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**PHRASEOGRAPHIC DESCRIPTION OF PHRASEOLOGICAL UNITS IN
SCIENTIFIC DISCOURSE****Sheraliyeva Shirin Abdisalomovna,***Doctor of Philosophy in Philological Sciences (PhD),**Assoc. Prof. (Int.)**Uzbekistan State World Languages University**E-mail: shirin.3009@mail.ru*

Abstract. *This study explores the phraseographic characteristics of phraseological units operating within scientific discourse. It investigates the principles and techniques used to document, interpret, and systematize such units in lexicographic sources, paying special attention to their structural stability, semantic specificity, and functional roles in academic texts. The research analyzes how the distinctive nature of scientific discourse influences the selection and presentation of phraseological material. Additionally, it examines the interplay between phraseological meaning and scientific context, highlighting the contribution of these units to the structuring and conceptualization of specialized knowledge. Using a functional-discursive framework, the study applies contextual and comparative methods to reveal recurrent models of phraseographic representation in scientific discourse.*

Keywords: *phraseology, phraseological units, phraseography, scientific discourse, academic text, lexicography, semantic features, functional description.*

Annotatsiya. *Mazkur tadqiqot ilmiy diskursda qo'llanadigan frazeologik birliklarning frazeografik tavsifiga bag'ishlangan. Unda leksikografik manbalarda mazkur birliklarni qayd etish, talqin qilish va tizimlashtirish tamoyillari hamda usullari o'rganilib, ularning strukturaviy barqarorligi, semantik o'ziga xosligi va akademik matnlardagi funksional yuklamasi tahlil qilinadi. Tadqiqot doirasida ilmiy diskursning o'ziga xos xususiyatlari frazeologik birliklarni tanlash va taqdim etish jarayoniga qanday ta'sir ko'rsatishi aniqlanadi. Shuningdek, frazeologik ma'no va ilmiy kontekst o'rtasidagi o'zaro bog'liqlik ochib berilib, ushbu birliklarning ixtisoslashgan bilimlarni shakllantirish va kontseptuallashtirishdagi o'rnini asoslanadi. Ishda funksional-diskursiv yondashuv asosida kontekstual hamda qiyosiy tahlil usullaridan foydalanilib, ilmiy diskursda frazeologik birliklarning qo'llanishiga xos tipik modellari aniqlanadi.*

Kalit so'zlar: *frazeologiya, frazeologik birliklar, frazeografiya, ilmiy diskurs, akademik matn, leksikografiya, semantik xususiyatlar, funksional tavsif.*

Аннотация. *В данном исследовании изучаются фразеографические характеристики фразеологических единиц, функционирующих в научном дискурсе. Исследуются принципы и методы, используемые для документирования, интерпретации и систематизации таких единиц в лексикографических источниках, с особым вниманием к их структурной стабильности, семантической специфике и функциональной роли в научных текстах. В исследовании анализируется, как специфический характер научного дискурса влияет на выбор и представление фразеологического материала. Кроме того, рассматривается взаимодействие между фразеологическим значением и научным контекстом, подчеркивая вклад этих единиц в структурирование и концептуализацию специализированных знаний. Используя функционально-дискурсивную модель, исследование применяет контекстуальные и сравнительные методы для выявления повторяющихся моделей фразеографического представления в научном дискурсе.*

Ключевые слова: *фраzeология, фразеологические единицы, фразеография, научный дискурс, академический текст, лексикография, семантические особенности, функциональное описание.*

Introduction. The systematic description of phraseological units used in scientific discourse presents a complex yet essential task within modern linguistics. Such a

description requires not only a thorough understanding of the internal structure and semantics of fixed expressions but also a keen awareness of how these units' function within specific communicative settings, particularly in academic and research contexts. Scientific discourse, characterized by precision, logical coherence, and objectivity, imposes unique constraints on the use of phraseological units, distinguishing them from those found in everyday conversation or literary texts.

Lexicography is a branch of linguistics concerned with the creation and study of dictionaries [1.172]. In other words, lexicography reflects a wide range of linguistic phenomena and various relationships between words, as well as the relationship between language and culture. It is an integral and essential part of studying any language.

