XIII Всероссийская научно-практическая конференция
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COMPARATIVE WORD BUILDING ANALYSIS OF RUSSIAN AND ENGLISH ENGINEERING TERMS

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The article is devoted to the comparative word building analysis of Russian and English engineering terms of the term system *"Tailing dams"*. The author intends to reveal general and particular rules in nomination of definite objects of this branch of technical knowledge. For this reason 920 terms of the engineering term system "Tailing dams" (460 Russian terms and 460 English terms) were analyzed. The terms were collected from supplemental and educational literature by a method of complete selection.

Russian engineering terms of *"Tailing dams"* system formed by a syntactic method make 67%; the following productive models are distinguished in order of their productivity: N + Adj (E. translation): *предохранительная берма (safety bench), глухая дамба (blind dam), земляная дамба (earth bank), внешний откос (outer slope)*и т.д.; N + N: *осадка фундамента (foundation settlement), высота дамбы (dam altitude), скорость фильтрации (seepage rate)* и т.д.; Adj + N + N: *упорная призма плотины(dam toe), нижний бьеф плотины (downstream water)* и т. д.; N + N + N: *укрепление (основания) плотины (dam bottom enforcement)* и т.д. Other models are less productive.

By means of material marked affixation, 10% of terms were created. In the Russian engineering term system material marked suffix word formation from terms-verbs (with semantics of subjectified action) (7%) is observed, for example: *переливание (overflow), расслоение (raveling), сползание (crawling), скольжение (sliding), разжижение (liquefaction)*; 3 % of terms are created by means of zero suffix (with semantics of subjectified action), for example – *пролом (breach), сдвиг (shearing), забор (intake), прокол (puncture).* 5 % of terms were created by means of stem composition (units, denoting action directed to definite object) – *дамбостроение (dambuilding), шламохранилище (slurry storage), водозабор (water intake,) etc*.

Semantic method (11%) is presented by terminologisation (9 %) and transterminologisation (2%). Because of terminologisation such terms as *уголь (coal), песок (sand), почва (soil), золото (gold), серебро (silver)* were created.

XIII Всероссийская научно-практическая конференция
молодых ученых «РОССИЯ МОЛОДАЯ»
094907.2 20-23 апреля 2021 г.

During the process of trasterminologisation terms were borrowed from such term system as *"Mining", "Mineral deposits", "Mineral processing"*, as these term systems are adjoined with dambuilding: *шахта (mine), подпорка (tree), угольная суспензия (coal slurry), пустая порода (draw rock), хвосты (tailings), дебрис (debris), раствор (solution), скрап (scraps), шлам (slime), пульпа (pulp), щебень (break stone)* etc.

Linguistic borrowing (7 % of terms) was made from classical and other languages: Greek – *диафрагма плотины (core wall), барит (barite);* Latin – *суффозия (erosion), противоэрозийная плотина (soil saved dam), дренажный коллектор (collector ditch), седиментация (sedimentation);* French – *боксит (bauxite), флюорит (fluorite), помпа (pump);* Dutch – *дамба (dam);* Chinese – *каолин (kaolin);* Italian – *габионная дамба (busket dam), каркас (carcass);* German – *буна (dam dike), шламовая плотина (slime dam).*

English terms of the engineering term system *"Tailing dams"* are formed by means of a syntactic method (60%). The most productive models in order to their productivity are: N + N: *refuse dam*; Adj + N: *low dam, blind dam*; N + N + N: *coal slurry pipeline*; N + P + N: *soil saved dam, water retaining dam* etc. Other models are less productive.

The great number of terms (11%) made by affixation are suffix formations: *breakage, choking, fracture, settlement;* 1 % of terms are prefix formations: *upstream, downstream, outlet, intake, inflow;* 3 % of terms are formed by stem composition: *freeboard, borehole, pipeline, standpipe, bitstone, potash.*

Semantic method (17%) of term formation is presented by terminologisation (12 %) and transterminologisation (5 %).

