

International English Competence for Engineering Students

To further their professional success, engineers need not only technical but also communication competencies [1]. University-level foreign language courses should therefore enhance the development of applied technical language skills, particularly in English [2]. A transnational survey of students of university level technical English (N=2423) was undertaken to improve the understanding of the expectations of university students of English language courses with regard to their chosen professional application fields

The online survey of students of technical English was developed and carried out at four universities in Germany, Poland and Lithuania. The questions relate both to students' biographies (e.g., years of English language teaching, previous vocational training and length of work experience), and to learning and motivation goals (e.g., content and language skills expected from a successful technical English course or the intended degree of self-study to improve English language skills). The inclusion of engineering students from three countries should enable identifying common international trends.

Because the respondents come from different technical disciplines, the study was conducted at a conceptual level allowing generalization to various technical English contexts. This large-scale study of undergraduate students of technical English provides important insights into student goals and expectations. Overall, the students' responses are remarkably similar, independent of students' educational and cultural backgrounds. This indicates the results are applicable to developing curricula for technical English courses for engineering students in a European or possibly even global cultural context.

Unlike general English courses, engineering students place a strong emphasis on specific applications of the language. The prioritization of technical vocabulary, real technical issues, and communication skills, especially oral skills, reflects this pragmatism. This student input complements research from employers [3] who report oral communication skills are important but frequently not adequate among engineering and technical graduates.

In order to meet students' objectives and expectations, a technical English course ideally should contain a high degree of specificity for the respective field of application, allowing the selective acquisition of relevant terminology and the inclusion of relevant authentic materials [3].

The results of this study can be directly applied to the technical English classroom and related curriculum development to better educate university engineering students for the likely international work environment awaiting them as well as minimize potential stress experienced by language instructors without an engineering background.

References:

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