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THE FORMATION AND LINGUISTIC REPRESENTATION OF TERMINOLOGICAL CONCEPTS IN ENGLISH AND UZBEK AVIATION PROFESSIONAL DISCOURSE: A CONTRASTIVE LINGUISTIC STUDY

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Abstract: This article examines the formation and linguistic representation of terminological concepts in English and Uzbek aviation professional discourse from a contrastive linguistic perspective. The study aims to identify the structural, semantic, and functional characteristics of aviation terminology in both languages and to determine the similarities and differences in the conceptualization of specialized aviation knowledge. Particular attention is paid to the linguistic mechanisms involved in the formation of aviation terms, including semantic specialization, word formation, borrowing, and the use of terminological compounds. The research also explores how linguistic and cultural factors influence the representation of aviation-related concepts in professional communication. A contrastive analysis of English and Uzbek aviation terminology can reveal patterns of terminological equivalence, semantic variation, and conceptual correspondence. The findings may contribute to the development of aviation terminology, specialized translation practices, and professional language teaching.

Keywords: aviation discourse, aviation terminology, terminological concepts, English language, Uzbek language, contrastive linguistics, linguistic representation, term formation, semantic analysis, professional communication, terminological equivalence, specialized translation.

Introduction

In the modern world, aviation plays a crucial role in international communication, transportation, economic development, and technological cooperation. As the aviation industry continues to develop, the need for accurate, standardized, and internationally comprehensible terminology becomes increasingly important. Aviation professional discourse is characterized by a specialized vocabulary that reflects technical knowledge, operational procedures, safety requirements, and professional communication practices. In this context, the study of aviation terminology represents an important area of linguistic research, particularly when comparing languages with different structural and typological characteristics, such as English and Uzbek.

English occupies a prominent position in international civil aviation communication. Its terminology is widely used in aviation operations, pilot–air traffic controller communication, technical documentation, and professional training. Uzbek aviation terminology, meanwhile, develops through the interaction of international standards, national linguistic resources, translation practices, and the specific communicative needs of aviation professionals. The relationship between these two terminological systems provides an important basis for examining how specialized concepts are formed, expressed, and interpreted across languages.

From a linguistic perspective, aviation terminology is not merely a collection of technical words. It represents a structured system of concepts associated with aircraft, navigation, flight operations, airport management, air traffic control, and aviation safety. These concepts are linguistically represented through different mechanisms, including derivation, compounding, abbreviation, borrowing, semantic specialization, and terminological translation. The investigation of these mechanisms makes it possible to identify the structural and semantic characteristics of aviation

terms in English and Uzbek. The relevance of this study lies in the need to establish how terminological concepts are formed and represented in the two languages and to identify the linguistic factors that influence their equivalence in professional communication. Although international aviation terminology demonstrates a considerable degree of standardization, differences in grammatical structure, lexical resources, and translation conventions may result in variations in the expression of the same technical concept.

The aim of this study is to investigate the formation and linguistic representation of terminological concepts in English and Uzbek aviation professional discourse from a contrastive linguistic perspective. The study focuses on the structural, semantic, and functional characteristics of aviation terms, the principal mechanisms of their formation, and the similarities and differences between the two terminological systems.

Main Body

Aviation terminology constitutes a particularly significant terminological system because the interpretation of technical expressions can directly affect operational efficiency and flight safety. Terms used in aviation communication refer to clearly defined objects, procedures, conditions, and professional activities. Examples include aircraft, runway, air traffic control, flight altitude, and emergency landing. From a terminological perspective, it is important to distinguish between a term and the concept it represents. A concept is a unit of specialized knowledge, whereas a term is the linguistic expression used to designate that concept. For example, the English term runway and the Uzbek expression “uchish - qo‘nish yo‘lagi” refer to the designated surface used for aircraft take - off and landing. Although the linguistic forms differ considerably, their conceptual relationship is based on a shared technical function. The Formation of Aviation Terminology in English. English aviation terminology has developed through the interaction of general linguistic processes, scientific and technological innovation, and international professional standardization. Its lexical system includes simple terms, derived words, compound terms, abbreviations, and specialized multiword expressions. Abbreviations and acronyms are also prominent in aviation discourse. Examples include ATC (air traffic control), ATIS (automatic terminal information service), and VFR (visual flight rules). These forms are particularly useful in technical documentation and operational communication, where concise and standardized expressions are required. Nevertheless, their interpretation depends on professional knowledge and familiarity with the relevant standards. These word-formation processes demonstrate that English aviation terminology is a dynamic system. Its development reflects both the expansion of aviation knowledge and the need to express specialized concepts accurately and consistently.

