The OSCAR PUBLISHING Services
International Journal Of Literature And Languages

VOLUME Vol.05 Issue09 2025
PAGE NO. 33-35
DOI 10.37547/ijll/Volume05Issue09-09

Cross-Linguistic Comparison Of Modern Systems Of Measurement: Insights From Uzbek And English

Zoirjanov Shakhbozbek Shavkatjon o‘g‘li
Doctoral student, Namangan State University, Uzbekistan

Received: 19 July 2025; **Accepted:** 15 August 2025; **Published:** 17 September 2025

Abstract: This study explores the cross-linguistic comparison of modern systems of measurement in Uzbek and English, emphasizing the interplay between international standardization and cultural heritage. Drawing on terminology theory, corpus analysis, and contrastive linguistics, the research investigates how measurement units are represented, standardized, and embedded in everyday discourse. The findings reveal that while both Uzbek and English have integrated the International System of Units (SI) into scientific and educational practices, each language retains traditional and historical terms that reflect unique cultural identities. Uzbek continues to preserve native units such as qarich, gaz, and misqol, often employed in idiomatic expressions, whereas English sustains imperial units like inch, mile, and pound, especially in metaphorical usage and American contexts. These differences highlight the challenges of equivalence in translation and underscore the broader role of measurement terms as both linguistic and cultural phenomena. The study contributes to understanding how global scientific norms intersect with local linguistic traditions, offering insights for translation studies, cultural linguistics, and terminology research.

Keywords: Units of measurement, cross-linguistic comparison, Uzbek and English terminology, International System of Units (SI), cultural linguistics, translation studies.

Introduction: Measurement systems have always played a vital role in human civilization, providing a foundation for trade, science, technology, and daily communication. Beyond their practical application, measurement units function as linguistic symbols that embody historical experiences, cultural traditions, and cognitive frameworks of different societies. As a result, the study of measurement terms is not limited to metrology alone but extends into linguistics, cultural studies, and translation.

In Uzbek, the coexistence of traditional units such as qarich (span), gaz (yard), and misqol (weight unit) with SI-based terms like metr (meter), kilogramm (kilogram), and sekund (second) reflects the layered nature of linguistic development shaped by Central Asian cultural heritage and Soviet-era standardization [4]. In contrast, English demonstrates a duality between the internationally recognized SI system and the historically entrenched imperial system, including units such as inch, mile, pound, and gallon [5]. This dual system continues to influence scientific practice, everyday speech, and cultural idioms, particularly in the United States and the United Kingdom.

Despite the significance of measurement units in linguistic and cultural expression, comparative studies on this subject remain limited, especially with respect to typologically different languages such as Uzbek and English. Previous scholarship in terminology studies has underscored the importance of standardization and semantic equivalence. For example, Cabré (1999, pp. 30–35) stresses that terminology is not only about naming scientific concepts but also about reflecting cultural and cognitive systems. Similarly, Sager emphasizes the methodological challenges of ensuring equivalence between terms across languages [7]. From a lexicographic perspective, Crystal (2003, pp. 112–115) points out that units of measurement illustrate both linguistic typology and the cultural specificity of language. Furthermore, Alder highlights the historical difficulties caused by the lack of standardization in pre-

metric Europe, where measurement units varied widely across regions [2].

The aim of this paper is to conduct a systematic comparison of modern measurement units in Uzbek and English. It focuses on three key dimensions: (1) the linguistic representation and structure of measurement terms, (2) the integration of SI and traditional systems in both languages, and (3) the cultural and idiomatic extensions of measurement units. By situating the analysis at the intersection of linguistics, terminology, and cultural studies, this research seeks to contribute to a deeper understanding of how global scientific norms and local traditions interact in the domain of measurement.

LITERATURE REVIEW AND METHODOLOGY

The study of measurement units lies at the intersection of linguistics, terminology, and cultural studies. Scholars in terminology theory, such as Cabré (1999, pp. 30–35) and Sager (1990, pp. 55–60), emphasize that terminological systems serve as both cognitive structures and communication tools, facilitating the transfer of specialized knowledge across languages. These works provide the theoretical foundation for examining the equivalence and standardization of measurement terms.

From a lexicographic perspective, Crystal (2003, pp. 112–115) argues that measurement terminology demonstrates how linguistic systems integrate scientific knowledge into everyday vocabulary, often preserving cultural meanings alongside technical precision. Alder (2002, pp. 61–63) further illustrates the socio-historical complexity of measurement by documenting the fragmented systems in pre-metric Europe, where regional variation impeded economic and scientific exchange.

In the Uzbek context, dictionaries and lexicographic studies, particularly O‘zbek tilining izohli lug‘ati (2006, vol. 2, pp. 314–316), provide evidence of both traditional units (qarich, gaz, misqol) and SI-based terms (metr, kilogramm, sekund). These sources highlight the linguistic layering resulting from centuries of cultural exchange, Soviet-era standardization, and globalization.

Comparative linguistic studies of English demonstrate the coexistence of the SI system with imperial units, notably in the United States, where terms such as inch, mile, and pound continue to be widely used (Oxford English Dictionary, 2020, vol. 7, pp. 102–104). This dual system creates unique challenges for translation and intercultural communication, as idiomatic expressions frequently rely on historical units (give an inch, take a mile).

