UDC 81'276.6:62:001.4
DOI https://doi.org/10.32782/2409-1154.2026.78.19

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METHODOLOGICAL PRINCIPLES OF DICTIONARY COMPILATION: THE CASE OF SPECIALIZED TERMINOLOGY SELECTION

Summary. The article reviews key linguistic, methodological, and lexicographic aspects of compiling learner-oriented terminological dictionaries, with a focus on to the field of construction terminology and types of its formation. The main practical goal of teaching foreign languages in technical higher education institutions is to equip students with the ability to read and comprehend specialized literature. Thus, the role of domain-specific terminological dictionaries is indispensable. Taking into account the practical experience of the Department of Foreign Languages of the Prydniprovska State Academy of Civil Engineering and Architecture, the authors identify and characterize the primary challenges faced by compilers of terminological translation dictionaries. Term selection is performed in two complementary domains: the sphere of fixation (documented usage) and the sphere of functioning (active application), which allows presenting industry terminology at the modern stage of development. The article characterizes the following principal criteria for term selection: statistical (frequency, range, distribution) and lingo-methodological (collocability, valence, word-formation activity, polysemy, thematic relevance, stylistic functionality). The authors consider it methodologically sound to take into account the distinction of industry-specific concepts incorporating general industry terms, core, and peripheral terminological units in the learner's dictionary. It is researched that the terminological minimum for a learner's dictionary should be selected with the aim to encompass the predominant corpus of terms that prospective civil engineers can effectively deploy in their professional practice. The analysis of English and Ukrainian terminology of the construction industry and architecture provides evidence for the idea that terminological systems adhere to the established laws of general-language word formation.

Therefore, the effective compilation of a learner's terminological dictionary requires a scientifically grounded selection and systematization of relevant industry terminology, considering its structure and practical value for future specialists.

Key words: term, learner's terminological dictionary, industry terminology, terminological collocations, word-formation model, semantic derivation.

At the modern stage of human development, the role of its informational support systems has significantly increased and dictionaries undoubtedly play a certain role in this. A characteristic phenomenon in modern languages is the the ongoing expansion and enrichment of vocabulary due to terminological lexicon, which arises as a direct outcome of progress in the fields of human activity this terminology is associated with. The advancement of science and technology, progressive deepening of collective knowledge about the world, and the widespread dissemination and accessibility of mass media lead to a continuous increase in the volume of available information. To navigate and interpret these developments, it is often necessary to quickly find the translation of specific scientific and technical concepts from various fields of knowledge. That is a task in which terminological dictionaries play an essential facilitative role. Modern lexicography develops through a deep reinterpretation of known directions. One of them is terminological lexicography.

Problem Statement. It is well established, the main practical goal of teaching foreign languages in technical higher education institutions is to cultivate students' capacity to read and understand specialized literature. In this context, the significance of specialized

terminological dictionaries is evident. However, the determination of scientifically substantiated criteria for selecting linguistic units when compiling a learner's dictionary of terms remains a critical unresolved issue in terminography, which proves the **relevance** of the present research. This research aims to present and analyse the experience of developing such terminological dictionaries at the Department of Foreign Languages of the Prydniprovska State Academy of Civil Engineering and Architecture. This initiative began in the 1990s of the previous centuries and persists to the present day. The first attempt was the 'Terminological minimum of names of construction machines and mechanisms. General industry terms', which was published as methodological guidelines in teaching the translation of specialized texts. The first section in this edition was structured according to an alphabetic-nested principle. All terms were assigned continuous numbering to enable fast identification and retrieval of requisite entries. The organizing word was a particular base term (according to the paradigmatic structure of the term system). For instance, engine, monkey engine, ringing pile engine, hoist engine, reciprocating steam engine, fixed engine. Through collaborative efforts with colleagues from the Department of Building Materials and under the inspirational leadership of Associate Professor V. O. Martynenko, the leading specialist in the technology of production of aerated concrete, two terminological dictionaries were prepared and published. These dictionaries were printed through sponsorship by German construction companies. Although they have a narrow thematic focus, their illustrated components include sections on general information about building types and their structural elements, building structures, construction machines, building materials, aerated concrete, and the terms that name these concepts of construction production.

