

Отримано: 13 жовтня 2023 р.

Прорецензовано: 29 жовтня 2023 р.

Прийнято до друку: 2 листопада 2023 р.

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DOI: 10.25264/2519-2558-2023-19(87)-94-98

Novoseletska S. V., Ivchenko-Chekhodka Yu. V., Shapran N. V. Grammatical problems of scientific and technical translation: «Academic phrase bank» in writing and editing in English. *Наукові записки Національного університету «Острозька академія»: серія «Філологія»*. Острог : Вид-во НаУОА, 2023. Вип. 19(87). С. 94–98.

УДК: 81'253

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## GRAMMATICAL PROBLEMS OF SCIENTIFIC AND TECHNICAL TRANSLATION: «ACADEMIC PHRASE BANK» IN WRITING AND EDITING IN ENGLISH

The article examines the specifics of the academic style using the examples in writing, as well as the possibility of using banks of phrases during writing or editing of scientific and technical texts written in English. Special attention is devoted to the stylistic features of writing a scientific article, its sections and the use of clichés.

This work has a double **purpose**: firstly, it will help to recognize the grammatical manifestations of the English language better, analyze the structure of the English sentence and to determine the grammatical difficulties of translation adequately. Besides it explains how to translate sentences with such difficulties.

The relevance of the topic is due to the direction of modern linguistic research to the study of terminological systems of individual knowledge, since terms play a key role in the development of the language, and eponyms fix the stages of its formation and focus on the scientist who made a certain discovery. Work tasks provide for the selection of eponyms from specialized explanatory dictionaries, a description of their lexical and semantic features and generalizations of translation norms.

**The novelty of the study** lies in the fact that the term system of rehabilitation is not widely represented in scientific works, and the material for the work is collected from the most modern lexicographic works. The results of the analysis indicate that eponyms are widely used in the terminological system of rehabilitation, reflect the development of its methods, the discovery and the description of certain diseases or syndromes, the development of instruments and apparatus, the compilation of various scales, classifications, coefficients, indices and tests.

The questions of synonymy of eponyms, the search for a translation option that would optimally convey the essence of the concept remain open. Compilation of specialized translated English-Ukrainian and Ukrainian-English dictionaries that would maximize fully reflect the needs of users, remains a top priority.

**Keywords**: academic phrase bank, scientific article, stylistic features of academic writing, critical thinking, term, eponym, translation, evidentially, caution in expressions, passive state, impersonality, nominalization.

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## ГРАМАТИЧНІ ПРОБЛЕМИ НАУКОВО-ТЕХНІЧНОГО ПЕРЕКЛАДУ: «АКАДЕМІЧНИЙ ФРАЗЕОЛОГІЧНИЙ БАНК» ПРИ НАПИСАННІ ТА РЕДАГУВАННІ ТЕКСТІВ АНГЛІЙСЬКОЮ МОВОЮ

У статті розглядається специфіка академічного стилю, а також можливість використання банків фраз під час написання або редагування науково-технічних текстів, написаних англійською мовою. Особливу увагу приділено стилістичним особливостям написання наукової статті, її розділам та використанню кліше.

Ця робота має подвійну мету: по-перше, вона допоможе краще розпізнавати граматичні прояви англійської мови, аналізувати структуру англійського речення та адекватно визначати граматичні труднощі перекладу. Крім того, пояснюється, як перекладати речення з такими труднощами.

**Актуальність теми** зумовлена спрямуванням сучасних лінгвістичних досліджень на вивчення терміносистем окремих галузей знання, оскільки терміни відіграють ключову роль у розвитку мови науки, а епоніми фіксують етапи її формування та

спрямованість на вченого, який зробив певне відкриття. Робочі завдання передбачають виділення епонімів зі спеціалізованих тлумачних словників, опис їх лексико-семантичних особливостей та узагальнення перекладацьких норм.

**Новизна** дослідження полягає в тому, що терміносистема реабілітації мало представлена в наукових працях, а матеріал для роботи зібрано з найсучасніших лексикографічних праць. Результати аналізу свідчать про те, що епоніми широко вживаються в термінологічній системі реабілітації, відображають розвиток її методів, виявлення та опис певних захворювань чи синдромів, розробку інструментів і апаратів, складання різноманітних шкал, класифікацій, коефіцієнти, індекси та тести.

Першочерговим завданням залишається укладання спеціалізованих перекладних англо-українських та українсько-англійських словників, які б максимально повно відображали потреби користувачів.