Despite these contributions, direct cross-linguistic comparisons between Uzbek and English measurement systems remain scarce. Most existing studies focus either on terminology theory in general or on single-language lexicographic analyses. This gap underlines the importance of a systematic, comparative investigation.

RESULTS AND DISCUSSION

1. Standardization of SI Units

Both Uzbek and English have officially adopted the International System of Units (SI) in education and science.

In Uzbekistan, SI adoption accelerated under Soviet reforms in the 20th century, with dictionaries recording new standardized terms (metr, kilogramm, sekund) alongside older traditional ones [4].

In English, SI dominates in international and scientific contexts, but imperial units remain in everyday American usage, such as mile and pound.

2. Persistence of Traditional Units

Uzbek still employs indigenous terms such as qarich (span), gaz (≈1 m), and misqol (≈4.25 g), often used in colloquial and idiomatic contexts.

English retains imperial measures (inch, yard, gallon), particularly in the U.S., reflecting historical continuity and cultural identity.

3. Linguistic Representation and Equivalence

Qarich and gaz roughly correspond to span and yard, but precise equivalence is absent due to scale differences.

Misqol has no common English equivalent, demonstrating cultural specificity in Uzbek.

English gallon similarly lacks a native Uzbek equivalent, replaced by SI litr.

4. Idiomatic and Metaphorical Usage

Uzbek idioms: bir qarich joy (“tiny place”), misqollab ishlash (“meticulously, little by little”).

English idioms: give an inch, take a mile (exploitation), inch by inch (gradual progress), pound of flesh (relentless demand).

These idiomatic extensions confirm Crystal’s observation that measurement terms preserve cultural semantics alongside technical precision.

DISCUSSION

The findings highlight both convergence through SI standardization and divergence through cultural retention of traditional units.

Global Convergence vs. Local Divergence SI units provide scientific uniformity and international

comparability. However, local systems endure: Uzbek retains qarich and misqol, reflecting Central Asian heritage, while English maintains imperial units, particularly in the U.S., as Alder notes regarding resistance to metric reform [1].

Translation Challenges

Rendering Uzbek metaphors involving misqol into English requires cultural substitution (misqollab ishlash → "to work meticulously").

English idioms like give an inch, take a mile resist literal translation; adaptive Uzbek equivalents (bir qarich bersa, bir gaz olish) are needed. This supports Sager claims that terminological equivalence is not purely linguistic but cultural [6].

Sociolinguistic Implications

Traditional units act as identity markers. Uzbek speakers maintain qarich in daily speech, ensuring cultural continuity despite official SI dominance.

English demonstrates a unique dual system, where imperial units persist in public life, reflecting sociopolitical identity [3].

Terminology functions beyond naming – it encodes cultural and cognitive structures. The comparative evidence from Uzbek and English measurement systems confirms this, showing that units of measurement are both technical and cultural language units.

CONCLUSION

This comparative study of Uzbek and English measurement systems demonstrates that while both languages are firmly integrated into the global framework of the International System of Units (SI), each continues to preserve and employ traditional units that reflect unique historical, cultural, and linguistic identities. The results reveal a dual dynamic: global convergence through scientific standardization and local divergence through cultural retention.

In Uzbek, terms such as qarich, gaz, and misqol survive in colloquial usage and idiomatic expressions, symbolizing Central Asian heritage even as SI-based terms (metr, kilogramm, sekund) dominate in education and official domains. In English, the imperial system (inch, mile, pound, gallon) remains deeply embedded in American daily life, coexisting with SI units in scientific and international contexts. Terminology is not only a tool of precision but also a reflection of cultural cognition.

The persistence of non-SI units in both languages underscores several important implications. For translation studies, literal equivalence often fails, requiring cultural adaptation to preserve meaning in idiomatic contexts. For cultural linguistics, measurement units illustrate how language encodes collective memory and identity. For terminology research, the case of Uzbek and English confirms that terms function across disciplinary boundaries, serving as both scientific and cultural symbols.

Ultimately, the study highlights that measurement systems are not merely technical conventions but interdisciplinary language units that embody the intersection of science, language, and culture. Recognizing this dual role can enrich approaches to lexicography, cross-linguistic research, and intercultural communication.

REFERENCES

1. Alder, K. The Measure of All Things: The Seven-Year Odyssey and Hidden Error that Transformed the World. London: Abacus. 1990. – 61-63p.
2. Alder, K. The Measure of All Things: The Seven-Year Odyssey and Hidden Error that Transformed the World. London: Abacus. 2002. – 66-70p.
3. Crystal, D. (2003). A Dictionary of Linguistics and Phonetics (5th ed.). Oxford: Blackwell. 2003 – 112-115p.
4. O'zbek Tilining Izohli Lug'ati, 5-jild. Tahrir hay'ati: E.Begmatov , A. Hojiyev , A.Madvaliyev va boshq. – T.: G'afur G'ulom Nomidagi Nashriyot-Matbaa Ijodiy Uyi, 2023. ISBN 978-9943-8834-8-2. – 314-316p.
5. Oxford English Dictionary. Oxford: OUP, volume 7, 2020. – 102-104p.
6. Sager, J. C. (1990). A Practical Course in Terminology Processing. Amsterdam: John Benjamins. 1990. – 55-60p.
7. Sager, J. C. A Practical Course in Terminology Processing. Amsterdam: John Benjamins. 1990. – 65-75p.