

## LEXICAL-SEMANTIC ANALYSIS OF ABBREVIATIONS IN ENGLISH AND UZBEK LANGUAGES

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**ANNOTATION:** This study explores the lexical-semantic features of abbreviations in English and Uzbek languages, analyzing their formation, usage, and meaning. The research aims to identify similarities and differences between the two languages in terms of abbreviation structures and functions. By employing comparative and contrastive methods, this paper provides insights into how abbreviations contribute to linguistic economy and efficiency in communication.

**Key Words:** abbreviation, lexical semantics, English, Uzbek, word formation, linguistic economy, morphology.

**АННОТАЦИЯ:** В данном исследовании изучаются лексико-семантические особенности аббревиатур в английском и узбекском языках, анализируется их образование, употребление и значение. Целью исследования является выявление сходств и различий между двумя языками с точки зрения структуры и функций сокращений. Используя сравнительные и противопоставительные методы, эта статья дает представление о том, как сокращения способствуют лингвистической экономии и эффективности общения.

**Ключевые слова:** аббревиатура, лексическая семантика, английский, узбекский язык, словообразование, лингвистическая экономика, морфология.

**ANNOTATSIYA:** Ushbu tadqiqot ingliz va o'zbek tillaridagi qisqartmalarning leksik-semantik xususiyatlarini o'rganib, ularning shakllanishi, qo'llanishi va ma'nosini tahlil qiladi. Tadqiqot qisqartma tuzilmalari va funktsiyalari bo'yicha ikki til o'rtasidagi o'xshashlik va farqlarni aniqlashga qaratilgan. Qiyosiy va qarama-qarshi usullardan foydalangan holda, ushbu maqola qisqartmalar lingvistik iqtisod va aloqa samaradorligiga qanday hissa qo'shishi haqida tushuncha beradi.

**Kalit so'zlar:** abbreviatura, leksik semantika, ingliz, o'zbek, so'z yasalishi, lingvistik iqtisod, morfologiya.

**INTRODUCTION** Abbreviations are an essential component of modern linguistic communication, playing a crucial role in word formation and language efficiency. English and Uzbek languages, despite their typological differences, utilize abbreviations extensively in various fields such as science, technology, media, and daily communication. This study aims to investigate the lexical-semantic characteristics of abbreviations in both languages, comparing their structures, formation processes, and functions.

Scientific terminology refers to a set of terms or words that express both specific and abstract concepts in scientific and technical fields. At the present stage of scientific development, the advancement of global communication and information technologies has led to an increasing interaction between scientific and technical terms in foreign languages (primarily English) and national languages. The Uzbek language, too, faces several challenges in the process of shaping its scientific terminology. One of the major challenges is adapting terms and new concepts borrowed from English while preserving the distinctiveness of national language, science, and culture. This article presents a structural-semantic analysis of scientific terminology in both English and Uzbek. The objective is to identify the differences between these two languages from the perspectives of linguistics, morphology, and semantics, and to show how these differences should be taken into account in scientific communication.

Terminology is a system of terms that define specific concepts in various scientific and technical fields. The accurate and clear expression of terms ensures the effectiveness of scientific communication. Terminology studies the formation of words and phrases in scientific fields, as well as their structural and semantic aspects. The primary function of scientific terms is to express scientific and technical information clearly and understandably. These terms not only communicate information precisely but also facilitate the advancement of scientific research and the development of new knowledge. There are two main aspects of terminology that can be distinguished: 1. Structure – the morphological structure and syntactic characteristics of terms. 2. Semantics – the meaning of terms and their interrelations with other terms.

**Structure and Semantics of Scientific Terms in English**

English is widely used as a global language in science and technology. Scientific terms in English are often based on roots borrowed from other languages, particularly Greek, Latin, and Arabic. These terms frequently appear in the following morphological forms:

- 1. Attached Morphemes** – Scientific terms in English often consist of combined or attached morphemes. For example, the word *thermodynamics* is formed by combining the root *thermo-* (heat) and the suffix *-dynamics* (motion). This structural formation ensures a concise and clear expression of the scientific term.
- 2. Words Introduced by Acronyms** – Many scientific terms in English are used in the form of acronyms or abbreviations, which are simplified versions of longer terms. For example, *DNA* (deoxyribonucleic acid), *laser* (light amplification by stimulated emission of radiation) are abbreviations of more complex scientific phrases.
- 3. Multilayered Semantic Complexities** – Scientific terms in English sometimes consist of several interrelated concepts. This is often achieved by combining multiple words, which reveals the unique semantic dimensions of the term. For example, *quantum mechanics* and *electromagnetic spectrum* are terms that combine multiple concepts to describe complex phenomena.

