrate specialized foreign language training (English for Specific Purposes, ESP) into higher education in the field of construction. Particular attention is paid to the importance of English in project documentation management (drawings), BIM technologies, international standards (ISO, LEED, Eurocodes), and specialized software. The study is based on theoretical analysis, content analysis of educational programs and professional platforms, as well as a comparative analysis of language teaching models. The results show that the integration of foreign languages contributes to the formation of bilingual professional competencies, increases students' readiness for international cooperation, and improves their competitiveness in the global labor market. The study concludes that foreign language instruction in construction universities should function as an integrated professional tool rather than as an auxiliary academic discipline.

Keywords: construction education, bilingualism, ESP, BIM technologies, professional communication bilingualism, blueprints, foreign languages.

Introduction

The current stage of development in the construction industry is characterized not only by the increasing complexity of engineering solutions and the widespread adoption of digital technologies, but also by an unprecedented expansion of international cooperation. In today's environment, engineering practice increasingly relies on digital design environments, automated project management systems, and building information modeling (BIM) technologies. BIM is a process for creating and managing information about an object based on a unified database, where the main

product is a complex digital model and the derived elements are detailed drawings, specifications, and architectural visualizations [1]. The use of such technologies radically simplifies the management of a construction project at all stages of its lifecycle: from initial design and construction to operation and subsequent renovation. Along with digitalization, globalization processes have finally integrated national construction sectors into a single professional space, where cross-border collaboration has become a generally accepted standard [2]. In the Republic of Kazakhstan, this trend is clearly reflected in the implementation of ambitious infrastructure projects such as the Baiterek Monument and the Khan Shatyr Shopping Mall, whose concepts were developed by the world-renowned British architectural firm Foster + Partners [3], as well as the large-scale light rail transit (LRT) project in Astana, implemented with the active participation of China Railway Asia-Europe Construction Investment, a leading Chinese construction corporation[4]. These examples show that the construction industry works in a global professional field where English is the most common way to communicate about technical issues and is the standard for all countries. Blueprints are a set of design documents that show the spatial structure of a building, the location of structural elements, and other technical details needed for construction [5]. They are still a key way to communicate. In the digital age, blueprints and design documents are more and more often made in English-language software environments [6]. They must also follow international design standards like ISO and Eurocodes. Under these conditions, a foreign language ceases to be an auxiliary discipline and is transformed into a fully-fledged tool for the professional work of a civil engineer. Consequently, the integration of English into the construction education system is becoming a targeted process of implementing professionally oriented learning, known as ESP (English for Specific Purposes). This method tailors learning to each student's needs, emphasizing the practical use of language in engineering and the use of technical vocabulary instead of everyday language. The main goal of such integration is to create professional bilingualism, i.e., a specialist can use two languages well for communication and working with complex data and digital interfaces[7]. This study is important because of global trends and the fact that English is becoming more and more important as a universal tool for processing technical content. Engineers in Kazakhstan work at the intersection of Western digital platforms and collaborate closely with partners from other countries. Even when working with companies from East Asia, English is often the main language used to talk to each other. You need to be very good at English to work with graphics, BIM platforms, and international standards [2]. This makes it harder to get ahead in your career and find a job. The aim of this study is to examine the effectiveness of career-oriented foreign language teaching in developing bilingualism and communication skills among civil engineering students and to assess the influence of language integration on the willingness of future engineers to actively participate in the globalized and digital industry.

Methods

The empirical basis of the study was a questionnaire distributed in February 2026 among architecture students and practicing engineers. Sixty-four people participated in the study, including students majoring in civil engineering, architecture, BIM management, and planning, as well as practicing engineers. The questionnaire contained 11 mixed-type questions (both closed and scaled) designed to ascertain the function of English in professional training and practical application. Specifically, the following parameters were analyzed: English proficiency level, frequency of use of English-language interfaces in professional software (Revit, AutoCAD, etc.), adequacy of localized versions of programs, the impact of insufficient English proficiency on the acquisition of BIM technologies (on a scale of 1 to 5), reference to original international standards (ISO, Eurocodes, LEED), and attitudes toward the implementation of CLIL (Content and Language Integrated Learning).