**Ключові слова:** банк академічних фраз, наукова стаття, стилістичні особливості академічного письма, критичне мислення, доказовість, обережність у висловлюваннях, пасивний стан, термін, епонім, переклад, безособовість, номіналізація.

**Formulation of the problem.** Removing barriers to access to a wide variety of information during scientific activity are those objective factors contributing to the improvement of the quality of higher education. Writing and publication of articles are of great value in professional publications abroad. It becomes a necessary component of the scientific search for master's students, post-graduate students and teaching staff of any institution of higher education and at the same time constitutes quite a problem for them.

It is common fact that the publication of scientific articles in ranked peer-reviewed journals is a challenging task even for native speakers, and only a third of manuscripts receive a favorable decision from the need for their refinement. Therefore, we consider it appropriate to detect the general requirements for writing papers in the scientific and technical direction, delineation of stylistic features and search for their universalization. As a result of the research, such an innovation was singled out as "academic phrasebank" (academic bank of phrases), which is discussed in our article (Davis M., 2023).

So, the relevance of this work is related to what is in scientific articles of institutions of higher education, prepared for journals indexed in Scopus, Web of Science or Core Collection. It is necessary to adhere to the stylistic features of the genre, which helps to use the ready banks of phrases (Derkach L., 2019). It is also important for works master's and postgraduate students.

**The object** of research is banks of phrases as relatively new linguistics phenomenon, in particular in academic English. The main tasks of the research is:

- to characterize phraseological units that have application in banks of phrases;
- to identify the selection criteria and localization of the appropriate phraseological units when writing and editing a scientific article;
- to provide a general description of the style of scientific and technical prose.

In accordance with the purpose of the work, **the following tasks** were formulated: to analyze the stylistic features of scientific and technical texts; to consider lexical and grammatical features of scientific and technical texts; and also generalize ways of translating texts of scientific and technical style.

**Analysis of recent research and publications.** Questions of stylistics and phraseology in the style of scientific and technical prose need a plane study of many domestic and foreign scientists (Kyryak T, 2021). Simultaneously compiling banks of phrases can be considered a relatively new phenomenon. This is the first time the problem was raised by the outstanding British scientist John Swales (John M Swales) in the 1980s. Having carefully analyzed a certain number of scientific articles and dissertations, the scientist first associated the clichés of academic writing with functions of scientific communication.

Later, the computer technology made it possible to accumulate large sums of money volume of the bank of phraseological units in various fields of knowledge, which opened wide prospects for their practical application (Derkach L., 2019).

The research by Oleksandrova H. and Dyukanova N. was dedicated to identify the criteria for selecting phrases suitable for repeated use / entry into the bank of phrases, based on the analysis of detailed questionnaires.

Significantly, the conclusion was that the phrase suitable for inclusion in banks of phrases:

- 1) Does not have a unique or at least original design;
- 2) No reflects the view of a specific author;
- 3) Contains no more than four nominations related to a specific subject area (Kyryak T, 2021).

**Presentation of the main research material.** First of all, let's consider the ideas researchers regard in studying and outlining the style of scientific and technical prose from the point of view of modern approaches and criteria for compiling phrase banks.

The bank of academic phrases is defined as a general resource for scientists all specialties. It aims to provide phraseological units in academic writing according to the main sections of a scientific article or dissertations such as Abstract, Introduction, Literature review, Materials and methods, Results and Discussion of research results (Davis M., 2023). It is especially appropriate the use of phrase banks when writing a literature review (Koptilov V., 2023).

Analysis of phrase banks reflects detailed and clear structuring. For example, in the Introduction section, you can highlight subsections such as General References: to previous research (General References: to previous research) and Time-frame reference (Reference to research within a certain time frame), and in Results section – Highlighting of similar findings results) and Highlighting of contradict findings results) (Korunets V., 2018).

The language of scientific and technical literature differs from spoken language or the language of fiction by certain lexical, grammatical and stylistic features. If lexical differences are noticeable even for a non-specialist and this is primarily a significant presence of a special vocabulary of terms grammatically, they are less expressive, but no less diverse.

It is necessary to emphasize that this is not about inventory differences, that is in the composition of syntactic constructions or morphological forms that are almost absent between the texts of different written styles and about functioning of grammatical elements.

