

ISMGE 2020**II International Scientific and Practical Conference "Individual and Society in the
Modern Geopolitical Environment"****SPECIFICITY OF TECHNICAL TRANSLATION FOR EFFECTIVE
CROSS-CULTURAL COMMUNICATION**

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Abstract

This article focuses on different characteristics of technical translation. The ability to understand information in the foreign language is essential for effective cross-cultural communication. Professional discourse requires the development of different skills. Technical translation is a complex type of foreign language activity that implies the knowledge of terminology, the awareness of specificity of translation and the development of writing skills. The technical, psychological, communicative, analytical and corrective aspects are defined and analysed in this article. The authors have paid special attention to the lexical and grammatical features of the English technical literature. The basic requirements for the translation are also considered. The basic requirements for the translation of technical manuals include uniformity of presentation, sequence of use of terms, accuracy of the transmission of meaning. However, in addition to the key rules, it is necessary to observe others that are no less important for a truly high-quality translation of the manual that meets the requirements of consumers.

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1. Introduction

Effective professional cross-cultural communication requires different abilities and skills therefore the students should learn foreign languages, the rules of business correspondence, social norms, etc. They should pay special attention to professional terminology and specificity of technical translation. Terminology is a set of words and expressions reflecting the achievements of science and contributing to the exchange of information (Neverova et al., 2018; Malushko et al., 2019). All students especially candidates for master's degree should develop their writing skills. The ability to find, understand, interpret and translate information from one language into another is very important for future professionals. One of the main goals of English teaching at the university is to improve foreign language competence and professional skills in order to communicate with foreign partners (Sveshnikova, 2016). Translation is a cyclic process. A translator should analyze the text properties and make decisions at each level (Volkova, 2014).

2. Problem Statement

Consecutive interpreting comprises different aspects:

1. Technical aspect. The students are informed about the sequence of stages and tasks of the translation.
2. Psychological aspect implies the awareness of the specificity of the translation as a complex type of foreign language activity. Basic psychological knowledge is essential for the students to comprehend the main cognitive processes such as memory, attention, perception and others as well as their functioning at the different stages of interpreting.
3. Communicative aspect. In order to improve their communicative skills the students should participate in different scientific meetings, seminars and conferences, read books on specialized subjects and publish their own articles.
4. Analytical aspect. Despite the lack of time students have to follow the certain strategy that implies the analysis of the text, its complexity, the main terms and the methods of translation.
5. Corrective aspect implies the assessment of the quality of the translation, analysis of mistake, their types and causes. The first assessment is rather intuitive and it depends on many factors such as professional, gender and national differences of recipients. The most objective way to assess the quality of interpreting is the analysis of mistakes.

3. Research Questions

Professional discourse requires the development of different skills. Technical translation is a complex type of foreign language activity that implies the knowledge of terminology, the awareness of specificity of translation and the development of writing skills. The technical, psychological, communicative, analytical and corrective aspects are defined and analysed in this article. The authors have paid special attention to the lexical and grammatical features of the English technical literature.

4. Purpose of the Study

This article focuses on different characteristics of technical translation. The ability to understand information in a foreign language is essential for effective cross-cultural communication. Professional discourse requires the development of different skills.

5. Research Methods

Emphasized consistency, evidence (validity), accuracy (uniqueness), abstractedness, generalization are the stylistic features of the scientific and technical style.

The style of modern English scientific and technical literature is based on the norms of the English written language with certain specific characteristics, namely:

5.1. Vocabulary

In scientific and technical texts, a large number of special terms and words of non-Anglo-Saxon origin are used, which are selected for the most accurate transmission of thought. In addition to terms, the scientific style uses general scientific and common words.

The widespread use of the special general technical vocabulary greatly contributes to the mutual understanding among specialists. These words and combinations do not have the property of the term to identify concepts and objects in a certain field, but are used almost exclusively in this field of communication, selected by a narrow circle of specialists, familiar to them.

A significant place is given to abbreviations as a special type of nominative signs.

5.2. Grammar

As scientific and technical texts are constructed according to the rules of the grammar of the national language, we can only talk about some features of the grammar of the national language in scientific and technical texts.

Among the grammatical features of the scientific and technical style can be distinguished

- the wide use of simple sentences that define or describe something by pointing to its properties in simple sentences with a compound predicate (mainly to be) and a nominal part (predicate):
An electric motor is a machine (for converting electrical energy into mechanical energy);
- adjective and prepositional combinations are often used as a predicate: The control is by a remote unit;
- distinctive feature is the use of transitive verbs in intransitive form with a passive meaning:
The steel forges well (meaning 'The steel is forged well');
- use of intransitive verbs as transitive: The aircraft can fly large-size equipments;
- the widespread use of elliptical structures with the omission of components, which are easily exploited and must be restored in the translation: low-pressure producers - these are "manufacturers of some materials using the low-pressure method";
- replacement of definitive subordinate clauses by adjectives in the postposition and definitions in the form of the infinitive: the materials available; the temperatures to be expected;

- the absence of the article in front of the names of specific parts and objects in inventories, technical specifications, catalogs, etc., as well as sometimes in technical descriptions, operating instructions, etc;
- widespread use of the plural of uncountable names: fats, oils, steels, sands, equipments, etc;
- introduction of attribute groups to the defined term using the words type, of the ... type, design, grade, for example: the water-protected type electric machines, standard type elements, etc.