Data processing was conducted using quantitative and qualitative analysis. The responses were grouped by professional status (students/practitioners), language proficiency, and type of professional tasks. Particular attention was paid to the correlation between the frequency of BIM platform use and perceived language barrier.

The results showed that most respondents regularly encounter English-language interfaces of professional software (daily or frequently). A significant portion of the participants also noted that localized versions of the programs are only partially sufficient or insufficient for full-fledged professional work. More than half of the respondents indicated that their insufficient English proficiency, to varying degrees, hinders the development of new BIM tools and updates.

Furthermore, a trend toward increased use of Chinese construction technologies and equipment was identified, reinforcing the relevance of foreign language learning in professional training. Most participants expressed support for the introduction of CLIL or English for Professional Purposes (ESP) elements into the educational process.

Thus, the survey results confirmed the research hypothesis regarding the functional necessity of integrating the English language into the training system for specialists in the construction industry.

Results and Discussion

An analysis of empirical data obtained during a comprehensive study among construction students and practicing engineers in February 2026 allows us to reconstruct in detail the current state and prospects for implementing bilingualism in the educational process. The results clearly confirm the hypothesis that foreign languages in the modern construction industry are no longer an isolated subject of the humanities, but have become an integral technical component of engineering. The study showed that more than 85% of participants interact with the digital environment in English on a daily or weekly basis, which is explained by the dominance of Western software on the Kazakh market. Another important aspect is the perception of localized

versions of professional software such as Autodesk Revit, AutoCAD, and Navisworks by specialists. Furthermore, a critical aspect is the perception of specialists of localized versions of professional software such as Autodesk Revit, AutoCAD, and Navisworks. About 60% of study participants rated Russian-language user interfaces as "partially suitable" and noted that the translation of technical terms in the field of Building Information Modeling (BIM) often loses contextual accuracy. Practicing engineers emphasize that working with family parameters, Dynamo scripts, or complex engineering calculations in the original English language minimizes the risk of software errors and incorrect data interpretation. This creates a situation of spontaneous bilingualism, where specialists are forced to independently overcome the terminological gap between local norms and international software standards.

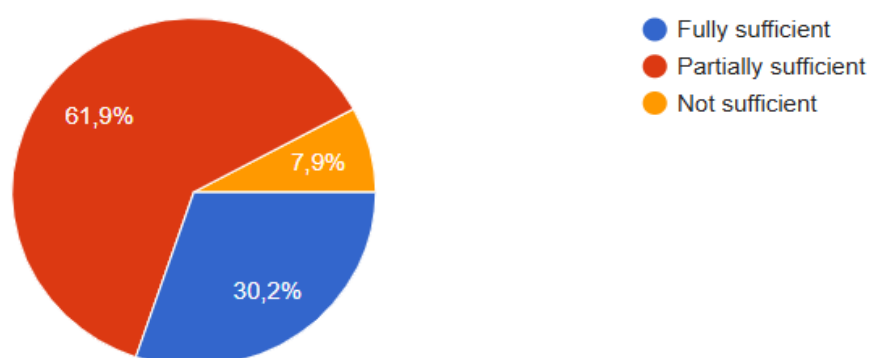


Figure 1 . Satisfaction of engineers and students with localized version of the software

The discussion of the results focused on the new geoeconomic realities of Kazakhstan's construction sector. The study revealed a sharp increase in the relevance of learning Chinese, which is directly related to the large presence of Chinese contractors and investors in the country. A key indicator of this trend is the light rail transit (LRT) project in Astana, as well as numerous industrial facilities being built by Chinese state-owned corporations. Survey participants note that knowledge of Chinese has become an important competitive advantage when working with technical documentation on equipment, drawings, and specifications coming directly from China. However, despite the expansion of East Asian technologies, English is not losing its position; on the contrary, it is gaining the status of a "universal interface." As Kazakhstani engineers work at the intersection of Western BIM standards and Chinese engineering solutions, English serves as a lingua franca for coordinating project teams. An assessment of the impact of the language barrier on the rate of professional growth on a 5-point scale yielded an average score of 4.2, demonstrating a direct correlation between linguistic competence and the effectiveness of innovation implementation. More than half of respondents acknowledged that insufficient proficiency in technical English is a "hindrance" when learning international ISO and Eurocode standards, as well as LEED building environmental certification systems.