According to Russian linguist V.D. Devkin, "many phenomena in a language can only be understood with the help of a dictionary, which guarantees a comprehensive view of interesting facts, their completeness, and diversity. The relevance of the material presented in a dictionary, combined with its maximal semantics and informational content, allows data to be presented concisely and economically" [2.13]. In line with this view, phraseological units used in scientific discourse play an important role in presenting research results concisely, which is highly desirable in academic writing.

O.V. Lomakina argues that phraseography, as a science, studies not only phraseological units themselves but also their place and role in language. Phraseological units can perform various functions in speech: conveying emotions, creating imagery, increasing expressiveness, and even denoting specific social and cultural realities [3]. From this perspective, phraseography becomes an important tool for studying not only language but also the culture in which that language exists.

R.A. Ayupova, in her doctoral dissertation, states: "One of the main tasks of phraseography is the classification of phraseological units. Various approaches to classification exist, based on different principles: semantic, syntactic, functional, etc. Semantic classification may include categories such as actions, states, emotions, and other features. Syntactic classification divides phraseological units into phrases, sentences, and complex structures. Functional classification takes into account the context in which phraseological units are used and their role in communication" [4].

Another important aspect of phraseography is studying the dynamics of phraseological units in a language. Since language is constantly changing, phraseological units are no exception. New units may emerge, while old ones may fall out of use. Studying these changes helps us understand how language responds to shifts in society, culture, and technology.

Lexicography can be theoretical and practical. Theoretical lexicography addresses complex issues such as: developing new types of dictionaries and their typology; designing the macrostructure of dictionaries (selection of dictionary entries, arrangement

principles, identification of homonyms, inclusion of non-core lexicographic materials); developing the microstructure of dictionaries [5.15-23].

Theoretical lexicography is directly linked to practical lexicography because describing a language whether native or foreign is impossible without lexicographic sources. Thus, as V. Gak noted, a dictionary is an integral part of mastering any language.

Thus, the phraseographic description of phraseological units used in scientific discourse is a promising and important area of research. Studying these units expands our knowledge of language structure and function and enriches our vocabulary and worldview.

Methods. To achieve the research objectives, a qualitative analytical design was employed. The study consisted of several stages, each utilizing specific methods:

Corpus-based sampling: Phraseological units were extracted from a manually compiled corpus of scientific texts in Uzbek, Russian, and English. The corpus included research articles, monographs, and conference proceedings from the fields of linguistics, education, and natural sciences.

Contextual analysis: Each identified phraseological unit was examined within its immediate and broader co-text to determine how scientific context influences its meaning, stability, and pragmatic function.

Comparative analysis: The representation of phraseological units was compared across different types of phraseographic sources, including general phraseological dictionaries, specialized academic dictionaries, and lexicographic databases. This comparison aimed to identify patterns of inclusion, definition, exemplification, and labeling.

Functional-discursive analysis: The communicative roles of phraseological units such as marking logical steps, summarizing arguments, or expressing generalizations were classified based on their discourse functions within scientific texts.

The analysis focused on phraseological units that demonstrate relative structural stability, semantic non-compositionality (full or partial), and recurrent usage in scientific discourse. Isolated collocations and free word combinations were excluded.

Results and discussions. The analysis yielded several findings regarding the phraseographic description of phraseological units in scientific discourse.

Phraseological units in scientific discourse typically appear as stable two- to four-component expressions. Unlike their counterparts in literary or colloquial language, they rarely undergo morphological or syntactic transformation. Examples include “play a significant role”, “draw a conclusion”, “give rise to”, “in light of”, and “it should be noted that”. These units maintain a fixed word order and limited variability, which facilitates their reliable interpretation in academic contexts.

The semantic profile of phraseological units in scientific discourse differs markedly from that of emotionally charged or image-based expressions. Scientific phraseological

units primarily serve cognitive and metalinguistic functions. They can be grouped into several semantic categories:

Logical operators: e.g., “as a result”, “consequently”, “on the contrary” – used to signal causal or contrastive relationships.

Summarizers: e.g., “in summary”, “on the whole”, “taken together” – employed to compress and conclude complex arguments.

