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**TEACHING WORD-FORMATION MODELS OF THE LEXICAL  
FOUNDATIONS OF THE GERMAN LANGUAGE**

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**Abstract**

The article is devoted to the description of the research of word-formation models in the process of teaching foreign languages. The article discusses the issue of the organization of teaching word-formation minimum and word-formation analysis of lexical foundations of the German language. The article identifies 650 micromodels of lexical foundations that are relevant for the vocabulary of the modern German language. It was revealed that about 250 of the 650 identified micromodels are of the scientific and technical style. The vocabulary of the modern German language is built on thirteen basic derivational models of lexical foundations. The results of the study allow us to conclude that at the 3rd stage of teaching the German language at the university, it is necessary to plan the repetition of the model of complex words, as well as the micromodel of the most common suffix and prefix words. It is recommended to use the structural-semantic model as a unit of selection of the word-formation minimum for language universities, which has several advantages. Based on the tables offered in the text, it is possible to rationalize the process of teaching the word-formation minimum. All the above makes it possible to believe that the proposed word-formation minimum will contribute to the rationalization of the explanation and the assimilation of the lexical minimum for mastering the word-formation analysis in order to understand the derived words and their meaning when introducing lexical units.

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*Keywords:* Derivational model, micromodel, classification, derivative words, compounding, relevant



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## 1. Introduction

Research methods are usually determined by the specifics of both theoretical and practical material, as well as the purpose and objectives of the study. This article sets the tasks to:

1. Give an adequate definition of the concept of word-formation minimum;
2. Formulate the basic principle of the selection of word-formation minimum;
3. Determine the main methodological recommendations

Our research uses methods of linguistic description, as well as methods of continuous sampling and quantitative analysis. The article also provides guidelines for the organization of teaching the word-formation minimum in the process of learning a foreign language at school and university.

According to Belotelova (1983), word-formation minimum is understood as a set of word-formation models of the modern language, which must be mastered by a student in order to understand complex and derivative words when reading literature in his specialty. The word-formation model is interpreted by her as “a stable structure of the lexical basis of a word”, which has a generalized lexical-categorical content and is capable of being filled with different lexical material.

## 2. Problem Statement

The subject of our research is the specificity of word-formation models in the modern German language, considering the morphological possibilities and development trends of the language system.

The vocabulary of the modern German language is built on thirteen basic derivational models of lexical foundations. However, when selecting and teaching a word-formation minimum, it is advised to reduce 13 models for educational purposes by combining several models. For example, the model of stems with residual elements is referred to the model of root words.

The modified model and the model with an invariable root are combined into one model, namely, a model of affix-free-derived words – with an invariable root and a modified root.

This is followed by the models of prefix words (- with an unchanged root, – with a changed root), models of suffix words (- with an unchanged root, – with a changed root), a model of suffix-prefix words (- with an unchanged root, – with a changed root).

The model of a definite word composition and an indefinite word composition, according to well-known linguists, cannot be reduced to one model of complex words.

## 3. Research Questions

The object of the research is word-formation models characteristic of the modern German language at the current stage of its development. In the German language program for higher educational institutions, due attention is paid to teaching the word-formation minimum, which for the first time was singled out in a special subsection along with the lexical and grammatical minimum.

For example, at the 1st and 2nd stages, students are invited to master the basic derivational morphemes and models of derivatives and complex words, but only lists of micromodels of lexical bases are given.

For the 3rd stage of training, the program quite correctly recommends teaching those word-formation morphemes and models that are characteristic of the sublanguage of the studied specialty. It is recommended to select their list for departments. The solution to this issue will require further research.

#### 4. Purpose of the Study

The purpose of this research is to study word-formation models of the modern German language. In accordance with the set goal, the following theoretical and practical tasks are solved:

- description the lexical composition of the modern German language;
- adequate definition of the concept of word-formation minimum;
- formulation of the basic principle of the selection of the word-formation minimum;
- determining the basic methodological recommendations for the organization of teaching the word-formation minimum in a foreign language course at school and university.

#### 5. Research Methods

Our research uses methods of linguistic description, as well as methods of continuous sampling and quantitative analysis. The article also provides guidelines for the organization of teaching the word-formation minimum in the process of learning a foreign language at school and university.

We use a structural-semantic model is used for the unit of selection of the word-formation minimum for language universities, which has several advantages. Its use makes it possible to select specific semantic variants of derivational units within the framework of a general structural type.

To illustrate the structural-semantic models, we provide a table of verbal prefix and semi-prefix structural-semantic models, which presents 20 models of prefix verbs. For each of the 20 models, several structural-semantic models were identified. For example, the model with the an-(an + V) prefix had 6 values, respectively 6 structural-semantic models, the ab-(ab + V) model had 8 values etc.