The number of terms formed by terminologisation testifies that a person prefers to use already known language forms in nomination of social realm objects, but not to create principally new forms, as the old ones save definite concept features and they only become more complicated while being specially thought over: *slip, slide, hole, site, body, head.*

Terms formed by transterminologisation, were borrowed from such term systems as *"Mining", "Mineral deposits", "Mineral processing"*, for example: *shaft, coal, tree, waste rock, kaolin, copper, gold, slime, slurry, tails, fill.*

A part of terms (8%) was borrowed from classical languages, for example: from Greek – *barite*, French – *vermiculite,* Chinese – *kaolin,* Latin – *fluorit,* etc.

Terms created by syntactic method are the dominated type of term naming units in the engineering Russian and English term system *"Tailing dams"*: they consist of 67% and 60% correspondingly from all numbers of terms, i.e. this method of term formation doesn't show great differences in the analyzed term systems.

Terms which are few in numbers were created by a semantic method. They make 11% of terms in the Russian term system and 17% in the English term system. In the compared term systems terminologisation process is dominated, it proves that a familiar term form is preferable for nomination of new technical objects. Special knowledge structure always stands for a term; this structure demonstrates

XIII Всероссийская научно-практическая конференция
молодых ученых **«РОССИЯ МОЛОДАЯ»**
20-23 апреля 2021 г.

094907.3

the lexis system character more racy in semantic regard. Less number of terms created by transterminologisation (in the Russian term system – 2% and in the English one – 5%) characterizes the level of term systems insularity.

Making conclusions of comparative term building analysis of Russian and English term systems, it is possible to distinguish several peculiarities of the analyzed naming units.

The *first peculiarity* is prevalence of a syntactic method in the Russian and English term systems *"Tailing dams"*, it forms 67 % and 60 % terms correspondingly.

Percentage of engineering Russian and English term systems *"Tailing dams"*, formed by different methods

Methods of Term Formation		Russian Terms	English Terms
1.	Syntactic	67 %	60 %
2.	Affixal	10 %	12 %
2.1.	Suffixal	7 %	11 %
2.2.	Prefixal	–	1 %
2.3.	Zero suffix	3 %	–
3.	Stem composition	5 %	3 %
4.	Semantic method	11 %	17 %
4.1.	Terminilogisation	9 %	12 %
4.2.	Transterminologisation	2 %	5 %
5.	Linguistic borrowing	7 %	8 %

The *second peculiarity* is in diverse demonstration of an affix term formation method: in the English term system 11% of terms have suffixes, but in the Russian one there are 7% of such formations; in the English term system 1% of terms is formed by prefixes, but in the Russian term system there are no such terms. This shows that in the English term system affixes transfer information by parts and focus attention on different emphasis of describing phenomenon, i.e. a term concept structure is formed by a definite way. English terms formed by an affix method turned to be more mobile and satisfied more the demands of communication (discourse demands).

The *third peculiarity* is in stem composition: in the English term system 3% and in the Russian one 5% of terms are formed by this method.

The *fourth peculiarity* is the following. In both term systems there are terms formed by a semantic method: in the English term system it makes 17% and in the Russian one only 11%. A semantic method is presented by terminologisation and transterminologisation, by means of these methods 9% and 2% of terms in the Russian term system were created, and 12% and 5% of terms in the English one. Therefore, these methods of term formation implicate the existence of special knowledge structure which stands for the terms. This knowledge structure is the result of personal systematic cognitive activity. This activity integrates several types of operations and conceptualization of reality, transforming into knowledge

094907.4

XIII Всероссийская научно-практическая конференция
молодых ученых **«РОССИЯ МОЛОДАЯ»**
20-23 апреля 2021 г.

about a definite world fragment (encyclopedic, general scientific, special knowledge) reflecting in language forms and their representations to process, store and transfer information.

Therefore, the Russian and English engineering term systems have identical methods of terms formation (syntactical, affix, stem composition, semantics, and linguistic borrowing). The word building analysis of the Russian and English engineering term systems leads to the conclusion that term formation methods are a complex mechanism of term formation; the form of a term shows definite cognitive regularities; the number of cognitive mechanisms and features stand for each element of a form. This very process, as a result of people's cognitive activity is integration of several types of actions and knowledge: conceptualization of reality, forming into knowledge about a definite world fragment; forming of definite mental forms and ways of their reflection in person's mind; knowledge of language forms and their representation, and also knowledge of language units operation to process, store and transmit information.

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