

CHALLENGES OF TECHNICAL TRANSLATION IN ENGLISH LESSONS FOR STUDENTS OF TECHNICAL SPECIALTIES

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Abstract

Technical translation is a vital component of English language education for students specializing in technical fields. This paper explores the unique challenges associated with technical translation, such as complex terminology, cultural differences, and the necessity for precision and clarity. It examines how these challenges impact students' learning processes and offers strategies for educators to improve the teaching of technical translation. The study emphasizes the importance of integrating translation skills into technical curricula to better prepare students for global communication and professional demands.

Keywords: technical translation, English language teaching, technical education, challenges, terminology, precision.

Introduction

As globalization drives collaboration across technical fields, the demand for effective technical translation skills among non-native English-speaking professionals has grown. In Uzbekistan, where industries such as engineering, IT, and manufacturing are expanding, English lessons for technical students must address not only general language skills but also the ability to translate specialized texts accurately.

Technical translation requires more than language proficiency; it demands an understanding of subject-specific terminology, context, and audience expectations. For students in technical fields, this dual challenge can make mastering technical translation particularly difficult. This paper explores the major challenges faced by technical students and offers practical solutions for overcoming them in English lessons.

Challenges in Technical Translation

1. Complex and Specialized Terminology

Technical texts are characterized by a high density of specialized terms that are often difficult to understand, even for native speakers. For example, engineering students might encounter terms like "shear stress" or "finite element analysis," which have no direct equivalents in their native language.

Impact on Students:

Difficulty in understanding the exact meaning of terms.

Confusion caused by similar-sounding or overlapping terms.



Errors in translation leading to miscommunication or technical inaccuracies.

Solutions:

Providing glossaries or term banks specific to each technical discipline.

Teaching students how to use technical dictionaries and online resources effectively.

Encouraging the use of context to infer meanings of unknown terms.

2. Lack of Contextual Knowledge

Understanding a technical text often requires background knowledge of the subject. For example, translating a manual for a CNC machine involves understanding its operation and purpose.

Impact on Students:

Struggling to grasp the meaning of texts without prior knowledge of the topic.

Making incorrect translations due to a lack of technical understanding.

Solutions:

Integrating subject-specific content into English lessons.

Collaborating with technical faculty to provide students with interdisciplinary knowledge.

Encouraging students to research technical concepts alongside language learning.

3. Precision and Clarity

Unlike literary or general translations, technical translation leaves little room for interpretation. Every word must be precise, as inaccuracies can lead to serious consequences, such as equipment failure or safety hazards.

Impact on Students:

Anxiety about making mistakes.

Difficulty maintaining clarity while translating complex sentences.

Solutions:

Teaching students how to simplify and restructure complex sentences for clarity.

Practicing translation with a focus on accuracy rather than speed.

Providing constructive feedback on translations to build confidence.

4. Cultural and Linguistic Differences

Technical texts often contain culturally specific elements, such as measurement systems, abbreviations, or technical standards, that may not align with those in the target language. For instance, translating "psi" (pounds per square inch) into metric units can confuse students unfamiliar with both systems.



Impact on Students:

Misinterpreting cultural or regional nuances in technical documents.
Struggling to adapt content to meet the expectations of the target audience.

Solutions:

Teaching students to recognize and adapt cultural elements in translations.
Providing examples of translated texts that successfully navigate cultural differences.
Encouraging the use of conversion tools for measurements and units.

5. Time Constraints

Technical translation often requires significant time and effort, which can be overwhelming for students juggling other academic responsibilities.

Impact on Students:

Producing incomplete or rushed translations.
Developing a negative attitude toward translation tasks.

Solutions:

Introducing time management techniques for handling complex translations.
Assigning smaller, focused translation tasks to build confidence gradually.
Using collaborative translation projects to share the workload.

Effective Teaching Strategies

To address these challenges, educators can adopt the following strategies:

1. Task-Based Learning

Create tasks that simulate real-world translation scenarios, such as translating technical manuals or research articles. This approach makes learning more engaging and relevant to students' future careers.

2. Use of Technology

Incorporate translation software, such as SDL Trados or MemoQ, into lessons. Teach students how to use these tools effectively while being mindful of their limitations.

3. Peer Learning

Encourage students to work in groups, allowing them to learn from each other's strengths. Peer feedback can also help improve the quality of translations.

4. Regular Practice

Provide students with regular opportunities to practice technical translation. Start with simple texts and gradually increase the complexity to build their skills and confidence.



5. Interdisciplinary Collaboration

Work with faculty from technical departments to design materials that align with students' fields of study. This collaboration ensures that translations are both linguistically and technically accurate.

Case Study: Technical Translation in Uzbek Universities

A recent study conducted at Tashkent State Technical University revealed that students who received targeted training in technical translation showed significant improvement in both their language and technical skills. Key factors contributing to their success included:

Access to industry-specific materials.

Support from both language and technical instructors.

Use of modern translation tools and resources.

The study also highlighted the importance of fostering a supportive learning environment where students feel comfortable asking questions and making mistakes.

Conclusion

Teaching technical translation to students of technical specialties is a challenging but essential aspect of English education. By addressing the unique difficulties posed by specialized terminology, contextual knowledge, and precision requirements, educators can help students develop the skills needed for effective communication in global technical fields.

Through innovative teaching strategies, interdisciplinary collaboration, and the use of technology, students can overcome these challenges and gain confidence in their translation abilities. Ultimately, the integration of technical translation into English lessons prepares students for the demands of their future professions and contributes to Uzbekistan's broader goals of industrial and technological advancement.

References

1. Byrne, J. (2012). *Scientific and Technical Translation Explained: A Nuts and Bolts Guide for Beginners*. Routledge.
2. Newmark, P. (1988). *A Textbook of Translation*. Prentice Hall.
3. Gouadec, D. (2007). *Translation as a Profession*. John Benjamins Publishing.
4. Munday, J. (2022). *Introducing Translation Studies: Theories and Applications (5th ed.)*. Routledge.
5. Kiraly, D. C. (2000). *A Social Constructivist Approach to Translator Education*. St. Jerome Publishing.
6. Hatim, B., & Mason, I. (1997). *The Translator as Communicator*. Routledge.
7. O'Hagan, M., & Ashworth, D. (2002). *Translation-Mediated Communication in a Digital World*. Multilingual Matters.
8. Hutchins, W. J. (2005). *Machine Translation: A Brief History*. In *Concise History of the Language Sciences* (pp. 431–445). Elsevier.
9. Nord, C. (1997). *Translating as a Purposeful Activity: Functionalist Approaches Explained*. St. Jerome Publishing.
10. Pym, A. (2014). *Exploring Translation Theories (2nd ed.)*. Routledge.