The study of the term in general and the research of term systems of individual branches of science and production is undoubtedly a relevant problem of modern linguistics. Interest in industry-specific term systems is caused not only by the socio-economic significance of this class of nomination as a means of linguistic coding and formalizing conceptual knowledge in various spheres of human activity, but also from the fact that terminology represents the most dynamic segment of the lexicon, reflecting humanity's scientific and technical advancements. It should be emphasized that in various modern languages, shifts in the lexical system are especially evident in terminology, both at the level of semantics and in the means of naming, which can be explained by the phenomenon of terminological nomination.

Main Material. Term selection is the main problem faced by compilers of terminological translation dictionaries. To compile a learner's English-Ukrainian dictionary of the construction industry, it is necessary to use industry-specific encyclopedic dictionaries and general language dictionaries, encyclopedic reference books on various construction sectors, specialized monographs, and periodicals from recent decades. Thus, selection is performed in two spheres: the sphere of fixation and the sphere of functioning, which allows presenting industry terminology at the modern stage of development. The criteria for term selection integrate statistical parameters (frequency, range, distribution) with linguo-methodological parameters (collocability, word-formation activity, polysemy, thematic relevance, stylistic functionality). According to the negative criterion, semantically transparent derivatives and compound terms should not be included in the dictionary. Their meaning can be inferred from the semantics of their constituent bases.

In the view of numerous lexicographical scholars, international terms that are similar in composition and phonetics, and coincide in meaning with the corresponding terms of the native language should also not be included in the dictionary, despite the fact that they meet the semantic principles of selection. Only those borrowed terms that have different meanings despite phonetic and orthographic resemblance should be included in the dictionary. In our opinion, a learner's dictionary tailored to a specific sublanguage should encompass not merely general-language units but also those specialized concepts unique to the given industry.

The learner's terminological dictionary serves three primary functions: educational, referential, and systematizing. A dictionary of this type has the following objectives:

1. To reflect some important aspects of term formation when reading scientific and technical literature in the relevant specialty.
2. To facilitate structured organization and accumulation of vocabulary within a coherent rational system.

As it is known, the basis of the typology of conceptual dictionaries is the grouping of words in the lexico-semantic system. Taking into account the distinction of industry concepts and, accordingly, the distribution of terms in the industry term system, we propose to distinguish the following categories of terms in construction terminology:

1. General industry terminological units: single-word or two-component terms. For instance, machine, building materials, engine. In addition, generic general industry terms, which name generic concepts (hoist engine, excavating machine), and specific terms, which reflect subspecies concepts (crushing machine, earth-moving machine), are distinguished in this group.
2. Core terms: single-word or terminological collocations that denote subspecies concepts (loader, vibrator).
3. Peripheral terms: single-word or terminological collocations that name concepts and become derivatives of subspecies concepts (overloader, external vibrator).

The terminological minimum for a learner's dictionary should be selected to encompass the core corpus of terms that future civil engineers will be equipped to utilize in their professional activities.

The terminological units of the learner's dictionary are presented in their base form. Along with the main term, term-collocations that form nests with it are grouped. They are arranged in alphabetical order within the respective dictionary entry. Moreover, in such term-collocations, the main word is usually not repeated but is replaced by the initial letter of the word. For example, pile – паля, p. afterdriving – добивка паль, p. arrangement – розташування паль, p. cap – наголовник палі.

The terminologies of the construction industry and architecture in English and Ukrainian, like those in other domains, are predicated upon the principles of general-language word formation.

New terms in both languages are derived from native and borrowed materials employing productive complete models.