Some linguists think that the development of pragmatic studies contributed departure from traditional methods of analysis. Obviously, a systematic study language units and speech is impossible without reference to specific ones the most used options that are implemented during text communication. To their opinion, first of all, communicative, pragmatic and axiological functions depend on the nature of the impact. Due to this, the text, in particular the scientific text articles, are understood as a complete verbal work, which is interpreted as semiotic object due to the foregrounding of the communicative functions (Derkach L., 2019).

A prerequisite for adequate translation is the ability to translate correctly, to analyze the grammatical structure of foreign language sentences, to define correctly grammatical difficulties of translation and to construct sentences in the translation accordingly to the norms of the language and translation genre. It is clear that the translator must be well familiar with the grammatical features of the source and target languages' basic theories of translation in general and scientific and technical translation in particular.

Precisely the differences in the structure of languages' constitute the first large group of grammatical difficulties in translation. Yes, there are no articles, gerunds, tense forms in the Ukrainian language verbs of the groups, complex subject and additional infinitive constructions', adverbs' of the gender category nouns and adjectives, etc. Certain differences exist in the sentence construction in contrast to the Ukrainian language where the subject group can often be contained after predicate groups in the English language. The order of the main members of the sentence is significant, more fixed which may require sentence restructuring during translation.

Yes, the form of the present tense of the predicate verb in the Ukrainian language corresponds to its own content corresponding English forms and partly the genitive form of the Ukrainian noun can correspond in its grammatical meaning to the English preposition.

Another group of grammatical translation difficulties is connected with features of the expression of sentence members in two languages are primarily the subject and the predicate. For example, in the English language there are so-called formal subjects and «formal application» that is impossible in the structure of the Ukrainian sentence. Only a small proportion of English and Ukrainian expressions have identical syntactic structure and order of components and only in this case English expressions can be translated into the corresponding Ukrainian ones statements without using grammatical transformations. For example in grammatically literal translation of a sentence *A new element will be discovered sooner or later* is a violation of the norms in functioning of comparative forms in the Ukrainian language. In similar cases, the form is used positive and without the comparative degree (Davis M., 2023).

In order to avoid an inadequate literal translation of grammatical literalism it is necessary to apply translation grammatical transformations as a result of which the literal translation adapts to norms of the translation language and becomes adequate. Grammatical transformations are caused by various factors. In particular, the causes of such transformations are:

1. The difference in the ways of transmitting information in English and Ukrainian by sentence that is conveyed in one language by lexical means in another language and can be expressed by grammatical means. For example, the antecedence of one past action in English is indicated by the form of predicate verbs and in the Ukrainian language – words or word combinations (before, before that etc.);

2. The absence in one of the languages of a certain grammatical phenomena forms or constructions. For example, in the Ukrainian language, the article is a gerundial form and in English – generic forms of nouns and adjectives forms of the numeral cases;

3. It is optional to express grammatical information in one of the languages (for example, the information about what is not grammatically expressed in the Ukrainian language the action in the present tense takes place at the moment of speaking).

The grammatical translation transformation is a change of grammatical characteristics of a word, phrase or sentence in translation. The vast majority of translation experts (Barkhudarov L., Karaban B., Kazakova T., Miram D., Parshin A.) single out the following main types of grammar transformations (Kyryak T., 2021):

- syntactic simile;
- literal translation;
- membership;
- internal and external integration;
- transposition;
- replacement of forms of the number of nouns' form and tense of the verb;
- modality verbs;
- parts of speech;
- addition;
- withdrawal;
- antonymic translation;
- explication or descriptive translation;
- complex transformation;
- simple transformations present Indefinite, Present Continuous in subordinate clauses of time and conditions and Present Perfect are translated into the future tense form of the predicate verb: unless a more explicit definition of the difference is given, such dilemmas will remain. If this difference will not get a clearer definition, such problems will remain unresolved. *If we point out this theory, the scientist can fairly be laid that we are cheating* (Якщо виділити дану теорію, то студенти нас закономірно звинуватять у тому, що ми підтасовуємо факти) (Кортілов V., 2023).

In some cases (in particular, in metaspeech sentences) the Present Indefinite form can have the meaning of the future tense and be translated by the appropriate form: *The next lesson I briefly consider major mistakes* (На наступному уроці я коротко розгляну основні помилки) (Derkach L., 2019).

When translating English forms of the past tense in subordinate clauses one should bear in mind the effect of such consistency rules, which are absent in Ukrainian grammar forms with the past tense form of the predicate verb in the main clause. Therefore, the translation of the Past Indefinite or Past Continuous in such subordinate clauses, is formed by the present tense, the Past Perfect form is the past tense form, and the Future-in-the-Past form is the future tense form: *First of all, the doctor made sure that the students knew all the rules of the experiment* (Лікар насамперед пересвідчився, що студенти знають всі правила експерименту) (Davis M., 2023).