The use of “text-organizing” and “text-linking” words to introduce a logical context and characterize the degree of objectivity of information:

- confirming (therefore, consequently, hence) and denying the above considerations (but, on the other hand, nevertheless)
- expanding (also, in addition to, for other reasons) and limiting the above considerations (for the purpose, to this end, to do this);
- indicating the time of implementation (first, from the very beginning, initially, as a start) and the place where the study was described (presently in this article, elsewhere in another work, in this chapter, on page ...);
- pointing to the sequence of arguments (first, second, above, below, later);
- indicating simplification, reduction or refinement of the arguments (for simplicity, for the sake of convenience, for details, in short, or briefly);
- introducing illustration of the argument (for example, thus, e.g., such as)
- implementing subordinate (that, who, which, whose, when, where) and composing connection in simple common and complex sentences (and, or, rather than, but, etc.);
- introducing a logical context (it follows, it results; it is used to be thought; it has been reported, it can be seen from this, it is also shown; it must also be borne in mind).

The presence in the texts of multi-element pronouns unusual for the Russian language. Structurally, they are combinations of adverbs here, there, where with the prepositions in, of, about, after, at, by, for, before, etc., for example: herieof), hereupon, thereupon, whereof, hereinafter and others. The meaning of these units is easily determined by context.

Changing the meaning of a verb depending on syntactic compatibility, for example:

to suggest something - something suggests that;

to assume - something is assumed to be - it is assumed that.

5.3. The method of presentation of the material.

The main task of scientific and technical literature is to bring certain information to readers very clearly and accurately. This is achieved by a logically grounded statement of factual material, without the use of emotionally colored words, expressions and grammatical constructions. This method of presentation can be called formal logical.

Scientific and technical literature, in turn, has several gradations (Malushko et al., 2019). Scientific and technical texts differ from each other not only in the field of science or technology, but also in the degree of their specialization. The above characteristics fully relate to scientific monographs and articles,

abstracts and textbooks. However, the text of technical manuals, catalogs, descriptions of supplies, technical reports, specifications and instructions may sometimes contain sentences that lack the predicate (when listing technical data, etc.) or the subject (if it is implied by context). In technical reference books there are whole segments consisting of enumerations. Delivery descriptions, specifications, technical reports and catalogs are usually compiled according to a solid template and loaded with special terminology.

6. Findings

6.1. Types of educational activity

Technical translation teaching contributes to the improvement of the professional speech of the students (Chuksina, 2017). Communication skills including the ability to translate the text are important components of the professional competence of any specialist (Marinova, 2013). The course of technical translation consists of a theoretical part, seminars and individual work of students. The teacher should plan, coordinate and control students' work and use different methods to improve their motivation (Tarasova & Baris, 2011). At the beginning of the course it is necessary to provide students with useful information about the specificity of technical translation and recommend them different references and internet resources related to the subjects under the question.

The students should be informed about non-metric system of measurement used in the UK and the USA and study the basic mathematical terminology.

At the first stage of technical translation teaching the main type of activity is the translation from English into Russian that involves the analysis of the text and the comprehension of the contextual meaning of polysemantic terms. The teacher should help students understand the grammatical and lexical features of the context to find the necessary equivalent (Pisareva, 2011). The complex understanding of the text implies detailed analysis of the lexical peculiarities, technical terms, synonyms, abbreviations and different grammatical patterns (Rebrina & Malushko, 2017).

In order to develop and improve communicative skills necessary for the technical translation the students should be provided with the texts of the following topics:

- the means of transport;
- industry;
- electric power / electricity and measurement instrumentation / measuring equipment;
- chemistry;
- oil refinery / oil refining;
- nuclear power industry;
- technical descriptions, instructions, patents, etc.

Evaluation of educational translation from the point of view of a communicative-functional approach can contribute to the student's real self-esteem and prepare him for substantive activity not only in the field of the translation process, but also in the field of its effectiveness. Despite the fact that the educational translation activity is different from the real one, the re-creation of the conditions of professional translation and the evaluation of the translation by the teacher, having previously discussed

his role (customer, recipient, author) with students, at least in a playful form immerses students in the reality of the communicative situation using translation. Particularly indicative in our teaching experience is an attempt to bring the situation of educational translation closer to the situation of a professional in the classes of interpretation, conducted with bachelors, specialists and undergraduates. The teacher does not always evaluate the translation, more often the student does it (with the subsequent commentary on his assessment by the teacher) (Zharinova, 2015). Thus, technical translation teaching contributes to the development of critical thinking (Ivleva, 2018).

