

Comparative Analysis of English and Uzbek Terminological Lexicography: Theory, Practice, and Future Directions

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Abstract. *This article examines the structure, development, and challenges of terminological lexicography in English and Uzbek. Through comparative analysis, it explores terminographic methodologies, lexical formation, and the integration of terminology into academic and professional discourse. A methodological framework was developed to assess terminological dictionaries, and a corpus-based analysis was conducted to evaluate consistency and standardization. The study highlights linguistic, cultural, and technical barriers in the terminological lexicography of both languages and provides recommendations for harmonization and development.*

Key words: *terminological lexicography, English, Uzbek, terminology, comparative linguistics, corpus linguistics, dictionary compilation.*

Introduction

Terminological lexicography is a crucial subfield of applied linguistics and lexicography that focuses on the compilation and analysis of specialized vocabularies. As the interface between language and knowledge domains, terminological dictionaries are vital tools for professionals, translators, and educators. While English terminography has evolved into a well-established domain with robust standards and practices [Wright 1991: 24], the field in Uzbekistan is in a developmental stage, encountering linguistic, technological, and institutional challenges [Salomov 2006: 53].

This study investigates the principles and practices of English and Uzbek terminological lexicography, comparing their historical evolution, methodological frameworks, and current trends. By doing so, it aims to uncover key differences and similarities and to suggest pathways for improvement, especially in the Uzbek context.

Understanding the differences between English and Uzbek terminological lexicography is not only important for dictionary compilers but also for translators, educators, and researchers engaged in knowledge dissemination across linguistic boundaries.

Materials and Methods

The study uses a comparative, descriptive, and corpus-based methodology:

1. **Literature Review:** Foundational works in terminography and specialized lexicography were analyzed to establish theoretical frameworks [Cabr  1999: 78; Bergenholtz & Tarp 1995: 112].
2. **Corpus Analysis:** A bilingual corpus was created, including 20 English terminological dictionaries (e.g., Oxford Dictionary of Science, McGraw-Hill Engineering Dictionary) and 15

Uzbek counterparts (e.g., “Iqtisodiy atamalar lug‘ati,” “Yuridik atamalar”) to evaluate lexical density, standardization, and definition structures.

3. **Survey and Interviews:** A survey involving 30 Uzbek terminologists and 10 English-speaking lexicographers was conducted to gather qualitative insights about dictionary usage, compilation processes, and terminological challenges.
4. **Quantitative Analysis:** Lexical entries were coded and analyzed using AntConc software to identify frequency, synonym overlap, and thematic clustering.

Results

The study yielded several notable findings:

1. Structural Differences

English terminological dictionaries follow a highly standardized approach, with clear definitions, cross-referencing, usage examples, and etymology [Wright & Budin 1997: 134]. Uzbek terminological dictionaries often lack cross-referencing and standardized semantic structures [Turdikulov 2015: 40].

English terminological dictionaries adopt a **concept-based approach**, grouping terms around cognitive frames. For example:

➤ **Entry from the Oxford Dictionary of Nursing:**

"Hypertension" – *A condition in which blood pressure remains abnormally high, defined clinically as a sustained systolic pressure of 140 mmHg or more or a diastolic pressure of 90 mmHg or more.* [Oxford 2021: 156]

This entry includes definition, clinical parameters, usage, and cross-references to “blood pressure,” “cardiology,” and “hypertensive crisis.”

In contrast, Uzbek dictionaries often list:

➤ **"Gipertenziya"** – *Yuqori qon bosimi kasalligi.* [Tibbiyot atamalari lug‘ati, 2019: 88]

This definition is accurate but lacks contextual usage, scientific threshold values, or cross-referencing, reducing its utility in specialized fields.

2. Lexical Gaps and Inconsistencies

Uzbek dictionaries show high variability in the translation of English terms. For example, the English term “cybersecurity” appears as “kiberxavfsizlik,” “kompyuter xavfsizligi,” and “axborot xavfsizligi” across different sources, leading to inconsistency [Karimov 2020: 92].

3. Standardization and Normative Authority

English terminography benefits from institutional bodies like ISO TC/37 and IATE (Inter-Active Terminology for Europe), ensuring consistency. Uzbekistan lacks a centralized terminology commission with enforceable standards [Salomov 2006: 55].

4. Lexicographical Techniques

Most English dictionaries apply frame-based or concept-based lexicography, while Uzbek compilations tend toward word-for-word translation without consideration for conceptual frames [Cabr   1999: 82]

5. Technological Integration

Most English terminologies are now maintained digitally:

- *IATE (Inter-Active Terminology for Europe)* allows real-time updates and multilingual equivalence.
- *Microsoft Language Portal* offers downloadable glossaries by domain.

Uzbek dictionaries, however, are mostly print-based or exist in PDF format with no dynamic updates. For instance, the *Yuridik atamalar lug'ati* (2014) lacks an online search function, slowing its utility in academic and legal settings.

Discussion

The comparative analysis highlights both the maturity of English terminological lexicography and the developmental challenges facing Uzbek terminography. A key issue is the insufficient integration of linguistic theory into Uzbek dictionary compilation, which hinders usability and clarity for domain-specific users.

The lack of digital terminography tools and corpus-based lexicography in Uzbek further aggravates these problems. For example, English dictionaries are increasingly corpus-driven and updated through online platforms, whereas most Uzbek dictionaries remain static and printed.

One promising area is bilingual terminology development, especially in domains like IT, law, and medicine, where knowledge transfer is essential. Collaborative terminography projects between English and Uzbek specialists could foster mutual enrichment and lexical consistency.

Moreover, training programs in applied terminography and computational lexicography should be institutionalized in Uzbekistan. The establishment of a national termbase, modeled on TermNet or EuroTermBank, would also be a significant advancement.

Conclusion

Terminological lexicography in English and Uzbek presents a striking contrast in terms of historical development, methodological rigor, and standardization. While English terminography operates within a mature, standardized ecosystem supported by international bodies and digital tools, Uzbek terminography remains fragmented and under-resourced.

To bridge this gap, the following steps are recommended:

1. **Institutional Development:** Establish a central terminology authority in Uzbekistan.
2. **Training and Capacity Building:** Offer specialized education in lexicography and corpus linguistics.
3. **Corpus Development:** Create parallel and domain-specific corpora to aid in bilingual terminography.
4. **Digital Integration:** Transition from print to dynamic, digital terminological databases.
5. **International Collaboration:** Engage in projects with international lexicographic institutions.

This study contributes to a deeper understanding of terminological lexicography's comparative dimensions and sets a foundation for future research and policy-making in the field.

With coordinated linguistic, institutional, and technological efforts, Uzbek terminological lexicography can transition from a translation-based discipline to a knowledge-driven and internationally integrated field.

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