

TERMINOLOGY STUDIES. ТЕРМІНОЗНАВСТВО

УДК 81'32: 81'33: 81 (811.111)

<https://doi.org/10.31548/philolog2021.01.093>

SIMPLIFIED MONOMIALS IN ENGLISH FOR AUDIT AND ACCOUNTING

O. I. CHAIKA, PhD in Philology, Associate Professor,
National University of Life and Environmental Sciences of Ukraine

E-mail: oxana.chaika@yahoo.es

<https://orcid.org/0000-0002-4317-9456>

Abstract. *The present paper is work in progress and closely relates to the earlier published works on Ukrainian and English monomials and polynomials in the areas of audit and accounting, law, business. Both monomials and polynomials perform a role of substitutes of the term in linguistics when applicable to terminologies, or languages for specific purposes (LSPs). The current paper looks into the investigation of simplified monomials in English for Audit and Accounting (A&A) according to the morphology class of the kernel term in the monomial structure, on the one hand, and on the other, how the relevantly retrieved data may help trace the trend in monomial coinage and usage in English for A&A, respectively. The simplified monomial in English for A&A stands for a two-term, or bi-term set cluster, which is a basic unit of syntax, represented by two terms (components / constituents / elements) semantically and grammatically connected in the monomial structure.*

The introduction will start with the aim, scope of the research and objectives. A brief overview of the terms 'monomial' and 'simplified monomial' integrates into Literature Review. The choice of the study material and methodology will lead to Results and Discussion. The latter will present the main findings as based on the classifications adopted for the simplified monomials in English for Audit and Accounting. One of the classifications describes the simplified monomial according to the internal monomial structure. The simplified monomial types are distinguished according to the morphological class of the head (kernel) term in the simplified monomial in English for Audit and Accounting. Conclusion and References will enclose the findings and determine perspective ways of research in future.

Key words: *Monomial, simplified monomial, terminology, language for specific purposes (LSP), English for Audit and Accounting.*

Introduction and literature review. 'La langue' and 'parole', or language and speech, on the one hand, and a game of chess, on the other, as once introduced by Ferdinand de Saussure, are still enjoying their pivotal rise these days. Dependency grammar (DG), constituency grammar (CG), or phrase structure grammar, algebraic syntax, link grammar, universal dependencies, etc. keep solid ground for more researches to be carried out in relation to the structure of phrases and dependency relations. Unitizing (Norman, 1986) and syntactic analysis trees (Ernest, 1987), algebraic substitutions and comparison methods (Fillooy, Ceballos and Solares, 2008), algebraic lexicon grammar (Bueriis, 2019) are also getting more and more recognized for software development and artificial intelligence, in terms of defining syntax of algebra and that in linguistics. Similarly to a chess game in which no move can be made without the set rules established prior to the game, language in the form of speech may not exist without language that is called 'la langue' by Saussure. Thus, digital technologies to enable linguistic data mining,

automated translation of high quality and accuracy may hardly skyrocket unless there is well-prepared and thoroughly verified scientifically proven tarmac. Consequently, the structural approach to analyze terminologies may add its specific value to contemporary science and data growth. Moreover, we agree with Darchuk (2019), who in her investigation results published in *Ukrainian Linguistics* underlines the importance of an automatic syntactic analysis (ASA) for compilation of dictionaries that will contain models of multicomponent complex sentences. That appears significant to study "the features of the linear structure of Ukrainian text" (Darchuk, 2019: 117). Moving downwards, to the levels of sentence and phrase, we find it relevant to our research connected with the structure of monomials and simplified monomials, in particular, in English for Audit and Accounting. Moreover, the interest in structure of phrases has been constantly under study as well as in classifications of phrases. Ehrich (2002) investigates the verbal nature of certain nominal entities, Embick (2010) looks at localism vs.

globalism in morphology and phonology and Alexiadou et al. (2013) unveil realization of external arguments in nominalizations. Thus, the current research findings in their scope combine looks into (i) the nature of such nominal entities as bi-term clusters in English for A&A, (ii) the analysis of local and global coinage of patterns in morphology, and (iii) classification of simplified monomials in English for A&A according to the internal monomial structure. The set objectives break into a number of tasks. They are: 1) to give an overview of the monomial / simplified monomial in English for A&A under the study, 2) to furnish the theoretical part of the research with two-term monomials in English for A&A, 3) to classify simplified (two-term) monomials in English for A&A according to the morphological class of the terms in the monomial structure.