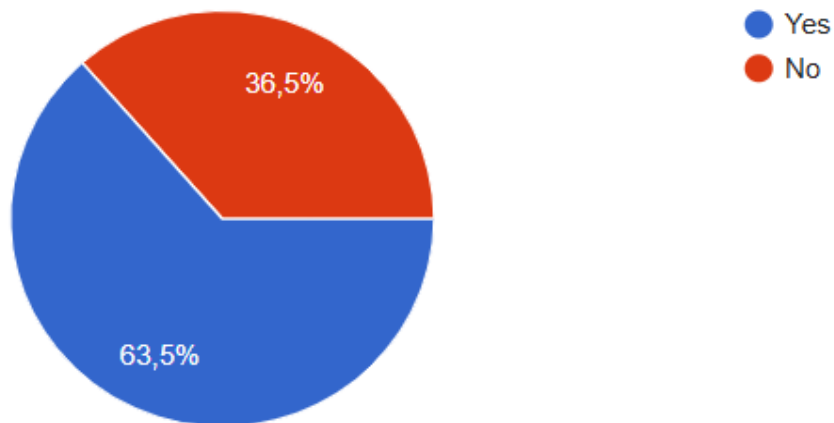


Figure 2. Frequency of professional reference to original international standards due to inaccurate translation

The integration of Chinese construction technologies requires flexibility from modern Kazakhstani specialists, which can only be ensured by a multilingual approach to education. The survey confirmed that the traditional education model no longer meets market demands: over 75% of students expressed a belief in the need to teach specialized construction disciplines in English with elements of professionally oriented Chinese. This shows how mature the professional community is, realizing that switching to a content and language integrated learning (CLIL) approach will help future engineers get over the psychological barrier of using complex foreign software and build up their international vocabulary. The introduction of bilingualism (and possibly multilingualism) into construction education is not only an educational reform, but also a strategic response to the needs of the country's largest infrastructure projects. A bilingual approach helps prepare a new type of engineer, one who is equally effective in using Western digital tools and interacting with partners on LRT-level projects. In the long term, such an educational strategy will catalyze a qualitative leap for the entire construction industry in Kazakhstan, ensuring its technological independence and successful integration into global production chains.

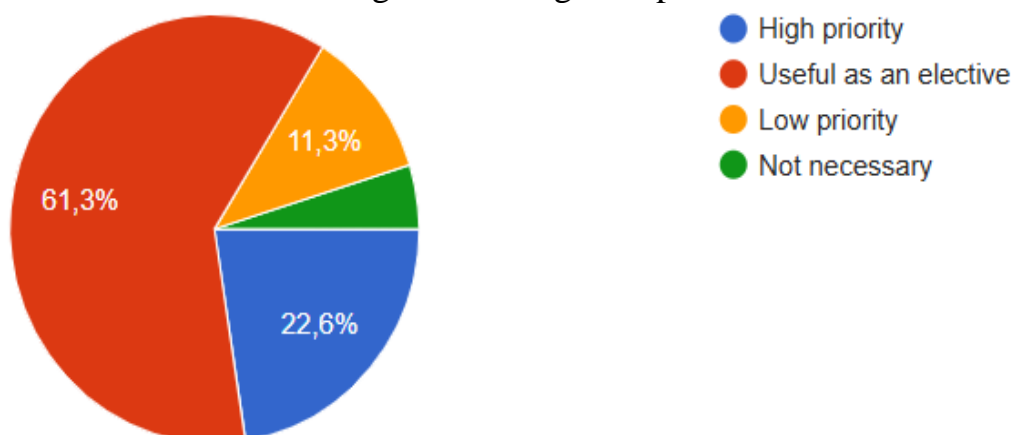


Figure 3 . Students perception of the priority level for teaching construction disciplines in English and Chinese (in %)

Conclusion

Summing up the results of the study, it can be reasonably concluded that the modern construction industry in the Republic of Kazakhstan has passed the point of no return in terms of digital and linguistic integration. With the widespread expansion of building information modeling (BIM) technologies, a foreign language has ceased to be an optional skill and has transformed into a fundamental working tool for engineers. A survey of students and practicing professionals conducted in February 2026 clearly demonstrated that the overwhelming majority of respondents encounter English-language interfaces of professional software, such as Autodesk Revit or Navisworks, on a daily basis. Furthermore, the identified dissatisfaction with the quality of localized versions of programs confirms the thesis that working with original technical terms and digital parameters in an English-language environment minimizes the risk of critical errors during design and calculations. This creates an acute need for specialists with a high level of professional bilingualism who are able to work equally effectively with technical data in both their native and foreign languages.

