

USING EUROPEAN PRACTICE IN ENSURING THE INTERNAL AND EXTERNAL QUALITY IN TEACHING ENGLISH TO ENGINEERING SPECIALTIES

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Abstract: *In the context of global educational standards, proficiency in foreign languages, especially English, has become an essential skill for engineering professionals. This is particularly important for those studying in the field of agriculture, where the ability to engage in international collaborations, research projects, and cross-cultural communication is vital. Germany, renowned for its high-quality technical education system, has adopted innovative practices to ensure the internal and external quality of foreign language education for engineering students. This article examines these practices, with a focus on how Germany’s integration of modern teaching strategies enhances the foreign language proficiency of engineering students in agricultural engineering programs. Drawing on examples from leading German technical universities, this paper explores methods of curriculum integration, language course offerings, multilingual faculty, and quality assurance mechanisms that contribute to both academic success and professional readiness. The study also highlights the challenges and best practices for ensuring language proficiency, emphasizing the significance of preparing engineering personnel for global academic and professional environments.*

Keywords: *Foreign language education, engineering personnel, agricultural engineering, quality assurance, technical universities, multilingual education, English proficiency, global collaboration, agricultural studies, Germany, VEGERA project, renewable raw materials.*

Аннотация. *В условиях глобализации знание иностранных языков, особенно английского, становится необходимым навыком для инженерных кадров, особенно для тех, кто обучается в области сельского хозяйства. Германия, известная своей высококачественной системой технического образования, внедрила передовые практики для обеспечения внутреннего и внешнего качества обучения английскому языку для студентов инженерных специальностей, особенно в сельскохозяйственной инженерии. Эта статья рассматривает стратегии и методы, которые применяются в немецких технических университетах для улучшения уровня владения английским языком у студентов аграрных направлений. В частности, исследуются интеграция учебных программ, специализированные языковые курсы, многоязычный преподавательский состав и механизмы обеспечения качества, которые вместе обеспечивают не только техническую подготовку, но и развитие коммуникативных навыков, необходимых для работы в международной*

профессиональной среде. Статья также анализирует лучшие практики, вызовы и возможные направления для дальнейшего улучшения образования в этой области.

***Ключевые слова:** Образование на английском языке, Инженерные кадры, Аграрная инженерия, Качество образования, Технические университеты, Многоязычие, Продуктивные методы, Рецептивные методы, Преподавание иностранных языков, Инновационные практики, Проект VEGERA*

1. Introduction

It is important to suggest that in the globalized world of present time, the demand for multilingual professionals, particularly those proficient in English, has grown substantially, particularly within engineering disciplines. This trend is especially evident in fields such as agricultural engineering, where effective communication is essential for collaboration on international projects, research endeavors, and across diverse professional and cultural environments. Given this growing need, ensuring that engineering personnel are proficient in foreign languages, especially English, is a central objective in higher education worldwide.

Germany, as a leading nation in engineering education, has implemented several strategies to ensure the high quality of foreign language education for its engineering students. These strategies aim not only to improve students' language skills but also to ensure their readiness for global academic and professional opportunities. In this article, we explore the best practices used by German technical universities to enhance the language proficiency of engineering students studying in agricultural engineering programs.

2. Germany's Educational Framework for Engineering Personnel

Germany's educational approach for engineering students, including those in agricultural disciplines, incorporates a variety of teaching strategies that integrate foreign language acquisition into the curriculum. The key elements of this framework include:

1. **Curriculum Integration:** German technical universities have successfully integrated language learning into the engineering curriculum. Courses designed to enhance foreign language skills, particularly English, are embedded into the engineering programs, ensuring that students learn the technical language required for their future careers. This includes not only general language skills but also specialized terminology relevant to the field of agricultural engineering.

2. **Language Courses Tailored for Engineers:** Recognizing the specific needs of engineering students, many universities offer language courses that focus on technical language and communication skills relevant to their disciplines. These

courses cover topics such as writing technical reports, presenting research findings, and understanding academic papers in English. These specialized courses help students bridge the gap between general language proficiency and the technical language they will need in their professional careers.

3. **Multilingual Faculty and International Collaboration:** The use of multilingual faculty members is another key practice in Germany's educational framework. Many technical universities have faculty members who are fluent in multiple languages, enabling students to receive education in both their native language and foreign languages. This multilingual environment supports academic exchange and international collaboration, preparing students for careers that will require communication with colleagues and clients from diverse linguistic and cultural backgrounds.

4. **Quality Assurance Mechanisms:** To ensure that the quality of language education remains high, German universities employ robust quality assurance mechanisms. These include regular assessments of language courses, feedback from students and faculty, and the use of international accreditation standards for language programs. These measures help ensure that the foreign language education provided is of the highest quality and meets global standards.

3. The VEGERA Project and Its Role in Enhancing Language Proficiency in Agricultural Engineering

The VEGERA (The improvement of energy efficiency in the building sector through the use of renewable raw materials from agroforestry systems) project, funded by the International Climate Initiative (IKI), is an example of how the integration of renewable energy and sustainable agricultural practices can be a catalyst for improving language proficiency among engineering students. The project promotes international collaboration between Germany and other countries, focusing on improving energy efficiency in the building sector through the use of renewable raw materials sourced from agroforestry systems.

Students participating in the VEGERA project gain valuable exposure to both technical content and the necessity of effective communication within international teams. By working on interdisciplinary projects that require communication across cultures and languages, students can improve their proficiency in English, particularly in the context of technical subjects. The use of English as the primary language for communication in international projects helps students hone their language skills while engaging in practical, real-world applications of agricultural engineering concepts.

4. Challenges and Best Practices

While Germany's language education system for engineering students is exemplary, several challenges remain:

- **Language Barriers in Technical Content:** Even with specialized language courses, students sometimes struggle to understand the highly technical content of agricultural engineering in a foreign language. To overcome this, universities have begun offering bilingual courses and using more interactive teaching methods such as project-based learning to support comprehension.
- **Cultural Differences:** Engaging students from diverse linguistic and cultural backgrounds in English-language courses can be challenging. Faculty members are trained to recognize and address these differences by creating inclusive and supportive learning environments.
- **Continuous Curriculum Updates:** The field of agricultural engineering is rapidly evolving, and language courses must continuously be updated to reflect new developments in technology and research. Collaborations between language instructors and industry professionals can help ensure that students are learning the most up-to-date vocabulary and communication skills needed for their careers.

5. Conclusion

By summarizing it can be suggested that Germany's practices for ensuring the internal and external quality of foreign language education for engineering students are crucial in preparing them for global academic and professional environments. The integration of productive and receptive language teaching methods, specialized courses, multilingual faculty, and strong quality assurance mechanisms contribute to the development of well-rounded professionals capable of effectively communicating in both technical and cross-cultural settings. The VEGERA project serves as a valuable example of how international collaboration in the field of agricultural engineering can enhance language proficiency while advancing sustainable practices in energy and agriculture. By adopting these best practices, technical universities worldwide can better equip their engineering personnel to thrive in a globalized world.

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