The model «let + noun-appendix + infinitive» is translated by conjugation «(don't) let» with the form of the future tense, the words «suppose that ...» and the form of present or future tense: *Let this be known as...* (Нехай це буде відомо як...) (Swales J., 2021).

All this is a part of the general competence of the translator, which is of course much wider than the one defined by us. For a scientific and technical translator of literature, knowledge of the subject in translation is especially important – he must navigate in

the subject area to which the intended translation text belongs. During translation, you need to understand correctly the meaning of the sentences' semantic relations between sentences and the meaning of metatextual elements that participate in the organization of the text. Naturally, the largest complex of grammatical translation problems is connected with the understanding the structure and morphological composition of sentences as linguistic elements.

So, the style of scientific writing is based on the synthesis of stylistic features informative message, description, analytics, reasoning and business communication (Куяк Т, 2021). In general, among researchers, the idea of scientific text as a monotype, differentiated only in terms of separation main genres: scientific article, theses, review article, monograph, etc. (Коптилов В., 2023).

The model «Let me + infinitive» is translated as «let me + unmarked verb form» or «want/should + indefinite verb form», and sometimes – by the first person plural future tense: *Let me introduce myself* (Дозвольте представитися) (Корунетс В., 2018).

Compilers of phrase banks pay attention to the distinguishing features in the academic style. First of all, it is evidence: the authors inform the reader about well-known facts and previously performed work, emphasizing the relevance of this research topic. For example: *The latest developments in the field of computer science have interested the scientific community in ...* (Найновіші розробки в галузі комп'ютерних технологій зацікавили наукову громаду в ...) (Коптилов В., 2023); *The last years there has been a revival of interest in...* (Останніми роками спостерігається поживлення зацікавленості у...) (Куяк Т, 2021); *For the last decade, this field has been studied quite thoroughly.* (Протягом останнього десятиріччя дану галузь досліджували досить достеменно.) (Derkach L., 2019).

Authors of scientific articles expect to have a critical attitude towards used sources of literature. Links to external sources of information considered mandatory, but it is the author who has the right to agree or disagree with the views of the authors of all previously published works regarding certain aspects. In fact, it is about finding causes, as a result that one's assertions or conclusions cannot be taken as unquestionable truth, which leads to the discovery of problems with the arguments/methodology the author and searching for criticism of his works by other scientists. The critical attitude to ideas should be expressed carefully and diplomatically and use established phrases: *However, some examples show that there are significant similarities.* (Проте деякі приклади показують, що наявна значна схожість) (Корунетс В., 2018); *These statements contradict scientific research. She analyzed...* (Наведені висловлювання суперечать науковому дослідженню. Вона проаналізувала...); *Research Morse would have been much more convincing if he had used...* (Дослідження Морса було б набагато переконливішим, якби він використав...) (Derkach L., 2019).

The form of References: to literature, as well as the form of writing individual ones of sections can vary seriously (Swales J., 2021). The style «author as a subject» is popular in humanitarian fields and less common in natural sciences/exact sciences. Here are some examples: *The scientist emphasizes on necessary ...* (Науковець наголошує на необхідності...); *The scientist discusses future prospects and strategy...* (Науковець обговорює подальші перспективи та стратегію...); *The scientist emphasizes that there is a pronounced dependence between...* (Науковець наголошує на тому, що наявна виражена залежність між...) (Куяк Т, 2021).

In general, careful wording, that is, lack of categoricalness even in conclusions, is a characteristic feature of the scientific and technical style. Here is an illustrative example:

*Correct:* Some scientists suggest that smoking is increasing the risk of nervousness in middle-aged people.

*Incorrect:* Smoking causes nervousness in middle-aged people.

A characteristic feature of the scientific style is impersonality. Personal pronouns are used quite rarely, especially «I» (it's almost always replaced by the word «we»). The audience is primarily interested in what was done, how and for what purpose. Therefore, it is typical to use the passive voice for mitigation of excessive categorical statements.

This contradicts the opinion of many philologists about the principle of ensuring the clarity and comprehensibility of the message that is mainly using the active state of the verb (Коптилов В., 2023). Academic style about it can be considered as an exception, for example:

*Correct:* It can be said that the President made some catastrophic decisions early in the War.