Linguistic training is particularly important in the context of the country's iconic infrastructure and architectural projects. The successful design of such structures as the Baiterek Monument and the Khan Shatyr Shopping and Entertainment Center, created using concepts from the British architectural firm Foster + Partners, confirms that international collaboration is a driver of innovation in the national construction sector. Similarly, the project to build a light rail transit (LRT) system in Astana, which is being implemented with the participation of the leading Chinese company China Railway Asia-Europe Construction Investment, shows that modern engineers in Kazakhstan must be prepared to work in a multicultural environment, where English is often the language of communication between project teams. In this context, proficiency in English as a medium for professional communication (ESP – English for Specific Purposes) becomes a pivotal factor influencing a professional's competitiveness. The study's findings validated a direct relationship between the degree of foreign language proficiency and the rapidity of assimilating new BIM tools, software updates, and international design standards, including ISO and Eurocodes.

Therefore, the traditional model of separating foreign languages from specialized construction disciplines in higher education institutions requires a profound transformation. The transition to a content-language integrated learning (CLIL) methodology is a strategically necessary step for the education system. The introduction of bilingual principles will allow future engineers to develop professional competencies directly in the linguistic environment in which the global innovation market operates. This will remove psychological and terminological barriers when working with blueprints, design documentation, and cloud-based collaboration services [8]. Thus, the development of a bilingual professional environment during university education will ensure the training of a new generation of engineers who not only know how to use advanced digital tools effectively, but also successfully represent the interests of Kazakhstan's construction industry on the international stage. In the

long term, this will contribute to technological improvements and qualitative growth throughout the country's construction industry and ensure its smooth integration into the global engineering community.

References

1. Journal of the Forum of Young Scientists 2019 Kochkarov N.O. "BIM technologies in construction" Grigorieva, M. I. Use of BIM technologies in construction / M. I. Grigorieva // Architecture. Construction. Design. 2017. - No. 3. - P. 100-123 BIM ТЕХНОЛОГИИ В СТРОИТЕЛЬСТВЕ
2. Pushkareva, A. Evgeniya. "Developing a Professional, Business, and Foreign Language Combination in Future Civil Engineers Using Digital Technologies" / Federal State Autonomous Educational Institution of Higher Education "National Research Lobachevsky State University of Nizhny Novgorod" (2023) / Dissertation. pp. 18-24, 49-51
3. Nazarbayev, N. A. V serdtse Evrazii [In the Heart of Eurasia] / N. A. Nazarbayev. — Almaty : Atamura, 2005. — Pp. 156–161. — 192 p.
4. Toktar, B. First LRT train sets departed from China to Astana / B. Toktar. — Text : electronic // Forbes Kazakhstan. — 2025. — May 24. — URL: https://forbes.kz/articles/pervyie_sostavyi_lrt-poezdov_otpravilis_iz_kitaya_v_astanu (date of access: 28.03.2026). [5] V.A. Lodnya, E.V. Brel Construction Drawings Industrial Buildings/ Study guide. 2012. 7-9 p. lodnya_brel_stroit_chertezhi-конвертирован.pdf
5. Banshchikov D.S. Anglicisms in Russian urban terminology as a reflection of cross-cultural communication // Actual problems of linguistics and literary studies: collection of materials of the X (XXII) International scientific and practical conference of young scientists, April 13-15, 2023. — Tomsk, 2023. — Iss. 24. — Pp. 249–254.
6. Journal of English for Specific Purposes: What is it and where is it taken us? Ken Hyland University of East Anglia, UK. p 203 https://esptodayjournal.org/pdf/june_2022/1_Ken_Hyland.pdf
7. Oleg I. Basherov, Elena V. Sachkova, Irina K. Karlovich, Olga V. Baryshnikova. Integration of the English language into the professional training of students of non-linguistic specialties: an interdisciplinary approach // Education Management Review Volume 14(2024). Issue 2-1. P 206-212

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