



Morphological Awareness and Word-Formation Morphemes as a Pedagogical Instrument for Vocabulary Semantization in Foreign Language Instruction

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Abstract. *Morphological awareness — the conscious understanding of word-formation processes and the semantic and syntactic properties of derivational morphemes — constitutes one of the most productive and transferable competencies available to foreign language learners for autonomous vocabulary development. This article examines the theoretical foundations and pedagogical applications of morpheme-based semantization: the method by which learners derive the meaning of unfamiliar derived words from the meaning of their constituent morphemes, thereby extending their productive and receptive vocabulary without reliance on direct instruction or dictionary consultation. Drawing on morphological awareness research, word-formation theory, vocabulary acquisition studies, and communicative language teaching, the study analyzes the structure of derivational processes in Russian and English, assesses the empirical evidence for morpheme-based vocabulary instruction, and proposes a framework for integrating word-formation analysis into communicatively oriented foreign language curricula. Special attention is paid to the development of word-formation dictionaries as pedagogical instruments that systematically codify the semantic and combinatorial properties of derivational affixes, enabling learners to construct and interpret derived words independently. The findings confirm that systematic morphological awareness instruction produces significant gains in vocabulary breadth, reading comprehension, and metalinguistic awareness, and that word-formation competence is a critically underexploited resource in foreign language vocabulary pedagogy. The article concludes with practical implications for curriculum design, lexicographic resource development, and teacher training in the context of foreign language instruction.*

Keywords: *morphological awareness, word-formation, derivational morphemes, vocabulary semantization, foreign language learning, word-formation dictionary, communicative competence*

1. Introduction

The acquisition of an adequate vocabulary is widely acknowledged as one of the most determinative factors in second and foreign language proficiency, yet the pedagogical strategies available for supporting vocabulary development remain insufficiently diverse and theoretically grounded in many foreign language instructional contexts. Traditional vocabulary pedagogy has

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relied predominantly on what may be characterized as a semasiological approach: learners are presented with a lexical form and its meaning, whether through direct translation, contextual explanation, or dictionary consultation, and are expected to retain this form-meaning association through repetition and practice. While this approach has its place in the initial stages of vocabulary acquisition, it fails to equip learners with the autonomous capacity for vocabulary expansion that advanced proficiency requires — the ability to encounter an unfamiliar derived word and construct its meaning independently from the meanings of its constituent morphemes (Nation, 2001; Schmitt, 2000).

Morphological awareness — defined as conscious knowledge of the internal morphological structure of words and the semantic, syntactic, and phonological properties of derivational morphemes — constitutes precisely this kind of autonomous vocabulary-building capacity (Kieffer & Lesaux, 2008). A learner who understands that the Russian prefix *nepe-* conveys the meaning of repeated or excessive action, or that the English suffix *-ness* derives abstract nouns from adjectives with a predictable semantic relationship, possesses a generative tool for interpreting and producing an open-ended range of derived words without instruction or dictionary support. The theoretical significance of this capacity has been widely recognized in first language literacy research (Carlisle, 2000), but its systematic integration into foreign language vocabulary pedagogy has proceeded more slowly and unevenly than the evidence warrants.

The theoretical and practical problems at the center of this article concern the conditions under which morphological awareness can be most effectively developed in foreign language instruction, the design of pedagogical instruments — particularly word-formation dictionaries — that systematize and make accessible the semantic properties of derivational morphemes, and the relationship between morpheme-based semantization and the development of communicative competence in foreign language learners. These problems are examined through the lens of word-formation theory, vocabulary acquisition research, and communicative language teaching, with illustrative attention to word-formation processes in Russian as a morphologically rich language whose derivational system is particularly productive and whose pedagogical exploitation in foreign language instruction has been the subject of sustained scholarly investigation.

The article proceeds as follows. Section 2 presents the theoretical framework, integrating morphological awareness research, word-formation theory, and vocabulary acquisition models. Section 3 describes the methodology. Sections 4 and 5 analyze the structure of word-formation processes and the design of word-formation dictionaries as pedagogical instruments. Section 6 examines the communicative dimensions of morpheme-based vocabulary instruction. Section 7 presents discussion and pedagogical implications, and Section 8 concludes the study.

2. Theoretical Framework



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2.1 Morphological Awareness in Vocabulary Acquisition

The relationship between morphological awareness and vocabulary development has been extensively investigated in both first and second language research. Carlisle's (2000) influential work demonstrated that morphological awareness at the word level — the ability to analyze words into their constituent morphemes and to understand morphological derivation relationships — is a significant predictor of vocabulary knowledge and reading comprehension in L1 English learners, independent of phonological awareness and general verbal ability. Subsequent research in second language contexts has consistently confirmed and extended these findings. Kieffer and Lesaux (2008) demonstrated that morphological awareness predicts vocabulary knowledge and reading comprehension among Spanish-speaking EFL learners in the United States. Jiang and Zipf (2023) found strong correlations between derivational morphological awareness and both productive and receptive vocabulary knowledge across typologically diverse L2 learner populations.

