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MODERN VECTORS OF SCIENCE AND EDUCATION DEVELOPMENT IN CHINA AND UKRAINE

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State institution "South Ukrainian National Pedagogical University named after K. D. Ushynsky"

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MODERN VECTORS OF SCIENCE AND EDUCATION DEVELOPMENT IN CHINA AND UKRAINE **ISSN 2414-4746**

This international journal, as a periodical, includes scientific articles of Ukrainian and Chinese scholars on the problems of Sinology, Cross-cultural Communication, Pedagogy and Psychology: contemporary review. Odesa, Ukraine.

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The seventh issue of the materials represented by the Ukrainian and Chinese scholars are dedicated to the relevent issues of General and Contrastive Linguistics within the Chinese, English, Ukrainian, Turkish, Korean and Russian languages; linguodidactic problems of teaching native and foreign languages within polycultural educational space; peculiarities of cross-cultural communication in geopolitical space alongside education-related aspects regarding profession-oriented training of future specialists under conditions of multicultural environment; COVID-19 pandemic chalanges.

The given articles may be of use to researchers, graduates, postgraduates and practising teachers who are interested in various aspects of Sinology, Cross-cultural Communication, Linguistics, Pedagogy and Psychology.

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PICULIARITIES OF LINGUISTIC AND PRAGMATIC ASPECTS OF SCIENTIFIC AND TECHNICAL TRANSLATION

The article is devoted to the investigation of the peculiarities of the texts belonging to scientific-and-technical style. The grammatical and lexical features of scientific and technical texts are analysed. The paper contains some examples of difficulties concerning the translation of scientific and technical materials. The article outlines the main requirements which should be met by the translator while dealing with the texts of the designated style. The issues of scientific and technical translation cover its linguistic and pragmatic aspects. The topicality of the work is determined by more and more increasing importance of scientific and technical translation in the context of contemporary science and industry development. The object of the research is the translation of scientific and technical articles. The novelty of the research lies in the fact that not all the issues related to scientific and technical translation have been sufficiently investigated. The aim of the work is to identify the peculiarities of scientific and technical translation based on the Energy&Power journal paper translation analysis. The author concludes that the quality of scientific and technical translation depends not only on the knowledge of source and target languages but the knowledge of special terms, stylistic features of target texts and deep understanding of the subject of translation.

Keywords: *translation, strategies, science, technology.*

The expansion of international relations, trade and economic relations with foreign countries, the strengthening economic integration of countries in Europe and the whole world, the development of science and technology, constant exchange of scientific and technical information reinforce the

importance of foreign languages as an effective factor of socio-economic, scientific and technical and culture-general competence as a means of oral and written communication between representatives of different cultures. The modern era of scientific and technological transformation encompasses all aspects of modern societies in changing economic conditions at the highest level of development of cutting edge technologies.

There is a special need for specialists – translators who have practical skills in translation of scientific and technical texts. All kinds of electronic devices have become an indispensable attribute of a person's daily life. Technical innovations emerging in the world make our life more comfortable and convenient, and production is more efficient and economical. There is a growing need for high-quality technical translation of all accompanying technique documentation. To translate scientific and technical literature you should constantly improve your vocabulary to understand terms and know how to implement them.

The article is aimed at reviewing, analysing the difficulties translators encounter while working with scientific and technical documentation, defining the basic requirements for professional translation, such as equivalence, adequacy, informatitivity, conciseness, consistency and readability [1, p. 48].

Research methods include both theoretical and practical analyses from the field of pedagogy to facilitate the creation of the system of knowledge and skills to use modern computer technologies for achieving the higher level in the field of translating scientific and technical texts. Doing our research, we use empirical and theoretical methods: the linguistic and translation analysis of different authentic and target texts.

The purpose of this work leads to the following tasks: to classify the main types of translation activities, to research the features of scientific and technical style texts, to analyse the grammatical and lexical features of scientific and technical texts. Along with the general features due to a single linguistic mechanism of translation activity, certain types of translation can also have important specific features: to modify the translation process, to attach special importance to achieve the equivalence at the highest level, or conversely, to allow deviations from the maximum possible degree of semantic generality, including some elements such as adaptive transcoding, etc. These features necessitate a scientific classification of the types of

translation activities (types of translation) and the detailed study of the specification of each type.

In translation theory, there are two main classifications of types of translation: by the nature of the translated texts and by the nature of the translator's actions in the translation process.