This paper aims to connect syntax and term studies via monomials, which represent terms and/or term clusters in languages for specific purposes (LSP), or terminologies, e.g. English for Audit and Accounting, Portuguese for Bookkeeping, Spanish for Risk Management, etc. Monomials, in our understanding, claim to fill in a specific niche between a 'term' and a 'phrase'. On the one hand, a simplified monomial is a mono-term or a bi-term (two-component term cluster), which consists of a conventional term or a phrase. The mentioned phrase as a simplified monomial may include two professional terms and/or a professional term and a generally used lexeme in a specific language, and/or a term cluster in an LSP exclusively, however, composed of language lexemes that are unconventionally seen as a fixed language string for that domain of knowledge in a relevant language. On the other hand, monomials are considered minimal / basic syntactic structures in terminologies, which elements are grammatically, semantically and logically connected. In most cases, they are inseparable and irreversible under the arrangement of the head term (kernel) and complements / adjuncts. Moreover, professional communities or even lay-people take such monomials as a single logical unit of perception. The reason for the name of 'monomial' links to a wide range of similarities found between a monomial as a linguistic term expression and an algebraic expression in mathematics. For more about naming ground it may be worth reading *Monomial Variables in English Audit Terminology* (2019), *Binomials in English Audit Terminology* (2019), *Monomials in English for Law* (2020) and *Structure of English Business Monomials* (2019), in particular [3 - 6].

Given the above, this work in progress will classify the simplified monomials in English for Audit and Accounting as basic set bi-term clusters in an A&A terminology following the earlier presentation of the approach [7 - 9].

Study material and methods. The examples of simplified monomials in English for A&A, taken from the definitions of terms in Glossary Chapter of *the Handbook of International Quality Control, Auditing, Review, Other Assurance, and Related Services Pronouncements* (Volume I) validated by the International Auditing and Assurance Standards Board (IAASB) make the study material of the current research. The methods applied are use of the English language corpora and internet resources, linguistic field research connected with data collection and grammar-oriented component analysis, distributive method followed by the descriptive method.

Discussion and results. The simplified monomials in English for A&A are broadly represented across the professional field. Such bi-term monomials, or bi-terms in short, become critically significant to the research given the frequency ratio of their usage in terminology as well as patterns of coinage in the English language. Among the most frequently used bi-terms in English for A&A the following bi-term patterns prevail: *Management bias* (IAASB, 25), *accounting estimate* (IAASB, 10), *fair value* (IAASB, 10), *require estimation* (IAASB, 10), *tests of details* (IAASB, 21), *incorporated therein* (IAASB, 21), *procedures performed* (IAASB, 21), *further procedures* (IAASB, 21), *often expressed* (IAASB, 22), *at least sufficient* (IAASB, 25), etc. The examples of simplified monomials provided are innumerate in English for A&A as such relate to their patterns of coinage. However, once parsed and analysed, it is obvious that the syntactic relations of subordination help identify and distinguish such simplified monomials according to their internal structure. Moreover, the same approach when applied to simplified monomials in other languages within the same domain of knowledge – audit and accounting, displays an array of patterns similar to those in English for A&A. This speaks not only of application in local geographies and terminology, but also about the global trend in monomial coinage. Largely, the Germanic and Slavic languages deem to follow and share the similar coinage patterns in the area of audit and accounting, subject to the findings published in Chaika (2021).

Noticeably, it is not always that the coinage patterns of simplified monomials in English for A&A, which look similar and may be expected to fall under the same group, would do so. For instance, it is demonstrative to look at the two English bi-terms *procedures performed* (IAASB, 21), *further procedures* (IAASB, 21).

According to the classification based on the internal structure of the simplified monomials in English for A&A, associated with that of the kernel phrases and kernel-free phrases as described in Ivanova et al. (1981), we distinguish the similar

two groups – kernel and kernel-free bi-term monomials / polynomials. The kernel bi-term monomials are under focus in this paper.

Thus, kernel monomials as bi-terms are basic syntactic structures grammatically organized in a way that one term of the simplified monomial dominated the other. It means that this term is not subordinated to any other term in the structure of the simplified monomial in English for A&A. As it leads, such term of the monomial is the kernel of the simplified monomial in English for A&A.

Following the traditional approach to determine dependencies in phrase structure grammar, constituency grammar, dependency grammar and so, the direction of dependencies plays a crucial role for the classification. Morphologically, head terms that are kernels of the simplified monomial structure in English for A&A can be expressed by different parts of speech. The distribution of terms in the simplified monomial mainly occurs with Verb (V), Noun (N) and Adjective (A) of the types Verb Phrase (VP), Noun Phrase (NP) and Adjective Phrase (AP), correspondingly.

