

INNOVATIVE LEXICOGRAPHIC PROCESSES IN SPORTS TERMINOLOGY: A CORPUS-BASED STUDY OF WINTER SPORTS TERMS

Hayitova Mohira Alimovna,

Uzbek State University of Physical Education and Sports,
Teacher of the Department of Uzbek and Foreign Languages
mohirah8184@gmail.com

Abstract. This article examines innovative lexicographic processes in the formation, development, and semantic evolution of winter sports terminology. Drawing on digital corpora, multilingual lexicographic sources, and comparative sports linguistics, the study analyzes how contemporary technological, cultural, and communicative factors shape the lexical-semantic structure of winter sports terms. The research identifies structural models of term formation, cross-linguistic variation, metaphor-based semantic expansion, and terminological convergence in international sports communication. The findings demonstrate that corpus-based approaches significantly enhance the accuracy, standardization, and descriptive potential of sports lexicography, providing new insights relevant to applied linguistics, terminology, and sports communication.

Keywords: winter sports terminology, corpus linguistics, lexicography, semantic analysis, sports communication, terminography, metaphorical modeling

Introduction. Winter sports terminology is one of the fastest-developing branches of modern applied linguistics due to intensive international competitions, growing digital media influence, and global broadcasting. As the sports industry expands, so does the linguistic landscape associated with it; new terms emerge, existing terms undergo semantic shifts, and multilingual communication demands standardized definitions. This creates the need for innovative, corpus-driven lexicographic approaches that allow researchers to analyze large volumes of authentic linguistic data and identify semantic trends with high precision.

Recent developments in digital corpus technology have significantly transformed terminography. Annotated corpora enable the extraction of frequency patterns, contextual uses, semantic frames, and cross-linguistic equivalents of sports terms. Winter sports—figure skating, freestyle, biathlon, snowboarding, alpine skiing—present particularly rich material due to their complex techniques, specialized equipment, and metaphor-laden terminology. Furthermore, the increasing inclusion of newly developed events (e.g., big air, mixed team competitions) introduces fresh terminological layers requiring systematic lexicographic treatment.

This study seeks to analyze innovative lexicographic processes associated with winter sports terminology, focusing on structural-semantic properties, corpus-based modeling, and multilingual comparison.

Literature Review. Scholarly interest in sports terminology has grown substantially over the last two decades, particularly in relation to its semantic dynamics and structural complexity. Early foundational works on terminology emphasize systematization, conceptual hierarchy, and the functional nature of special vocabulary [Bauer, 2018: 54]. These principles continue to inform contemporary sports lexicography but have expanded through digital methodologies.

1. **Corpus-Based Terminology Research.** Advancements in corpus linguistics have provided reliable tools for extracting, comparing, and analyzing terminological units across domains. Biber's frequency-based analysis demonstrates that corpora allow researchers to observe

linguistic variability in real communicative settings, especially in professional discourse [Biber, 2012: 41]. In sports linguistics, corpora help uncover patterns such as recurrent collocations (“triple jump,” “edge control,” “speed section”) and semantic shifts shaped by rule changes or broadcasting trends.

2. Metaphor and Cognitive Approaches. Winter sports terminology often includes metaphorical elements that convey dynamic, spatial, and technical concepts. Lakoff and Johnson argue that metaphor is a primary cognitive mechanism that structures abstract concepts through concrete experience [Lakoff & Johnson, 2003: 112]. In figure skating and snowboarding, for instance, terms such as “axel,” “flip,” “grip,” or “rail slide” demonstrate embodied conceptualization grounded in motion, space, and balance.

3. Multilingual and Cross-Cultural Terminology. Researchers note that international sports communication encourages terminological convergence, borrowing, and hybridization. English remains the dominant donor language for winter sports due to the role of international federations and global media [Turner, 2021: 92]. Comparative studies show that many languages adopt English-based terms with little modification, while others integrate them morphologically or semantically.

4. Digital Lexicography and AI-Based Tools. Recent studies highlight the role of digital corpora, automated parsing, AI-assisted annotation, and multimodal data in improving terminographic accuracy. Sports linguistics increasingly relies on computational techniques for semantic clustering, metaphor detection, and terminological mapping [SportCorpus Data, 2024: 11].

Taken together, existing literature underscores the growing importance of innovative lexicographic and corpus-based approaches in sports terminology research.

Methodology. The study employed a mixed-method approach combining corpus linguistics, structural analysis, semantic modeling, and cross-linguistic comparison. The methodological framework included the following stages: 1. Corpus Design and Data Collection

A specialized digital corpus of winter sports terminology was created, consisting of 720 terms extracted from official rulebooks, international federation glossaries, Olympic documentation, sports media, and multilingual dictionaries. Data were collected from 2018–2024 and annotated according to part of speech, semantic class, and usage context. The procedure aligns with principles of terminographic corpus creation described in previous research [SportCorpus Data, 2024: 23].

2. Structural-Semantic Analysis

Each term was analyzed for morphological structure (simple, compound, hybrid), semantic motivation, and conceptual categories (technical, spatial, biomechanical, tactical). The method is consistent with structural terminology studies emphasizing componential analysis [Bauer, 2018: 54].

3. Corpus-Based Semantic Mapping

Using corpus analysis tools, concordance lines and frequency lists were generated to identify dominant semantic frames, collocations, and contextual variations. This stage builds on Biber's approach to frequency-driven linguistic description [Biber, 2012: 41].

4. Metaphorical Modeling

Semantic metaphors were identified using the cognitive linguistic framework proposed by Lakoff and Johnson, focusing on motion, force, balance, and space metaphors common in winter sports terminology [Lakoff & Johnson, 2003: 112].

5. Cross-Linguistic Comparison

Terminological equivalents were compared across English, Russian, and Uzbek, analyzing differences in borrowing strategies, semantic adaptation, and morphological integration. Prior research on international sports terminology was used as a reference point [Turner, 2021: 92].

Results and Discussion. 1. Structural Trends in Winter Sports Terminology

Corpus analysis revealed that 58% of winter sports terms are compound units ("double axel," "edge pressure," "speed section"), while 27% are borrowings primarily from English. Hybrid formations such as snowpark, skicross, and ice-dance lift demonstrate an active blending process in modern sports vocabulary.

2. Metaphorical and Cognitive Patterns

The corpus identified several dominant metaphorical categories:

Motion ("take-off," "landing," "drive phase")

Spatial orientation ("inside edge," "fall line")

Force and energy ("power jump," "impact zone")

These metaphors help conceptualize complex biomechanical movements, supporting findings in cognitive linguistics [Lakoff & Johnson, 2003: 112].

3. Cross-Linguistic Variability

Comparison showed high convergence in terminology due to international standardization, but certain languages adapted terms differently.

4. Lexicographic Innovation and Standardization

Digital corpora improved term definition accuracy by enabling context-based descriptions rather than abstract interpretations. Frequency analysis helped identify outdated terms and emerging neologisms, supporting terminographic innovation and lexicographic modernization.

Conclusion. The study demonstrates that corpus-based approaches significantly improve the analysis, description, and standardization of winter sports terminology. Innovative lexicographic processes—digital corpora, semantic mapping, metaphor modeling, and multilingual comparison—allow researchers to trace terminological dynamics with greater precision. Winter sports terminology is characterized by active borrowing, structural hybridization, metaphor-driven semantic expansion, and high levels of international convergence. These findings contribute to modern terminology, applied linguistics, and sports communication by offering new methodological tools and descriptive frameworks.

References

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