In accordance with the genre-styhstic classification of translation, two types of translation are distinguished: literary translation and informative (special) translation. The classification, depending on the nature of the translator's speech actions, is called the psycholinguistic classification of translation. This classification takes into consideration the way the original text is perceived and the way the translated text is created, and divides the translation activity into interpretation and translation:

1. Written translation, or written translation of a written text.

2. Oral translation, or oral translation of an oral text. Both languages are used orally.

3. Written and oral translation of a written text. The source language is used in written form; the target language is used oral form.

4. Oral and written translation of an oral text. The source language is used in oral form; the target language is used in written form.

In general, each of these types of translation corresponds to two main types: written translation and interpretation.

Technical translation is the translation of technical texts, in particular documents of different specialisations, reference literature, various dictionaries, certificates of conformity of products, manuals, scientific and technical articles, business contracts and other commercial technical proposals. Complexity of technical translation is that it should be as accurate as possible, because the slightest translation errors can change the semantic load of the text. Translation of scientific and technical texts is a field of translation activity in which the professional execution of work is possible only for highly qualified professionals who are well versed in the subject area and its specific terminology and who know how to express their thoughts in the target language, keeping the essence and original style) [2, p. 31]. Many researchers have dealt with the problems of teaching scientific and technical translation (D. V. Biryukov, A. L. Pumpyansky, G. M. Strelkovsky, A. V. Schweitzer and etc.). “Translation of scientific and technical literature is a special discipline, emerged at the junction of

linguistics, on the one hand, and science and technology, on the other one. Therefore, the translation of scientific and technical literature should be looked at linguistic, scientific and technical aspects all together. Currently, there is a need to distinguish scientific and technical translation not only as a special type of translation activity and a special theory that studies this type of activity, but also to assign the status of an independent applied discipline to scientific and technical translation. From the point of view of linguistics, the characteristic features of scientific and technical literature extend to its style, grammar and vocabulary" [2, p. 45].

The main task of scientific and technical translation is to convey the information communicated to the reader in an extremely clear and accurate way. This is achieved by a logically grounded presentation of factual material, without explicitly expressed emotionality.

The style of scientific and technical literature can be defined as formal and logical. Scientific and technical texts reveal a number of grammatical features. The most typical lexical feature is the richness of the text with terms and terminological phrases, as well as the presence of lexical structures and abbreviations. In such literature, these are the texts which are aimed not so much to native speakers of a certain language, but to representatives of a certain professional group with certain extra linguistic knowledge [3, p. 148].

Thus, after examining the stylistic features of scientific and technical texts, it is important to note that their main characteristic is the desire for the clarity of presentation, the rejection of indirect, descriptions of objects, the widespread use of clichés and special vocabulary. However, all such texts show the predominant use of linguistic means that contribute to meeting requirements in the field of communication. In the field of lexicology, this is primarily the use of scientific and technical terminology of special vocabulary. Terms are words and phrases denoting specific objects and concepts that are used by specialists in a particular field of science or technology. The terms should provide a clear and precise indication of real objects and phenomena and establish unambiguous understanding of the transmitted information by specialists. Therefore, special requirements are imposed on this type of words. First of all, the term must be precise, have a strictly defined meaning, which can be disclosed by means of a logical definition that establishes its place in the concept indicated by the term in the

system of concepts of a given field in science or technology. If some quantity is called scalar, then the meaning of this term must exactly correspond to the definition of the concept (a quantity that has magnitude but no direction), which connects it with other concepts contained in the definition (magnitude, direction) and opposes the concept of vector (a quantity which is described in terms of both magnitude and direction). The term must be part of a strict logical system. The meanings of terms and their definitions must obey the rules of logical classification, clearly distinguishing between objects and concepts, avoiding ambiguity or inconsistency [7, p. 37]. And, finally, the term should be a purely objective name, devoid of any side definitions and meanings that distract the attention of a specialist and introduce an element of subjectivity.