The theoretical mechanism through which morphological awareness supports vocabulary development is well established. Morphologically complex words — derived words formed through the affixation of prefixes, suffixes, or infixes to base forms — constitute the majority of the vocabulary of morphologically rich languages such as Russian, German, and Turkish, and a substantial proportion of the vocabulary of more analytic languages such as English. When learners can decompose a derived word into its constituent morphemes and retrieve the meanings of those morphemes, they gain access to the meaning of the derived word without the need for direct instruction or dictionary consultation. This decomposition-based semantization process is precisely the mechanism that Esgerova (in preparation) and other word-formation pedagogists describe as the central goal of morphologically oriented vocabulary instruction.

2.2 Word-Formation Theory and Derivational Productivity

Word-formation theory — the branch of morphology concerned with the systematic processes through which new words are created from existing lexical and morphological material — provides the theoretical foundation for understanding both how derived words acquire their meanings and how this knowledge can be exploited pedagogically. Aronoff (1976) established the principle that word-formation processes are governed by morphological rules that operate on base forms to produce derived forms with predictable morphophonological and semantic properties. The productivity of a word-formation rule — the degree to which it is actively deployed to create new words in the language — is a critical variable for vocabulary pedagogy, as highly productive rules generate larger lexical families and therefore offer greater returns on the investment of morphological instruction.

In Russian, a language with one of the most productive and systematically organized derivational systems among the major European languages, word-formation processes account for the majority of the vocabulary available to educated adult speakers. Tikhonov's (1985) comprehensive word-formation dictionary of Russian documents over 145,000 words organized into derivational



families, demonstrating the extraordinary scope of Russian morphological productivity and the correspondingly vast vocabulary gains that morphological awareness instruction can yield. The prefix *пере-* alone participates in the formation of over 300 commonly used verbs with predictable semantic modifications of the base verb meaning — conveying excessive action (*передать*, to overeat), repeated action (*перечитать*, to reread), movement from one place to another (*переехать*, to move), and mutual action (*переговариваться*, to exchange words). A learner who has internalized the semantic range of this single prefix has effectively unlocked access to hundreds of lexical items that would otherwise require individual instruction.

2.3 Vocabulary Acquisition Models

Nation's (2001) influential vocabulary acquisition framework provides a complementary theoretical perspective on the role of morphological knowledge in vocabulary development. Nation argues that vocabulary knowledge encompasses multiple dimensions — including word form, meaning, use, grammatical behavior, collocations, and word family relationships — and that productive vocabulary use requires mastery of all of these dimensions rather than form-meaning association alone. From this perspective, morphological knowledge — knowledge of how words in a derivational family are formally and semantically related — constitutes an essential component of deep lexical knowledge that enables learners to use words flexibly and accurately across diverse contexts. Laufer and Goldstein's (2004) work on productive vocabulary use further emphasizes that awareness of derivational relationships enables learners to produce contextually appropriate derived forms in writing and speech, a dimension of productive competence that vocabulary instruction focused exclusively on receptive form-meaning associations fails to develop.

3. Methodology

This study employs a qualitative, descriptive-analytical methodology combining systematic literature review, theoretical analysis of word-formation systems, and the evaluation of existing pedagogical instruments for morpheme-based vocabulary instruction. The literature review encompassed peer-reviewed research in morphological awareness, word-formation theory, and vocabulary acquisition published between 2000 and 2025, identified through Scopus, Web of Science, and ERIC. Secondary analysis of existing word-formation dictionaries — particularly Russian-language pedagogical dictionaries designed for foreign language learners — was conducted to assess their design principles and pedagogical adequacy. The analytical framework integrates word-formation theory, vocabulary acquisition research, and communicative language teaching principles to propose an evidence-based model for morpheme-based vocabulary instruction.

4. The Structure of Derivational Processes and the Semantization of Derived Words



4.1 Derivational Motivation and Semantic Transparency

The central concept for morpheme-based semantization is derivational motivation — the relationship between the meaning of a derived word and the meaning of its base form and affixes. A derived word is said to be morphologically motivated when its meaning is predictable from the meanings of its constituent morphemes; it is demotivated or opaque when this predictability has been lost through semantic drift, lexicalization, or irregularity (Aronoff, 1976). The degree of semantic transparency of derived words varies considerably both across derivational processes and across individual lexical items within the same derivational category, and this variation has important implications for the pedagogical exploitation of morphological knowledge.

In Russian, the derivational system is characterized by a high degree of semantic transparency in the productive word-formation processes that generate the majority of the lexicon available to learners at intermediate and advanced proficiency levels. Prefix-based verbal derivation is particularly regular: the prefixes *вы-*, *за-*, *на-*, *по-*, *пере-*, *раз-*, and others modify base verb meanings according to consistent semantic patterns — directionality, completion, distribution, repetition, separation, and so on — that learners can internalize as rules for interpreting and producing derived forms. Suffix-based nominal and adjectival derivation is similarly regular in many categories: agentive suffixes (*-щик/-чик*, *-тель*, *-ист*) systematically derive agent nouns from verb bases; evaluative suffixes (*-ник*, *-ница*) derive nouns denoting characteristic behavior; abstract noun suffixes (*-ость*, *-ение/-ание*, *-ство*) derive abstract nouns from adjective and verb bases with predictable semantic relationships. Mastery of these productive patterns grants learners the capacity to semantize a substantial proportion of derived words they encounter in authentic texts without dictionary consultation.