The Formation and Development of Aviation Terminology in Uzbek

Uzbek aviation terminology has developed through the interaction of national linguistic resources and international technical terminology. Its formation is influenced by the development of civil aviation, the translation of technical documentation, professional education, and the adoption of internationally recognized concepts. One important mechanism is the use of native Uzbek lexical resources to represent aviation concepts. For example, “uchish-qo‘nish yo‘lagi” is a descriptive compound expression corresponding to the English term runway. The Uzbek expression explicitly identifies the principal functions associated with the relevant airport infrastructure: take-off and landing. This example illustrates a structural difference between the two languages. English expresses the concept through a compact lexical unit, whereas Uzbek uses a multiword construction. The difference concerns the linguistic form rather than the fundamental technical concept. Another important process is borrowing. International aviation communication relies on numerous technical expressions whose forms may be retained, adapted, or translated when introduced into other languages. In Uzbek, the use of international technical terminology may coexist with native-language equivalents and descriptive expressions. The choice between borrowing and translation depends on several factors, including the degree of international

standardization, the availability of an established Uzbek equivalent, the intended audience, and the requirements of the relevant technical document.

Contrastive Analysis of English and Uzbek Aviation Terminology

A contrastive analysis makes it possible to identify similarities and differences in the ways English and Uzbek represent aviation concepts. The comparison should consider lexical structure, semantic content, word-formation mechanisms, and professional usage. The following examples illustrate several possible relationships between English terms and Uzbek equivalents.

English term	Uzbek equivalent	Linguistic feature
Aircraft	Havo kemasi	A compact English term corresponds to a two-word Uzbek expression.
Runway	Uchish-qo‘nish yo‘lagi	A single English lexical item corresponds to a descriptive Uzbek compound.
Air traffic control	Havo harakatini boshqarish	Both expressions contain several elements, but their grammatical structures differ.
Flight altitude	Parvoz balandligi	Both expressions represent the concept through a noun-based construction.
Emergency landing	Favqulodda qo‘nish	The Uzbek equivalent uses a lexical modifier followed by a noun.
Navigation	Navigatsiya	The terms demonstrate a close relationship through international terminology.

Linguistic Representation and Terminological Equivalence

Linguistic representation refers to the ways in which specialized concepts are expressed through the lexical, morphological, syntactic, and semantic resources of a language. In aviation discourse, this process is particularly important because terminology must support accurate interpretation across professional contexts.

Three broad relationships can be distinguished when comparing English and Uzbek aviation terms. The first is direct or near-direct equivalence, in which the terms in both languages represent substantially the same technical concept. Internationally established terms and their accepted Uzbek counterparts may demonstrate this relationship. The second is structural or descriptive equivalence, in which the same concept is expressed through different grammatical structures. The relationship between runway and uchish-qo‘nish yo‘lagi illustrates this pattern. The third is context-dependent equivalence, in which the appropriate Uzbek equivalent depends on the specific meaning and function of the English term in a professional context. This situation may arise when a lexical item has several meanings or when a technical expression belongs to a specialized operational procedure. These relationships have direct implications for translation. Translators must identify the concept represented by a term before selecting its equivalent. A formally similar word may not always communicate the same technical meaning, while a structurally different expression may provide an accurate and natural translation.

Conclusion

The formation and linguistic representation of terminological concepts in English and Uzbek aviation professional discourse constitute an important area of contrastive linguistic research. The comparison demonstrates that aviation terminology functions as a specialized system in which lexical forms represent technical concepts associated with aircraft, navigation, flight operations, airport infrastructure, and aviation safety. The analysis highlights the importance of several word-formation mechanisms, including compounding, derivation, abbreviation, borrowing, and semantic specialization. These mechanisms contribute to the development of aviation terminology in both languages, although their linguistic realization may differ according to the grammatical and lexical

resources of each language. One of the principal findings of the contrastive discussion is that terminological equivalence does not necessarily require formal similarity. A single English term may correspond to a multiword Uzbek expression, while internationally established terms may retain similar forms across languages. Such differences demonstrate the importance of distinguishing between the linguistic structure of a term and the technical concept it represents.

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