Of course, scientific and technical materials use not only terminological and special vocabulary but also they contain a large number of common words used in any functional style. When translating such lexical units, a translator of scientific and technical literature encounters the same difficulties and applies the same techniques to overcome them as his colleagues working in other fields. There are also lexical elements in scientific and technical materials that are more characteristic of the colloquial style, while translating them a translator has to face the need to choose expressive and stylistic options. Scientific and technical presentation is sometimes by no means neutral and objective [7, p. 40]. Linguistic studies have repeatedly noted the use of seemingly foreign elements of the type in scientific articles: a large part of industrial America is rushing to get on the nuclear bandwagon. Branched chain paraffin will be the fair-haired boys in our future gasolines. Of course, there is no "scientific and technical grammar". In scientific and technical speech, there are the same syntactic structures and morphological forms which are used in other functional styles too. However, a number of grammatical forms are noted in this style more often than in the others, but some grammatical forms, in their turn are relatively rare in it, others are used only with a characteristic lexical vocabulary [4, p. 60].

A comparative analysis of translations shows that translators regularly carry out stylistic adaptation of the translated text, omitting the emotional and stylistic elements of the original, which seems inappropriate to them in a "serious" scientific presentation [5, p. 70].

In conclusion, it can be said that the scientific and technical style is characterised by a logical sequence of presentation, which uses a definite and precise system of connections between parts of the sentence to facilitate the authors' desire for accuracy, conciseness, unambiguity and to retain the richness of the content. The specificity of translation, which distinguishes it from all other types of linguistic mediation, lies in the fact that a translator has to fully replace the original text with the translated one the way to be completely identical to the original text. At the same time, it is obvious that the absolute identity of the translation with the original is unattainable and that by no means hinders the implementation of interlanguage communication. So, we found out that the basic requirements for the language of technical literature are accurate and clear presentation, description and explanation of the facts. While translating technical texts, it is necessary to take into account that the translator must most accurately convey the idea of the author. The translated text must be conveyed in the way that is inherent in the technical style in Ukrainian. Prospects of the further research are seen in the study of scientific and technical translation in an educational aspect grounded on the quick development of strategies in interlanguage communication in the fields of comparative linguistics and general theory of translation (theory of regular correspondences, methods of representing knowledge, optimising and improving linguistic algorithms, in particular) [1, p. 48].

REFERENCES

1. Tarasova, E. S. (2015). Technical Translation Teaching to the Engineering Students (On the Example of Patent Descriptions), *Mediterranean Journal of Social Sciences, 6(3 S1)* P. 38−45. Available at: https://www.richtmann.org/journal/index.php/mjss/article/view/6415

2. Lashkevich, Yu..I. & Grozdova, M. D. (2016). *On the translation of scientific and technical texts.* Moscow: Practica. P. 31−35.

3. Gorbunova, V. S. & Sbotova, S. V. (2015). XXI century: the results of past and present problems. P. 148−194.

4. Kartashova, A. V. (2011). *Bulletin of Siberian Science*. P. 40−45.

5. Matukhin, D. L. & Gorkaltseva, E.N. (2015). Teaching Foreign Language for Specific Purposes in Terms of Professional Competency Development.

Mediterranean Journal of Social Sciences. P. 68–75. Available at: http://www.richtmann.org/journal/index.php/mjss/article/view/5493.
6. Kazakova, T. A. (2001). *Practical translation basics*. Saintpetersburg: Publishing house of the Union. P. 95–100.
7. Komissarov, V. N. (1980). *Linguistics of translation*. Moscow. P. 35–45.
8. Komissarov, V. N. (1973). *A word about translation*. Moscow, P. 85–90. Int. relationship.
9. Latyshev, L. K. (1986). *Translation course: Equivalence of translation and ways of its achievements*. Moscow. P. 75–85.
10. Lvovskaya, Z. D. (1985). Theoretical problems of translation. Moscow P. 55–60.

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科技语体翻译的语言及语用方面特征

本文致力于研究科技语体文本的特征，并对科技文本的语法及词汇特征进行分析。本文提供了翻译科学和技术资料时常见困难的示例。本文阐述了翻译特定样式文本时，翻译人员必须满足的基本要求。本文主题涉及科学技术文本翻译，及其语言和应用方面的问题。

这项研究工作的紧迫性体现于随着现代科学和行业发展，科学技术翻译的重要性日益提高。

研究对象——科学技术文本的翻译。

该研究的创新性在于，并非所有科学技术翻译问题都已得到充分研究。研究目的是在对《能源与电力》杂志文章的翻译进行分析的基础上，确定科学技术文本翻译的特征，作者得出的结论是，科学技术文本翻译的质量要求译者：了解源语言和目标语言，了解特殊术语、目标语言文本的风格特征，对翻译主题有深刻的理解。

关键词：*翻译，战略，科学，科技。*