Considering the set of the above-mentioned principles for the selection of terminological material and the requirements that allow distinguishing terms among the diverse lexicon, we included the following groups of terms in the terminological dictionary: 1) simple terminological units: single-word terms created by the method of affixation or interpretation of a general literary word. For example, drum, pump, beam, concrete, cement, binding, batcher, decking, densification, overcoating, trailer, pile; 2) compound terminological units: two-component terms characterized by integral

form and formed by the method of compounding or reinterpretation of a generally used word. For example, padstone, steamproofness, slag-alkaline, wheelbarrow, frost-resistant, slag-lime, daylighting, oversailing, overfall.

Terminological collocations are classified as follows:

1. Complex terminological collocations, those in which substituting one component disrupts the semantic integrity of the entire unit. For example, butterfly valve, floating foundation, fly ash, impact viscosity, floating pile, cement pasta, air pocket.

2. Free terminological collocations: those with synonymous substitution of elements while preserving the semantic integrity of the entire collocation. For example, concrete pile, reinforced concrete pile, timber pile, steel pile, Peerless pile, point bearing pile, precast-concrete pile.

3. Phrasal terminological collocations: those expressing syntactic relations through prepositions or conjunctions such as of, with, for, etc. For example, mixer for foam concrete, cast-in-place pile, concrete with dense aggregates, concrete with porous aggregate, built-in radiator, depth-to-span ratio.

The dictionary should also show the main most frequently used terminological abbreviations in scientific and technical literature on construction and architecture. For example: a. 1. (arch) arch 2. (area) area; Arch. 1. (architect) architect 2. (architecture) architecture; bitn (bitumen) bitumen; ctd (cemented*)* cemented; goth (gothic) gothic; l.j. (lap joint) lap joint; l.l. (live load) live load.

And now let's discuss the question what makes a term worth including and the case of specialised terminology selecton. The problem connected with so called 'semantic derived term' is absolutely a real challenge to the authors of branch term dictionaries. We have made some research of these terms taking into consideration principles, criteria and challenges of term selection in specialized lexicography.

Semantic word formation, as a method of creating new terms through the use of existing nominative means of the language in a new naming function, is regarded as a 'constant and inevitable source' of replenishment of terminological vocabulary. As an example, the termsystem 'Names of Construction Machinery' (TNCM) is taken for the analysis. It constitutes one of several terminological subsystems within the field of construction and is characterized by a high density of terminological neologisms reflecting the technological advancement of construction production. Within this term system, this method, according to our observations, plays a secondary role. Terms formed through semantic derivation account for slightly more than one percent of the total number of recorded terms in the TNCM. This fact can be logically explained by the assumption that the semantic method of term formation cannot ensure the linguistic systematicity of terminological series. The paradigmatic organization of the TNCM, in contrast, represents a clearly structured hierarchical system based on the conceptual features underlying its classification.

However, despite such a limited quantitative representation, virtually every term formed by semantic means plays a significant role in the nomination processes in this term system. All terms created through semantic derivation participate in the formation of terminological collocations. Within the analyzed term system, terms formed by this method may be divided into three groups: names of construction machines and mechanisms derived (1) from general literary language units; (2) from terms of other terminological systems; and (3) from terms within the TNCM. The first group of terms, derived from general-language vocabulary, is much more numerous than the others in terms of quantitative composition and demonstrates greater semantic diversity of the base units. According to some contemporary observations, designations that have become terminological units as a result of metaphorical transfer of meaning from commonly used words belong to the most ancient layer of modern industrial termsystems. It should be emphasized that lexical meaning becomes specialized through various types of semantic transfer of the primary meaning, most frequently of a metaphorical nature. Examining the features of metaphorical term formation, researchers note that the objects which a professional language user operates with may evoke some psychological associations due to the similarity between previously acquired and newly acquired knowledge, not only within the sphere of their professional activity [1].

The following groups of commonly used words are use the terms in the TNCM:

(a) names of parts of the human body: leg, head, jaw, tooth, finger, cheek;

(b) names of animals and their body parts: cat, worm, winch, paw, trunk;

(c) names of everyday household objects: tub, drum, fork, bucket, cradle, knife, sieve, scraper, table, ladle, scoop, trolley.