In dependency relations, or kernel monomials in English for A&A, we distinguish two terms, the leading term and the dependent. For the graph purpose, 'A' stands for the kernel of the simplified monomial in English for A&A and 'B' refers to the dependent term in the monomial structure. Therefore, with the dependency relations in the English bi-term in the area of audit and accounting, the graphic arrangement of structure (either horizontally or vertically) in Figure 1 forms the below:

Fig. 1. Dependency relations in the simplified monomial

A, or $A \rightarrow B$, or $B \leftarrow A$

B

In both the representations above – horizontal and vertical, it is proper to speak about the properties of the dependency relations as follows:

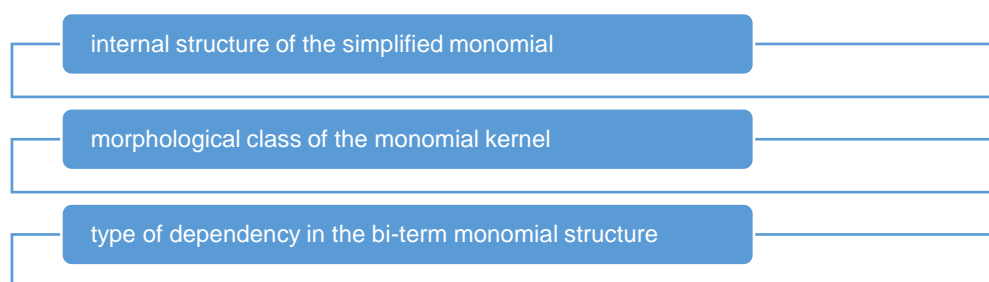
- (i) A is the kernel and B is its dependent,
- (ii) A governs B,
- (iii) B depends on A, or B is dependent of A.

In this research, it is very much important to agree which direction of the relation that exists between A and B is under investigation. That said, when we look at the $A \rightarrow B$ dependency, the kernel monomial acquires properties of the progressive kernel phrase. When the dependency is represented with the $B \leftarrow A$ relation, it is the regressive kernel phrase.

Therefore, getting back to the two simplified monomials in English for A&A *procedures performed* (IAASB, 21) and *further procedures* (IAASB, 21), this paper studies the latter, i.e. the regressive type of the simplified monomials in English for A&A.

Consequently, the findings come to the bi-term monomial classification according to the internal structure of the simplified monomial, the morphological class of the monomial kernel and the regressive type of dependency in the bi-term monomial structure.

Fig. 2. Criteria for the classification of simplified monomials in English for A&A



To be more specific and exact, the simplified monomials in English for A&A break into the following groups:

1) The substantive, or nounal bi-term monomial group: *listed entity* (IAASB, 25), *an adverse opinion* (IAASB, 25), *ethical standards* (IAASB, 31), *critical assessment* (IAASB, 31), *entity's emissions* (IAASB, 32), *emissions reductions* (IAASB, 32), *review engagement* (IAASB, 35), *significant influence* (IAASB, 33), *smaller entity* (IAASB, 38), *written statement* (IAASB, 40);

2) The verbal bi-term monomial group: *to assist the entity* (IAASB, 25), *to belong to a network* (IAASB, 27), *to exceed materiality* (IAASB, 28), *to necessarily display* (IAASB, 38), *to fully respond* (IAASB, 27), *to obtain assurance* (IAASB, 25), *to include the risk* (IAASB, 20), *to perform procedures* (IAASB, 19);

3) The adjectival bi-term monomial group: *appropriately low* (IAASB, 28), *less effective* (IAASB, 36), *at least sufficient* (IAASB, 25);

4) The adverbial bi-term monomial group: *much fairly* (IAASB, 25);

5) The gerundial bi-term monomial group: *financial reporting* (IAASB, 36), *statistical sampling* (IAASB, 38), *relevant training* (IAASB, 31);

6) The participle bi-term monomial group: *expressly permitted* (IAASB, 21, 27), *materially misstated* (IAASB, 19).

At large, the nounal bi-term monomial group in English for A&A features the noun kernel in the NP, which can be expressed by a common noun in singular or plural, e.g. *listed entity* and *ethical standards*. Next, the kernel may be modified by another noun in the singular form – *review engagement*, another noun in the plural form – *emissions reductions*, another noun in the possessive case – *entity's emissions*, an adjective – *an adverse opinion*, a past participle – *a listed entity*, an adjective in the comparative degree – *smaller entity* etc.

