

year. As the inevitable catastrophe approaches, we need to remember again the horror of disasters and unite.

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INTERDISCIPLINARY LEARNING AND ACADEMIC MOBILITY IN TEACHING ENGLISH TO MINING AND METALLURGICAL STUDENTS OF TECHNICAL HIGHER EDUCATION INSTITUTIONS

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Globalization has transformed the mining and metallurgical industries into highly international fields where English serves as the lingua franca for technical documentation, safety standards, and research. For technical higher education institutions, teaching English is not only about language acquisition but also about preparing students for academic mobility and professional integration into global contexts.

Research on Content and Language Integrated Learning (CLIL) highlights the effectiveness of combining subject-specific knowledge with language instruction [2]. Studies emphasize that interdisciplinary approaches foster deeper engagement, as students see the relevance of English in their professional fields [3]. Academic

mobility programs such as Erasmus+ and Horizon Europe demonstrate the importance of English proficiency for participation in international exchanges, internships, and collaborative projects. Previous scholarship also notes challenges in motivation among technical students and the need for authentic exposure to English in professional contexts [1].

The integration of interdisciplinary learning and academic mobility into English teaching addresses several challenges. Motivation among technical students improves when language tasks are directly linked to industry needs. Collaborative projects across faculties encourage interdisciplinary cooperation and critical thinking. Digital tools, including online mining databases and virtual labs, expand access to authentic English materials. Assessment methods that prioritize communicative competence over grammar accuracy better reflect the demands of global professional communication.

Furthermore, fostering discussion-based learning environments enables students to actively engage with complex technical topics in English, promoting deeper cognitive processing and language retention. Group discussions, debates, and problem-solving activities related to mining and metallurgy not only enhance language skills but also develop critical thinking and teamwork abilities essential for professional success. Incorporating case studies from international mining projects encourages students to analyze real-world scenarios, bridging theoretical knowledge with practical application.

Academic mobility experiences contribute significantly to students' intercultural competence, exposing them to diverse communication styles and professional practices. These experiences often lead to increased confidence in using English in multidisciplinary teams and international settings. However, challenges such as varying language proficiency levels and adaptation to different academic cultures require tailored support from educators, including pre-departure language preparation and ongoing mentoring during mobility periods.

In addition, integrating reflective practices, such as journals or portfolios documenting mobility experiences and interdisciplinary learning, helps students consolidate their language development and professional growth. This reflective component encourages lifelong learning and adaptability, which are crucial in the rapidly evolving mining and metallurgical sectors.

Overall, a holistic approach combining interdisciplinary content, mobility opportunities, digital resources, and reflective practices creates a dynamic and supportive learning environment. This approach not only improves English proficiency but also equips mining and metallurgical students with the skills necessary for effective communication and collaboration in the global industry.

Teaching English to mining and metallurgical students through interdisciplinary learning and academic mobility is essential for preparing graduates for global careers. By embedding subject-specific content into language instruction and promoting participation in mobility programs, technical universities can enhance both student outcomes and institutional internationalization. This approach ensures that students are not only competent engineers but also effective communicators capable of contributing to the global exchange of knowledge.

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