The formation of terms through the semantic method is realized by transferring features from one object to another. This process is based on such types of associative relations as: (1) similarity of external and internal form - tooth, belt, ring, drum, cradle; (2) similarity of functions - jaw, finger, rod, leg, casing; (3) similarity of both form and function – table, spoon, sieve, bucket. It should be noted that there is a certain degree of conventionality in assigning a number of words to one or another group, since these semantic transformations rarely occur in their 'pure form'. This is explained both by the complexity of the interrelations and interweaving of meanings within an individual lexical unit and by the overall complexity of the semantic structure of the lexicon. A considerable number of examples of the use of common-language words as terms in the TNCM belong to the so-called 'international metaphors', as this phenomenon is characteristic of many national languages [2].

Our observations of the phenomenon of semantic reinterpretation of general literary vocabulary in English construction terminology demonstrate that it contains a significant number of terms formed in this way. The following examples may be cited from English construction terminology relating to the names of construction machines and mechanisms*:* arm – рука – стріла (крана), ричаг; body – тіло – кузов (автомобіля); alligator – крокодил – щекова дробилка*;* crane – журавль – підйомний кран*;* crawler – плазун – гусеничний підйомний кран.

It is necessary to emphasize the word-formation of terms created by semantic means. There is a considerable number of terminological collocations formed on their basis, in which they function as the core component. For example, сушильний барабан, сушильний барабан потокового типу; грейферний ківш, самоскидний ківш, ківш із розкривним дном; зачисний башмак (екскаватора), трамбувальний башмак; бічний зуб, розпушувальний зуб, двощелепний ківш, ківш-лопата; бурова ложка.

It is characteristic that the majority of terms formed through metaphorical transfer of meanings from commonly used words, based on similarity of external and internal features, belong to the thematic groups 'names of lifting and transport machines'

and ‘names of earth-moving machines’. The presence of such terms within the oldest thematic groups of the terminological system confirms that the semantic method was one of the earliest word-formation techniques for creating terminological designations.

The adaptation of commonly used words as names of construction mechanization means occurred predominantly at the initial stage of the formation of the TNCM. This is quite understandable, since the process of metaphorization, which results in the creation of terms, is conditioned by ‘concrete-imagery-based thinking’, grounded in the cognition of new phenomena through comparison with what is already known, thereby reflecting the collective experience of the linguistic community.

Apparently, such interparadigmatic relations conditioned by metaphorization are mostly manifested in the general literary language. A term, however, having borrowed from a general-language word only its ‘sound form’, acquires an entirely new, clearly defined terminological meaning, which is revealed in its definition. Thus, if one compares the interpretations of meanings of general-language words and the definitions of terms that have arisen as a result of their metaphorical transfer in general-language dictionaries, semantic connections between the word and the term can be indeed identified.

In other cases, however, when comparing the interpretations of general-language words in standard dictionaries with the definitions of terms in the encyclopedic references, no obvious common features can be identified. Compare: tooth – a bony structure, an organ in the mouth used for grasping, biting, crushing, and chewing food; ripper tooth – consists of a shank, tip, locking device, and sometimes a protective plate with a locking device that protects the shank from wear; cat – a domestic animal with predatory habits; a lifting-and-releasing device of a diesel hammer used for starting and raising the hammer along the guides of the pile driver.

The second group of terms formed through semantic derivation comprises terminological units originating from other terminological systems that have become members of the TNCM as a result of functional transfer of meaning. This group includes such terms as mill, mangle, roller, screen (from agricultural terminology); pistol, weapon, gun, projectile (from military terminology); syringe (from medical terminology). If one traces the evolution of the meanings of these terms, it becomes evident that it proceeded along the line of metaphorical functional transfer of meanings from other terminological systems.

At present, as a result of semantic transformation, these terms have become part of another terminological system, the TNCM, and have acquired new meanings. However, the connection between the earlier and the newly established terminological meanings is not entirely lost. It can be traced in the functional features of the concepts reflected in the definitions of the terms.