The verbal bi-term monomial group in English for A&A includes simplified monomials, which can mainly be of two kinds:

(i) The kernel of the simplified monomial is expressed by the verb and the dependent term is expressed by the noun – *to include the risk*, *to perform procedures*;

(ii) The kernel of the simplified monomial is expressed by the verb and the dependent term is expressed by the adverb – *to necessarily display*, *to fully respond*.

The participle bi-term monomial group features the structure of the simplified monomial in English for A&A, which is characterized by the kernel expressed by the participle and the dependent term can be expressed by the adverb – *materially misstated*.

The adjectival bi-term monomial group and the gerundial bi-term monomial group are less productive as opposed to the above-mentioned groups.

Finally, the adverbial bi-term monomial group under the study appears the least represented.

Conclusion. The findings of the research illustrate a huge variability of simplified monomials in English for Audit and Accounting. According to the nature of nominal entities in the professional domain, such are presented under the class of

References

1. Alexiadou, A., Iordăchioaia, G., Cano, M. et al. (2013). The realization of external arguments in nominalizations. *J Comp German Linguistics* 16, p. 73–95. <https://doi.org/10.1007/s10828-014-9062-x>.

2. Bueriis, G. de, Langella, A. M. (2019). Algebraic Lexicon Grammar. *International Journal of Linguistics*, Vol. 11, No. 3, p. 21-42. DOI:10.5296/ijl.v11i3.14766.

3. Chaika, O. (2019). Monomial Variables in English Audit Terminology, *International Journal of Philology*, Vol. 10, no 1, Kyiv, NUBIP, pp. 100-

monomials or simplified monomials, to be exact. The simplified monomial under this paper is a set bi-term cluster in the English terminology of audit(ing) and accounting, in which its components / elements are called terms similarly to terms in an algebraic expression. The arrangement of the two terms in the monomial is irreversible and may not be subject to transformations as in generative grammar (Chomsky). Otherwise the replacement of terms in the structure would result in semantic shift, which contextually would mislead.

The further analysis of the bi-term monomial structure in the English language demonstrates a designated way to a simplified monomial coinage. That approach may hardly be seen unique and exclusive as to the English-speaking geographies. It may be adopted much wider and broaden more globally as appropriate to the monomial coinage in other languages, for instance, Ukrainian.

In the end, the understanding of the simplified monomial structure in English for Audit and Accounting helps underpin the monomial classification, which is based on such criteria as the internal bi-term monomial structure, morphological class of the bi-term monomial kernel and the type of dependency between terms in the bi-term monomial. In addition, the adoption of the said classification enables to identify the following groups of the simplified monomials in English for Audit and Accounting. The most visible types of bi-term monomial groups under the research findings are substantive, or nounal, group and the others are verbal, participle, gerundial, adjectival, adverbial. The relevant groups reflect the descending scale in relation to the density and frequency of usage in the English audit and accountancy corpora.

Given the vast canvas of the data analysed and to be analysed, more work is going to be carried out. The further papers will elaborate more precise and accurate classifications, provide deeper plunge into the analysis work and help broaden the picture in the light of comparative and contrastive studies with the material sampled from other languages.

108. DOI: <http://dx.doi.org/10.31548/philolog> 2019.01.100

4. Chaika, O. (2019). Binomials in English Audit Terminology. *International Journal of Philology*, Vol. 10, no 3, Kyiv, NUBIP, pp. 68-73. DOI: <http://dx.doi.org/10.31548/philolog2019.03.068>

5. Chaika, O., Zakatei, Yu. (2019). Monomials in English for Law, *International Journal of Philology*, Vol. 2 (14), pp. 114-121. https://library.udpu.edu.ua/library_files/filologichni_y-chacopys/2019/2/17.pdf

6. Chaika, O., Bambura, A. (2019). Structure of English Business Monomials, *Linguistic Bulletin*, no

27, Cherkasy, pp. 69-76 (in Ukrainian). <https://www.researchgate.net/publication/339174579>

7. Chaika, O. (2020). Structure of Simplified Monomials in Ukrainian for Audit and Accounting. In: Scientific journal. «International Journal of Philology». Kyiv : «MILENIUM». Vol. 11. No. 4. P.108-112.