6.2. Characteristics of technical documentation translation

Translation services are required during translation of technical documentation, interpretation (accompaniment) of a foreign setup engineer during the commissioning of equipment and training of personnel (Serebryakova & Milostivaya, 2017).

Each stage is characterized by its specific difficulties, which should be taken into account for the proper organization of the translation process. We would deal with the translation of technical documentation.

The cornerstone of technical translation is the precise translation of highly specialized terms that requires a complete semantic understanding of the text.

The technical documentation for complex equipment is significant in amount and the period for transfer is usually limited. This can lead to a spread in the terminology and style of the translated text if a group of specialists is employed.

The basic requirements for the translation of technical manuals include uniformity of presentation, sequence of use of terms, accuracy of the transmission of meaning. However, in addition to the key rules, it is necessary to observe others that are no less important for a truly high-quality translation of the manual that meets the requirements of consumers.

Before proceeding directly to the project, a general idea of the subject of the translation should be obtained. Nowadays it is quite easy to do using the Internet.

In addition to reference documentation, a glossary of terms is often attached to the assignment, which is also an integral tool of a professional translator. Nevertheless, if sometimes it is quite difficult not only to find a particular term, but also to understand what it means. In such cases, it is recommended, to abandon the intuitive translation and try to find the correct one in dictionaries, reference books, and the Internet. Moreover, during the search you will certainly come across useful additional information (Davdyan, 2017).

As mentioned above, the translator needs to use glossaries to provide the monosemy of terminology (Malushko et al., 2016). Particular attention should be paid to the translation of the interface found in the figures of the manual and directly in the text itself (Minin et al., 2019).

Quite often, translators stuff sentences with unnecessary words, grammar structures, which ultimately make it difficult to read the instruction manual, which should initially be written in a simple and understandable language for the user.

7. Conclusion

Technical translation is a very difficult and complex type of foreign language activity. The knowledge of its specificity is important for future specialists. Technical translation teaching is an important aspect of educational activity. The translator should develop different professional skills. His or her foreign language competence determines the quality of translation. Besides the knowledge of methods of translation and professional terminology, the ability to understand the technical literature is required. Different aspects of translation and its unique features should be taken into consideration.

References

- Chuksina, O. V. (2017). Improving culture of professional speech while teaching technical translation in aviation institute. *World of Science*, 5(6), 88PDMN617.
- Davdyan, A. S. (2017). Innovative methods in teaching translation of scientific and technical texts. *Philological Sciences. Issues of Theory and Practice*, 5(71), part 3, 183-186.
- Ivleva, A. Yu. (2018). The problem of translation quality assessment: approaches to solution. *Science Journal of VolSU. Linguistics*, 17(1), 98-106.
- Malushko, E., Bolsunovskaya, L., & Martyushev, N. (2019). Development of foreign language listening competence of a master student in authentic professional podcast environment of higher educational institution. *Asian EFL Journal*, 23(3), 315-328.
- Malushko, E., Novozhilova, A., Shovgenina, Ye., Korolkova, S., & Shovgenin, A., (2016). Developing professional competence of a translator: information retrieval and information technology constituents. *International Multidisciplinary Scientific Conferences on Social Sciences and Arts*, 669-676.
- Marinova, N. I. (2013). Teaching of interpretation in technical universities. *The Journal of Almaty Technological University*, 3, 100-103.
- Minin, M. G., Politsinskaya, E. V., & Lizunkov, V. G. (2019). Readiness of Technical University Students to Entrepreneurship Activity. *Higher Education in Russia*, 28(10), 83-95.
- Neverova, N. V., Rybakova, L. V., & Fedotova, L. A. (2018). Peculiarities of teaching the basics of scientific, technical and business style in the process of translation of technical texts. *Pedagogy and Psychology of Education*, 2, 32-38.
- Pisareva, L. P. (2011). Peculiarities of English technical texts' terminology translation. *Bulletin of Kamchatka State Technical University*, 15, 101-108.
- Rebrina, L. N., & Malushko, E. Yu. (2017). Representation of the mnemonic process of "memorization" in German: constant features. *Advances in Social Science Education and Humanities Research (ASSEHR)*, 97, 233-238.
- Serebryakova, S. V., & Milostivaya, A. I. (2017). Semantic emergence as a translation problem. *Vestnik Volgogradskogo Gosudarstvennogo Universiteta-seriya 2-yazykoznanie*, 16(3), 48-57.
- Sveshnikova, S. A. (2016). Teaching magistracy students summary translation of the popular science and technical texts. *Philological Sciences. Issues of Theory and Practice*, 5(59), part 2, 204-207.
- Tarasova, E. S., & Baris, T. A. (2011). The role of motivational constituent in technical translation teaching of MSc's. *Tomsk State Pedagogical University Bulletin*, 6(108), 81-84.
- Volkova, T. A. (2014). Translation model, translation analysis, translation strategy: an integrated methodology. *Language and Culture*, 2, 151-155.
- Zharinova, Ye. G. (2015). *On Teaching Scientific and Technical Translation at Non-Linguistic Technical University. Language and Text: Structure, Discourse, Translation*. Gradient.