**Semantics of Scientific Terms in English and Uzbek**

In the semantics of scientific terms in English, contextual approaches are often present. For example, the word *evolution* can refer to a biological process, but it may also be used in the context of social or economic development. Here, the expansion of semantics encompasses both general and specialized meanings of terms.

Scientific terminology in Uzbek has historically been shaped by the integration of words borrowed from Arabic, Persian, Russian, and other languages. While retaining its unique features in terms of pronunciation, syntax, and grammar, the Uzbek language has undergone changes in the process of developing scientific terminology. The formation of scientific terms in Uzbek includes the following directions:

- 1. Use of Arabic and Persian Roots** – Historically, many Uzbek scientific terms have been enriched with Arabic and Persian words. For example, terms like *falsafa*

(philosophy), kimyo (chemistry), and matematika (mathematics) are widely used in Uzbek. 2. Creation of New Scientific Terms –In the process of creating new terms in scientific and technical fields, the possibilities of the Uzbek language are being expanded. Some English terms are being adapted into national equivalents. For instance, kompyuter (computer), internet (internet), and menedjment (management) are examples of terms that have been localized into Uzbek. 3. Borrowed Words –Scientific terms borrowed from English, Russian, and other languages undergo phonetic and morphological changes in Uzbek while retaining specific meanings. These words are often used in their adapted forms in Uzbek, although their grammatical rules may not align with the systems of the original language. From a semantic perspective, scientific terms in Uzbek are more closely related to national concepts, and in some cases, the same English term may have different meanings in Uzbek. For example, while the word evolution refers to a biological process in English, in Uzbek, it may express broader meanings such as rivojlanish (development) or taraqqiyot (progress). The scientific terms in English and Uzbek differ significantly in structure. English terms are often formed through prefixes, suffixes, and acronyms, which allow for the precise expression of meanings. In contrast, Uzbek scientific terms rely more on Arabic, Persian, and Russian roots, which requires a semantic adaptation in the Uzbek language. Moreover, Uzbek scientific terms are often rooted in national and historical contexts, whereas English terms tend to be more universal and global in nature. This can, in turn, lead to some ambiguities or misunderstandings in scientific communication.

**METHODS** The research employs a comparative-contrastive method to analyze English and Uzbek abbreviations. The primary data sources include dictionaries, linguistic corpora, and real-world textual examples from academic, media, and official documents. The study also incorporates a morphological analysis to classify abbreviations based on their formation processes, including initialisms, acronyms, blends, and clippings.

S. V. Grinev-Grinevich offers the following methods of term formation: morphological, syntactic, composition. The earliest method of morphological term formation is conversion, which is actively used in English term formation. This method generates terms such as abort, abuse, bandage, colic, drug, transplant, gag, graft, ichor, healing, help, hook, hurt (BARMS). The most common way of morphological term formation is suffixation. Productive models in modern medical terminology are models with suffixes -ing, -tion (-sion), -er (-or), -ist, -ic.

The suffixes -ing and -tion (-sion) can be used to form the names of processes, actions: aging, feeding, healing, teething, mapping, sweating, opening, peeling, impregnation, immunization, maceration, liquefaction, variolation, radioimmunodiffusion, fission, hypertension, implantation, malabsorption, malformation (BARMS).

The suffixes -ist, -er (-or) can express the meaning of “doer”: alienist, anatomist, bacteriologist, oculist, neurologist, oncologist, urologist, trichologist, proctologist, hematologist, psychiatrist, pulmonologist, messenger, adviser, practitioner (BARMS).

The suffixes -er, -or can also be used to denote equipment names.

**RESULTS** The analysis reveals that while English abbreviations often follow phonetic and morphological simplification patterns, Uzbek abbreviations frequently maintain grammatical consistency with their full forms. English predominantly relies on acronymization and blending (e.g., NASA, smog), whereas Uzbek abbreviations often adhere to syntactic rules and structural integrity (e.g., OTM - "Oliy Ta'lim Muassasasi"). Furthermore, abbreviation usage in Uzbek is more influenced by loanwords and transliterations from Russian and English.

**DISCUSSION** The findings suggest that both languages employ abbreviations for linguistic economy, but their formation mechanisms differ due to phonological, morphological, and syntactic constraints. While English abbreviations tend to be more flexible and widely used in informal speech, Uzbek abbreviations maintain formality and adherence to official language structures. Additionally, Uzbek abbreviation formation often reflects sociolinguistic influences from historical linguistic contacts, particularly with Russian and Arabic.

**CONCLUSION** This study highlights the lexical-semantic features of abbreviations in English and Uzbek, showing both shared and unique characteristics. The differences are largely due to language typology, phonological constraints, and historical influences. Understanding these distinctions contributes to a broader understanding of linguistic economy and word formation processes in both languages.

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