*Incorrect:* You could say that the President made some catastrophic decisions early in the War (Korunets V., 2018).

Studies of the psychology of readers indicate that they have two identifiers of increased attention: at the beginning of the sentence and closer to its end (Derkach L., 2019). Usually, the topic is revealed at the beginning of the sentence/paragraph, and the new, complex one to perceive information, leave at the end. Therefore, the key word (phrase) should be placed at the beginning of a sentence/paragraph.

The differentiation of the scientific and technical style is consisted in the selection of the appropriate one vocabulary, not to mention the terms and technical jargon associated with the need for strict adherence to scientific accuracy and detail during description of the subject/ phenomenon/ process. Comparison of everyday and scientific terminology makes it possible to highlight a number of words/phrases that are used inadmissible within the specified genre:

Everyday language	Academic style
thing	object
trouble	difficulty
way (of doing)	method
worry	concern
get rid of	eradicate
bring together	synthesize
big	significant
a lot of	considerable
not enough	insufficient
not much research	little research
not many studies	few studies

Among the stylistic improprieties when writing a scientific and technical article, such a phenomenon as nominalization is considered to be special type verbiage, when authors turn a self-contained verb into a noun by adding another verb such as "make",

"take", "give", etc. Usually, you can easily restore the original word without losing the meaning sentence. Such unnecessary words should be crossed out and their use should not be allowed in the future.

It will not be superfluous to mention that the academic style implies the presence of connection words, lack of grammatical abbreviations like it's, they've, and elements of figurative language.

The following considerations allow us draw the following **conclusions**.

– the style of the scientific and technical text is characterized by rigor, coherence, carefulness of expressions, analyticity, correct selection vocabulary and the use of mostly passive voice;

– compilers of phrase banks adhere to certain vocabulary selection criteria, which excludes accusations of users who use them, plagiarism;

– banks of ready-made phrases make it possible to save the time and effort of scientists employees regarding the writing of scientific articles, these and other materials, and also reduce the time spent by graduate students and researchers on academic studies of the English language (Derkach L., 2019).

We see **the prospects for further research** in the detailing of the structure writing a scientific article and typical stylistic mistakes of novice authors. Scientific and technical texts are characterized by a special style that distinguishes them from other types of texts. It creates additional difficulties and problems for a technical translator whose work has its own specificity.

A successful technical translator usually works in one particular field of science or techniques. A prerequisite for a full-fledged translation of any special text especially scientific and technical is a complete understanding of it by a translator. Mechanical memorization of terms without penetrating into their essence, without knowledge of the phenomena themselves, processes and mechanisms, can lead to translation errors.

#### References:

1. Actual problems of scientific and technical translation: a collective monograph. Dnipropetrovsk: NSU, 2020. Vol. 2. 256 p.
2. Davis M. and Morley J. Use your own words: Exploring the boundaries of plagiarism. In EAP within the higher education garden: Cross publications between disciplines, departments and research / John Wrigglesworth (Ed.) Proceedings of the BALEAP Conference, Portsmouth roll. Reading Garrett. 2023. P. 85–94 [in English].
3. Derkach L. Actual problems of scientific and technical translation. National Mining University; Institute of Electric Power Engineering. Department of Translation and Pedagogical Psychology; Center for Psychological and Innovative Research. Donetsk: National Mining University, 2019. 257 p.
4. Kyiak T. Theory and practice of translation. Vinnytsia: Nova kniga, 2021. 240 p.
5. Koptilov V. Theory and practice of translation. K.: Universe, 2023. 280 p.
6. Korunets V. Introduction to translation studies. Vinnytsia: Nova kniga, 2018. 512 p.
7. Leshchuk T. Y. Scientific and technical terminology. Status and prospects: a set of studies based on the example of German. languages. Lviv: Spolom, 2007. 814 p. CHAPTER VI. Terminology. 3, 2019 303.
8. Olexandrova G. M., Diukanova N. M. Fundamentals of editing of English scientific and technical prose. Intellectual Archive. Toronto: Shiny World Corporation (Canada). 2020. November–December. Vol. 5. No. 6. P. 91–98 [in English].
9. Pleskach V. Traces in Ukrainian technical terminology. *Visn. Lviv. national university Problems of Ukrainian terminology*. Lviv: Lviv. a polytechnic, 2022. No. 453. C. 183–184.
10. Swales J. Aspects of article introductions. (Aston ESP Research Report No. 1). Birmingham: Language Studies Unit; University of Aston, 2021. 104 p. [in English].