#### 6. Findings

A review of the literature on the study of word-formation models of the German language shows that such studies are being conducted recently. Word formation issues are at the epicenter of attention as domestic (Abdukadyrova, 2009; Antropova, 2006; Astvatsaryan, 1992; Belotelova, 1983; Galskova, 2004; Stepanova, 1984; Velmyradova, 2018) and foreign linguists (Barz, 1995; Fleischer, 1995; Schmidt, 1987).

According to Belotelova (1983), the word-formation minimum is understood as

*a certain set of word-formation models of the modern language, which must be mastered by the student in order to understand complex and derived words when reading literature in his specialty. The word-formation model is interpreted by her as a stable structure of the lexical basis of a word, possessing a generalized lexical-categorical content and capable of being filled with different lexical material. (p. 54)*

Given the fact that the vocabulary of the modern German language is built on thirteen basic derivational models of lexical foundations, 13 models are considered for educational purposes by combining several models.

Models of stems with residual elements are referred to the model of root words.

The modified model and the model with an invariable root are combined into one model, namely, a model of affix-free-derived words – with an invariable root and a modified root.

This is followed by the models of prefix words (– with an unchanged root, – with a changed root), models of suffix words (– with an unchanged root, – with a changed root), a model of suffix-prefix words (– with an unchanged root, – with a changed root).

According to well-known linguists, the model of a definite word composition and an indefinite word composition cannot be reduced to one model of complex words.

The selection of the word-formation minimum is based on the psychological and methodological principles of motivation, productivity and exemplarity.

The article identifies 650 micromodels of lexical foundations that are relevant for the vocabulary of the modern German language. It was revealed that about 250 of the 650 identified micromodels are of the scientific and technical style.

Based on the above principles, Antropova (2006) in her work “Word formation of German colloquial vocabulary” identifies 140 most common (47 micromodels of verbs, 41 micromodels of nouns, 52 micromodels of adjectives and adverbs), which were used as the basis for lists of micromodels, given in the program on the German language for the language specialties of higher educational institutions.

In this case, it should be noted that - even before Antropova - Belotelova (1983) in her study “Selection of the word-formation minimum of the German language for language universities” tried to solve the problems of teaching the word-formation minimum and word-formation analysis. a complete understanding of the relevant structural types of derived words, as well as the structure of the vocabulary of the language.

However, having identified the most common micromodels, Belotelova (1983) does not classify them according to the seven basic models of lexical foundations proposed by her. As a result, the basic models are mentioned neither in the process of selecting the word-formation minimum, nor in the process of teaching the word-formation minimum and word-formation analysis. Trainees are not informed which models they need to learn or which model includes this or that micromodel.

The micromodel turned out to be accepted both as a unit of selection of the word-formation minimum, and as a unit of training in the word-formation minimum and word-formation analysis.

Undoubtedly, the absence of basic models of lexical foundations in the word-formation minimum makes it difficult for both learning and mastering the skills of word-formation analysis; knowledge of only micro-models cannot develop a holistic idea of the laws of word formation, of consistency and harmony of the entire vocabulary of the studied foreign language.

Galskova (2004), in her numerous methodological works, clarifies the list of word-formation models given in the program on the methodology of teaching foreign languages for language universities. She identified twenty-five models that were already recorded in the lists of micro-models by Belotelova (1983).

She refers to the most common models of complex words:

- 1) SN + SN: noun + noun
- 2) SN + s + SN: noun + s + noun
- 3) SAj + SN: adjective + noun
- 4) SV + SN: verb + noun
- 5) SN + e + SN: noun + e + noun
- 6) SN + en + SN: noun + en + noun
- 7) SAdv + SN: adverb + noun
- 8) SV + e + SN: verb + e + noun
- 9) SN + SAdj. Noun + adverb

According to the data of the conducted statistical study, according to these models, the structural-semantic model is used as the unit of selection of the word-formation minimum for language universals, which has a number of advantages. Its use makes it possible to select specific semantic variants of derivational units within the framework of a general structural type.

To illustrate the structural-semantic models, we propose a table of verbal prefix and semi-prefix structural-semantic model including 20 models of prefix verbs. Several structural-semantic models were identified for each of the 20 models. For example, the model with the an- (an + V) prefix had 6 values, respectively 6 structural-semantic models, the ab- (ab + V) model had 8 values etc.

Each of the 20 models and each of the 90 structural-semantic models are nothing more than micro-models, for all 90 structural-semantic models of prefix verbs identified by Astvatsaryan (1992) and Stepanova (1984), are reduced to one model of prefix verbs.