The next group of terms formed through semantic derivation includes those that are members of the given terminological system and have undergone a process of semantic specialization - hammer, plane, crowbar. These terms are used exclusively within compound terms, where they function as core components: electric hammer, electromagnetic hammer, pneumatic riveting hammer, pneumatic chipping hammer, manual pneumatic chipping hammer, electric hand plane. The emergence of these terms within the thematic group ‘names of hand machines’ is associated with a functional relationship between the original and the newly assigned designation. It should be noted that the similarity between the referents denoted by these terms can be established only at the functional level.

Characterizing the semantic method of term formation, it is necessary to address the phenomenon of ‘interdisciplinary terminological homonymy’. The above interpretations of general-language words and the definitions of terms make it possible, on the basis of the essential features of interdisciplinary terminological homonymy, to assert the following: (1) terms of the first group function as homonyms in relation to general-language words, since the latter are interpreted and characterized by a certain ‘semantic indeterminacy’, whereas the former are defined through precise definitions with no direct connection with the meaning of the ‘source’ word (paw, cradle, ladle); (2) terms of the second group constitute ‘intersystem homonyms’. This is substantiated by: (a) the presence of two distinct definitions, and (b) their functioning within different terminological systems (syringe – a medical instrument used for administering substances into the human body in medical terminology, and syringe – a manual machine used for sealing joints and applying compounds and pastes to window frame seams in the TNCM).

Conclusions. In conclusion it should be pointed out that the inclusion of terms formed by semantic derivation in a bilingual educational dictionary is essential, as it ensures an accurate representation of the polysemantic nature of language, supports learners’ comprehension of context-dependent meanings, facilitates cross-linguistic equivalence, and reflects the dynamic and usage-based character of modern vocabulary.

There are some key arguments for special attitude to terms of semantic derivation. In construction terminology, semantic derivation leads to systematic polysemy, where common lexical items acquire specialized technical meanings. A bilingual educational dictionary must explicitly represent these meanings to ensure accurate comprehension, prevent negative transfer, and support domain-specific language acquisition.

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Шашкіна Н., Соколова К., Дружиніна Л. Методологічні принципи складання словника: приклад відбору термінологічної лексики

Анотація. Стаття присвячена аналізу лінгвістичних, методичних і лексикографічних аспектів укладання навчальних термінологічних словників, орієнтованих на студентів технічних спеціальностей, зокрема у галузі будівництва. Основною метою викладання іноземних мов у технічних закладах вищої освіти є формування здатності студентів читати й розуміти фахову літературу, що зумовлює важливу роль галузевих термінологічних словників.

Автори визначають ключові труднощі укладання перекладних термінологічних словників з досвіду кафедри іноземних мов Придніпровської державної академії будівництва та архітектури. Відбір термінів здійснюється з урахуванням двох сфер: фіксації (документованого вживання) та функціонування (активного використання), що дозволяє репрезентувати сучасний стан галузевої термінології. Серед основних критеріїв відбору виокремлено статистичні (частотність, поширеність, розподіл) і лінгво-методичні (сполучуваність, валентність, словотвірна активність, багатозначність, тематична релевантність, стилістична функціональність).

Обґрунтовано доцільність урахування структури терміносистеми, яка включає загальногалузеві, ядрові та периферійні одиниці. Термінологічний мінімум навчального словника має охоплювати найуживаніші одиниці, необхідні майбутнім інженерам-будівельникам у професійній діяльності. Отже, ефективне укладання навчального термінологічного словника передбачає науково обґрунтований відбір і систематизацію актуальної галузевої термінології з урахуванням її структури та практичної цінності для майбутніх фахівців.

Ключові слова: термін, навчальний термінологічний словник, галузева термінологія, термінологічні словосполучення, словотвірна модель, семантична деривація.

Дата першого надходження статті до видання: 24.04.2026
Дата прийняття статті до друку після рецензування: 15.05.2026
Дата публікації (оприлюднення) статті: 26.05.2026