Hedging devices: e.g., “it is reasonable to assume”, “one may argue that” – used to express caution or uncertainty.

Exemplifiers: e.g., “for instance”, “as illustrated by” – introduce supporting evidence or cases.

These units exhibit reduced figurativeness and increased procedural meaning, guiding the reader through the logical structure of the text rather than evoking sensory images.

Functionally, phraseological units in scientific discourse contribute to three main discourse objectives:

1. Economy of expression to replace longer descriptive paraphrases, allowing concise presentation of recurring ideas.

2. Cohesion and coherence to act as discourse markers, linking sentences and paragraphs into a unified argumentative flow.

3. Standardization and intertextuality: their conventionalized use aligns individual texts with broader disciplinary conventions, facilitating recognition and acceptance within the scientific community.

General phraseological dictionaries tend to include units from scientific discourse only sporadically. When included, definitions are often decontextualized, and no usage notes specific to academic registers are provided. By contrast, specialized phraseographic resources such as dictionaries of academic writing or scientific language offer richer and more practically useful descriptions. These sources typically include: grammatical and collocational information; authentic examples extracted from scientific corpora; register labels (e.g., “formal”, “academic”, “used in research articles”); notes on stylistic and disciplinary variation.

The study revealed that a single classification criterion is insufficient for describing phraseological units in scientific discourse. Purely semantic classifications overlook important functional distinctions, while syntactic classifications fail to capture discourse-level roles. An integrated approach combining semantic categories, syntactic patterns, and discourse functions proved more effective.

The findings highlight the need for a specialized phraseographic approach to phraseological units in scientific discourse. Unlike phraseological units in colloquial or literary language, those in scientific discourse are less expressive and more oriented

toward cognitive and logical functions. This aligns with Lomakina's view that phraseological units can serve different functions depending on the discourse type [3].

The results also support Ayupova's argument that classification should be multifactorial, combining semantic, syntactic, and functional principles [4]. In scientific discourse, functional criteria such as the role of a phraseological unit in argumentation or summarization are particularly important.

Moreover, the study confirms Devkin's assertion about the importance of dictionaries in understanding linguistic phenomena [2]. However, general phraseological dictionaries often fail to capture the nuances of scientific usage. Therefore, developing specialized phraseographic resources for academic and scientific language is essential.

The results also confirm the necessity of a multifactorial approach to classification, as advocated by several phraseography scholars. In scientific discourse, functional criteria such as whether a unit signals a conclusion, introduces an example, or expresses a logical relation are at least as important as semantic or syntactic criteria.

A notable practical implication concerns the inadequacy of general phraseological dictionaries for learners and researchers in academic settings. Users who need to understand or produce scientific texts require specialized lexicographic tools that provide register-specific information, including typical contexts, syntactic behavior, and disciplinary preferences. The development of such resources should be a priority for applied phraseography.

Furthermore, the dynamic nature of scientific language means that phraseological units are not static. New research paradigms and technologies introduce new fixed expressions (e.g., "deep learning", "big data"), while others may shift in frequency or acquire new meanings. Phraseographic description must therefore be iterative and corpus-based, with regular updates reflecting current usage.

Limitations of this study include the relatively small size of the analyzed corpus and the focus on three languages only. Future research should expand the language base and include a diachronic perspective to track changes in phraseological usage over time. Additionally, empirical studies involving dictionary users could assess the practical utility of different types of phraseographic information.

Conclusion. The phraseographic description of phraseological units used in scientific discourse represents a vital yet underexplored area of linguistic research. This study has demonstrated that such units possess distinctive structural, semantic, and functional properties that set them apart from phraseological units in other discourse types. They are marked by structural stability, reduced figurativeness, and a primary role in supporting logical organization and metalinguistic commentary within academic texts.

General phraseographic sources often fail to capture these specificities, underscoring the need for specialized dictionaries of scientific phraseology. An integrated classification framework combining semantic, syntactic, and functional criteria offers the

most promising path forward. By improving the description and documentation of phraseological units in scientific discourse, researchers can enhance both the teaching of academic language and the clarity of scientific communication itself.

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