8. Chaika (Čajka), O. (2020). Structure of Bi-Term Monomials in English for Audit and Accounting. In: Euromentor Journal. Volume XI, No. 4. P. 158-174. <http://euromentor.ucdc.ro/EUROMENTORdecember2020.pdf>

9. Chaika, O. (2020). Monomials as Set Term Clusters in Terminologies. In: Scientific journal. «International Journal of Philology». Kyiv: «MILENIUM», Vol. 11. No. 3. P. 96-99. <http://journals.nubip.edu.ua/index.php/Filol/article/view/14649>

10. Chaika, O. (2021). Nounal Simplified Monomials in Ukrainian for Audit and Accounting. In: International Journal of Social Science and Human Research, Vol. 4 (2). ISSN (print): 2644-0679, ISSN (online): 2644-0695. P. 578-583.

11. Darchuk, N. (2019). Compiling of the Electronic Dictionary of Models of the Ukrainian Language Multicomponent Complex Sentences. *Ukrajinske Movoznavstvo (Ukrainian Linguistics)*, no 1 (49), p.117-129. [https://doi.org/10.17721/um/49\(2019\).117-129](https://doi.org/10.17721/um/49(2019).117-129).

12. Ehrich, V. (2002). On the verbal nature of certain nominal entities. In: *More than words. A Festschrift for Dieter Wunderlich*, ed. I. Kaufmann and B. Stiebels, 69–89. Berlin: Akademie-Verlag.

13. Embick, D. (2010). *Localism vs. globalism in morphology and phonology*. Cambridge, MA: MIT Press.

14. Ernest, P. (1987). A model of the

cognitive meaning of mathematical expressions. *British Journal of Educational Psychology*, 57, p. 343-370.

15. Filloy, E., Rojano, T., Solares, A. (2008). Cognitive tendencies and generating meaning in the acquisition of algebraic substitution and comparison methods. *Proceedings of the Joint Meeting of the PME 32 and PME-NA XXX*, 3, pp. 9-16. <https://www.researchgate.net/publication/273742353>

16. Ivanova, I., Burlakova, V., Pochepstov, G. (1981). *The theoretical grammar of modern English (Teoretičeskaja grammatika sovremennogo anglijskogo jazyka)*. Moscow, Vysšaja škola. 295p.

17. Gumanová, G. (2016). An Analysis of Term-Formation Processes as Employed in English and Slovak Versions of the EU Texts in the Concept of Equivalence (A Case Study). <https://www.researchgate.net/publication/313384066>.

18. Norman, F. A. (1986). Students' unitizing of variable complexes in algebraic and graphical contexts. In: G. Lappan & R. Even (Eds.), *Proceedings of the Eighth Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*. Pp. 102-107.

19. Zhao, M.-F., Zimmer, H.D., Zhou, X., Fu, X. (2016). Enactment supports unitisation of action components and enhances the contribution of familiarity to associative recognition. *Journal of Cognitive Psychology*, DOI:10.1080/20445911.2016.1229321.

20. *International Audit and Assurance Standards, Volume I* published by the IAASB – International Audit and Assurance Standards Board. = IAASB as referred to in the publication.

МОНОМИ СПРОЩЕНОГО ТИПУ В АНГЛІЙСЬКІЙ ТЕРМІНОСИСТЕМІ З ОБЛІКУ Й АУДИТУ О. І. Чайка

Анотація. Стаття є фрагментом роботи й результатів, отриманих у ході дослідження. Відповідно, матеріал цієї розвідки тісно пов'язується із раніше опублікованими працями, у яких предметом дослідження виступали відношення між членами виразу / компонентами термінологічних одиниць у певній мові та вузько-окресленої термінології. Опираючись на подібність структури й відношень між елементами виразу в алгебрі та термінів, запропоновано посылатися на термінологічні кластери (конструкти, сталі сполучення і т.д.) в українській, англійській і португальській мовах у сферах обліку й аудиту, права, бізнесу як мономи (мономіали) та поліноми (поліміали). І мономи, і поліноми виконують роль терміна в лінгвістиці, а в цілях досліджень термінологічних баз даних, або мов особливого призначення, чи фахових мов (LSP). Стаття має на меті дослідити структуру спрощених мономів англійської мови для обліку й аудиту відповідно до морфологічного класу стрижневого терміна в мономній структурі. Спрощений моном в англійській мові у сфері аудиту та бухгалтерського обліку позначає термінологічний кластер, у склад якого входять два елементи (компоненти), що утворюють цілісну оболонку з точки зору логічного й семантичного поєднання й утілюються у мінімальну синтаксичну одиницю у визначеній термінології. Відповідно, такі два компоненти семантично та граматично пов'язані між собою в мономній структурі.

Ключові слова: моном (мономіал), поліном, спрощений моном (мономіал), фахова мова, термінологія, англійська мова для обліку й аудиту.