In this sense, the model carries information about the structure of the verb, while the structural-semantic ones inform about the semantics of each individual verb, about the semantics of the prefix. The delineation of the model and the structural-semantic model, proposed by the author, is nothing more than the delineation of the models and their constituent micromodels, or the delineation of the main models and the models of the first, second, etc. degree.

For the unit of selection of the word-formation minimum for language universals, a structural-semantic model is used, which has several advantages. Its use makes it possible to select specific semantic variants of derivational units within the framework of a general structural type.

To illustrate the structural-semantic models, we propose a table of verbal prefix and semi-prefix structural-semantic models including presents 20 models of prefix verbs. Several structural-semantic models were identified for each of the 20 models. For example, the model with the an- (an + V) prefix had 6 values, respectively 6 structural-semantic models, the ab- (ab + V) model had 8 values etc.

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Productive stems can be not only simple (root), but also derivatives (suffix, prefix, non-affix derivative, complex). Derived stems acting as generators can have an unchanged and modified root.

When teaching a foreign language at a university, it seems to us expedient to group 13 basic models of the lexical foundations of words in the modern German language as follows:

1. *The basic model of the lexical foundations of the root (monolithic, unmotivated)*. Words formed according to the first model serve as the generative stems of derived words.

2. *5 basic models of the lexical bases of derived (motivated) words:*

Derivative words formed according to these models are analyzed in order to understand their structure and derive their meaning from it according to the principle “from the form of the word to its content”.

The foundations of words formed according to the above-mentioned models, according to Astvatsaryan (1992), are defect-segmented stems of derived words. They clearly show:

1) prefixes (for example, ver-: verlieren, be-: beginnen, etc.), suffixes (-el: Löffel);

2) unique “defective” bases (ginnen, lieren, löff).

Based on the principle “from general to particular” and “from model to micromodel”, the program in foreign languages offers students at the 1st stage to master 16 micromodels of nouns, 20 micromodels of verbs, 20 micromodels of adjectives and adverbs.

At the 2nd stage – 19 micromodels of nouns, 22 micromodels of verbs, 21 micromodels of adjectives and adverbs.

If all micromodels are reduced to models, then it turns out that the student will have to master at the 1st stage – 4 models of nouns, 3 models of adjectives and adverbs, 3 models of verbs. On the 2nd – 4 models of nouns, 2 models of adjectives and adverbs, 3 models of verbs.

This can be represented as follows:

*1st stage of training*

*4 noun patterns:*

1. Models 2,3: SV präS – SN (Beginn), SVimp – SN (Betrieb); SVinf – SN (Verfahren).

2. Models 4,5: ur + SN (Ursache);

3. Models 6,7 /: SV + ung (Verbindung), SV + e (Rücknahme); (Hebel): SV + er (Verstärker); SAdj + e (Größe), SA + keit (Schwierigkeit);

4. Models 10,11: SN + SN (Kreislauf), SV + ei SN + s + SN (Reinigungsanlage); SN + n + SN (Elektronenröhre); SV + SN (Waschwasser); (Duden, 1986)

*3 Models of adjectives and adverbs:*

1. Models 4,5 /: un + SA (unmöglich);

2. Models 6,7: SN + ell (rationell);

3. Models 8,9 SN + lich (wissenschaftlich); SV + lich (löslich); (Duden, 1986)

*3 Models of verbs:*

1. Models 2,3 /: SN – SV (regeln), SA – SV (kühlen), SA + ig – SV (reinigen);

2. Models 4,5 /: an + SV (ansehen), be + SV (besprechen), ver + SV (verbrauchen), er + SV (erhalten), nach + SV (nachlesen), ab + SV (abweichen), ein + SV (einschalten), ent + SV

3. Models 8,9 /: be + SN + ig / en (beseitigen) (Duden, 1986)

2. *stage of training:*

4. *Models of nouns:*

1. Models 2,3 /: SA – SN (Fett), PLL-SN (Angestellte), PL – SN (im Folgenden);

2. Models 6,7 / MM: SV + nis (Ergebnis), SA + heit (reinheit), SA + schaft (Bereitschaft), SN + ei / erei (Bücherei), Wv + e (Inbetriebnahme), Wv + ung (Inbetriebsetzung), Num + tel (Drittel);

3. Models 4,5 /: übe r + SN (Übertemperatur), vor + SN (Vorstufe), nach + SN (Nacharbeit), ab +

4. Models 10,11: Abbr + SN (UV-Licht), SN (einigen) + SN (Mendelejew-Tabelle.); (Duden, 1986)

2 *Models of adjectives and adverbs:*

1. Models 6,7 /: SN + frei (strömungsfrei), SN + fähig (aufnahmefähig), SN + fest (feuerfest), SN + ös (porös), SN+arm (wasserarm), SN + recht (waagrecht), SN+ artig (kugelförmig), SN+ sicher (schlußsicher), SN+haltig (metallhaltig), SN+ähnlich (milchähnlich), SN +wert (wünschenswert); SA + mäßig

