THE ROLE OF ENGLISH IN THE DEVELOPMENT OF SCIENCE AND ISSUES OF ENRICHING SCIENTIFIC TERMINOLOGY IN THE UZBEK LANGUAGE

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Abstract

This article analyzes the dominant role of English in modern science, its significance in global scholarly communication, as well as the issues related to enriching scientific terminology in the Uzbek language. The study examines the main approaches to translating terminology, the importance of standardization, the need to develop scientific translation schools, and the expansion of digital scientific content. The findings demonstrate that effective use of English and the development of the Uzbek scientific language are complementary processes crucial for the advancement of national science.

Keywords: English language, scientific language, scientific terminology, terminological standardization, translation, Uzbek language, global science, scientific communication, digital scientific content.

Introduction

Globalization processes directly influence the development of science by expanding international academic cooperation and knowledge exchange. In this context, English has become the primary communicative tool of the global scientific community. At the same time, enhancing the scientific capacity of the Uzbek language and standardizing national scientific terminology remain urgent issues. This article examines the role of English in scientific development and outlines key directions for enriching scientific terminology in the Uzbek language.

The Role of English in Modern Scientific Communication

In today's globalized world, English serves as the main international language of science, technology, and innovation. A significant portion of scholarly publications worldwide, including those indexed in major databases such as **Scopus** and **Web of Science**, are published in English. This encourages researchers to use English actively in order to disseminate their findings to the global community, establish scientific collaborations, and follow current academic trends.

English proficiency enables scholars to access up-to-date scientific literature, adopt new methodologies, and apply innovative approaches in practice. The predominance of English in scientific communication is driven by several factors:

1. The majority of prestigious scientific journals publish in English;
2. Most scientific information is produced and disseminated in English;
3. International grants, research projects, and collaboration programs require English proficiency.

Thus, mastering English allows researchers to remain informed about cutting-edge discoveries and to present their work on the global academic stage.

Issues of Translation and the Development of Uzbek Scientific Terminology

Strengthening the scientific potential of the Uzbek language requires systematic enrichment of its terminology. Many new scientific concepts, technological notions, and innovative methods enter Uzbek through English. Translating these terms accurately and concisely while adapting them to Uzbek linguistic norms demands close cooperation between linguists and subject-matter experts. Failure to do so may lead to multiple interpretations of the same term and inconsistencies in scientific texts.

Two major approaches are currently used in Uzbek terminology development:

1. **Direct adoption of international terms** *(e.g., computer, server, internet);*

2. **Creating Uzbek equivalents** (*e.g., abstraction → mavhumlashtirish, energy source → quvvat manbai).*

A balanced application of both approaches ensures clarity, consistency, and alignment with national linguistic norms.

Key Directions for Enriching Uzbek Scientific Terminology

1. **Terminological Standardization** – Multiple variants for a single concept often cause confusion. Establishing unified terminological standards and creating regularly updated electronic dictionaries is essential.
2. **Effective Translation Approaches** – Scientific terms in Uzbek are formed through:

-direct adoption of international terms — *virus, atom, component;*

-creation of semantic equivalents — *digital literacy, sustainable development*;

-formation of new Uzbek terms — *multidimensionality (ko‘p o‘lchovlilik), neural network (neyron tarmoq).*

3. **Expansion of Digital Scientific Content** – Increasing the number of Uzbek-language articles, textbooks, podcasts, and video lectures on digital platforms directly contributes to strengthening the national scientific language.
4. **Establishing Schools of Scientific Translation** – High-quality translation of scientific texts requires specialized expertise. Training professional translators, developing methodological guides, and creating translation centers are essential steps.

Challenges and Solutions in Terminological Standardization

One of the current issues in the Uzbek scientific language is the inconsistent use of terms with identical meanings. This inconsistency appears in academic literature, scientific articles, and translations.

The main causes include:

-the absence of a fully developed national terminological database;

-limited collaboration between linguists and field specialists;

-imprecise translation of English terms into Uzbek.

To address these challenges, the following solutions are proposed:

1. Establishing and regularly updating a unified national terminological database;
2. Strengthening cooperation between linguists and subject specialists;
3. Ensuring semantic accuracy in translation;
4. Approving terms through expert committees;
5. Training specialists in high-quality scientific translation from English to Uzbek.

Enhancing Uzbekistan’s Scientific Competitiveness Through English Profecieny

Deep knowledge of English enables Uzbek researchers to integrate into the global academic community. Access to international projects, grants, conferences, and research publications requires English proficiency. High-quality translations from English into Uzbek can enrich the national scientific literature and provide broader learning opportunities for young scholars.

This process contributes not only to scientific development but also to progress in education, technology, and innovation.

Conclusion

In conclusion, English has become the primary communicative tool in contemporary scientific development, providing access to modern scientific achievements, innovative technologies, and research outcomes. For the effective integration of Uzbek researchers into the global scientific community, mastering English, actively participating in scientific communication, and increasing publication rates in international journals are crucial.

Thus, learning English and enriching Uzbek scientific terminology should be viewed as complementary strategic directions that support scientific progress. Only under these conditions can Uzbekistan strengthen its scientific potential and achieve greater competitiveness on the global stage.

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