(gleichmäßig); SA+lich(reichlich); SNum+fach (dreifach); SN+förmig (gasförmig);

2. Models 10,11/: SN+PLL (luftgekühlt); SA+SA (hellbraun); (Duden, 1986)

3. *Models of verbs:*

1. Models 4,5/: er +SV (erzielen); unter +SV (unterwerfen); ver + SV (verbleiben); durch +SV (durchführen); V (umlaufen); ent/emp+SV (entsprechen, empfehlen); über + SV (überdecken); mit +SV(mitmachen); zer+SV, SN (zersetzen), zersplittern); be+SV (besprechen);

2. Models 8,9/:be+SN+ig/en (beseitigen); ver+SA+ig (en)(verunreinigen);

3. Models 10,11/MM: SAdv+SV (fertigstelle, feststellen, herbeiführen, hintereinanderschalten, wiedersenden, zurückgehen, zusammenfallen, where *fertig, herbei, hintereinander, wieder, zurück,*

*zusammenare* separate first frequency components in complex verbs.

As practice shows, numerals should be repeated at all stages of training, therefore, it is also desirable to include numerals in the lists of models and micromodels.

So, for example, at the first stage – models and micromodels of root, suffix and complex numbers – Models 6,7 /: SNum+Suff (-zig, -ßig, -ste (vierzig, dreißig, dritte, zwanzigste); – Models 10, 11/: SNum+SNum (zweiundzwanzig).

At the second stage, the models of fractional numerals – Models 6,7 include micromodels of fractional numerals SNum+Suff (-tel, -stel (viertel, zwanzigstel).

For the third stage of training, models and micromodels characteristic of terminological vocabulary can be recommended as new ones.

## 7. Conclusion

The results of this study lead to the following conclusions.

1. Not a model, but a micromodel is taken as the unit of selection of the word-formation minimum and teaching word-formation analysis;

2. At the 3rd stage of teaching the German language at the university, it is necessary to plan the repetition of the model of complex words, as well as the micromodel of the most common suffix and prefix words.

3. When teaching word-building minimum and learning word-building analysis, one should rely on models and go from model to micromodels, selecting for each model the most productive micromodels for the studied terminology and their constituent affixes. Revealing the semantics of prefixes / suffixes, their polysemy within a particular model is undoubtedly useful for teaching word formation.

4. In the German language program for higher educational institutions, due attention is paid to teaching the word-formation minimum, which for the first time has been singled out in a special subsection along with the lexical and grammatical minimum.

5. At the 1st and 2nd stages, the trainees should master the basic derivational morphemes and models of derivatives and compound words.

For the 3rd stage of training, the program quite correctly recommends teaching those word-formation morphemes and models that are characteristic of the sublanguage of the studied specialty.

6. From our point of view, the word-formation minimum should be understood as the minimum of basic word-formation models, micromodels and their constituent word-formation elements, based on the knowledge of which the student will be able to carry out word-formation analysis of derivative words in order to derive their meaning.

7. When organizing teaching the word-formation minimum and teaching word-formation analysis according to the principle “from general to particular”, “from model to micromodel”, the trainees should first know the entire vocabulary of the modern German language is built according to 13 basic models lexical foundations. Each of the 13 includes a micromodel, the number of which depends on the number of affixes and on the quality of the producing bases.

8. Based on the tables we offer, it is possible to rationalize the process of teaching the word-formation minimum and teaching word-formation analysis when introducing lexical units, as well as when teaching understanding the semantics of derived words in the process of reading German literature.

9. Work on teaching the word-formation minimum and teaching word-formation analysis, explaining the peculiarities of the structure of words and terms-words of the modern German language, it is advisable to use the appropriate table. In the same case, if you organize training in word-formation minimum and training in word-formation analysis from particular to general, from micromodel to model, then the student also needs knowledge of basic models in order to better navigate the laws of word formation of the foreign language being studied.

10. The advantage of the word-formation minimum proposed in this article in terms of parts of speech and stages of learning, in our opinion, is as follows:

- The word-formation minimum proposed in this article is based on the lists of models that were compiled based on scientifically grounded lists of micromodels.
- The basis of the word-formation minimum is its more adequate definition, the principle of selection and teaching the word-formation minimum and the teaching of word-formation analysis, as well as the top-down approach, from models to micromodels.



- Lists of models and micromodels are given visually, schematically, sequentially, and by stages of learning and parts of speech.

All the above makes it possible to believe that the proposed word-formation minimum will contribute to rationalization of the explanation and the assimilation of the lexical minimum for mastering word-formation analysis in order to recognize the structure of derived words and understand their meaning.

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