4.2 The Semantization Method Based on Morpheme Meaning

The semantization method that places the derivational base within the definition of the derived word — defining *писатель* (writer) as "one who *пишет* (writes)" and *перечитать* (to reread) as "to *читать* (read) again" — represents the most cognitively natural and pedagogically efficient approach to explaining derived word meaning, precisely because it mirrors the structure of derivational motivation itself. When learners understand that a derived word's meaning is compositionally determined by the meaning of its base and the meaning of its affix, they acquire not merely the meaning of the specific word being taught but a generalizable schema for interpreting and producing the entire derivational family to which that word belongs.

This approach requires that the semantic properties of affixes be explicitly taught as productive, generative components rather than as incidental features of individual lexical items. The pedagogical challenge is that individual affixes often exhibit semantic polysemy — multiple related but distinct meanings distributed across different derivational contexts — that must be systematically documented and taught if learners are to apply morphological knowledge reliably. The prefix *пере-*, for example, is polysemous across at least four major semantic values (repetition,



excess, movement, mutuality), and a learner who knows only one of these values will misinterpret a substantial number of *пеpe*-prefixed forms. A pedagogically adequate account of affix meaning must therefore address the full semantic range of each affix, organized by frequency and productivity to ensure optimal learning efficiency.

5. Word-Formation Dictionaries as Pedagogical Instruments

5.1 Design Principles for Pedagogical Word-Formation Dictionaries

Word-formation dictionaries designed for foreign language learners constitute a category of lexicographic resource that is both theoretically well-motivated and practically underdeveloped. Existing word-formation dictionaries of Russian — including the large-scale reference works of Tikhonov (1985) and the pedagogically oriented dictionaries of Kuz'mina and Nemchenko (1986) — provide valuable documentation of derivational relationships but are not designed with foreign language learner needs in mind. A pedagogically adequate word-formation dictionary for foreign language learners must satisfy several additional requirements that standard lexicographic word-formation dictionaries do not address.

First, it must be organized by formant (affix) rather than by derivational family, so that learners can systematically acquire the semantic and combinatorial properties of individual affixes as productive rules rather than encountering them incidentally across disparate lexical entries. Second, it must document not only the core meaning of each affix but its semantic range and the contextual conditions that determine which semantic value is realized in any given derived form. Third, it must include contrastive information highlighting the distinctions between semantically related affixes — for example, the distinction between the Russian agentive suffixes *-щик/-чик* and *-тель*, which both derive agent nouns but differ in their combinatorial restrictions and stylistic connotations. Fourth, it must be integrated with exercises and activities that develop learners' productive as well as receptive morphological competence — enabling them to construct derived forms as well as to interpret them (Nation & Waring, 2020).

5.2 The Proposed Dictionary Model

Drawing on these design principles, this article proposes a model for a pedagogical word-formation dictionary of Russian derivational affixes for foreign language learners structured around three organizational levels. At the macro-level, affixes are organized by grammatical category (verbal prefixes, nominal suffixes, adjectival suffixes) and within each category by productivity rank, ensuring that learners who study the dictionary sequentially encounter the highest-frequency, most productive affixes first. At the meso-level, each affix entry documents its core semantic value(s), its morphophonological variants, its collocational and selectional restrictions (including information about the semantic classes of base words with which the affix productively combines), and contrastive notes distinguishing it from semantically related affixes. At the micro-level, each semantic value of each affix is illustrated with a set of derived form



examples organized by semantic subtype, with each example accompanied by its base form, a compositional definition, and example sentences in authentic contexts.

This three-level structure directly addresses the principal pedagogical inadequacies of existing word-formation reference materials: it makes affix meaning the primary organizational principle rather than lexical form; it documents semantic polysemy systematically rather than treating each derived word as a separate lexical item; and it provides the collocational and selectional information that learners need to apply morphological knowledge productively rather than merely receptively. Such a resource would enable learners to approach unfamiliar derived words analytically rather than dependently — decomposing them into their morphological constituents, retrieving the meanings of those constituents from stored morphological knowledge, and constructing a compositional interpretation that can be verified against contextual evidence.

6. Communicative Dimensions of Morpheme-Based Vocabulary Instruction

The relationship between morphological awareness and communicative competence is mediated through several distinct pathways that together make morpheme-based vocabulary instruction a powerful tool for developing the full range of competencies required for authentic communication in a foreign language. The most direct pathway is lexical breadth: learners with strong morphological awareness command larger vocabularies because they can extend their receptive and productive vocabulary through morphological inference rather than being limited to words they have encountered and studied directly. Nation's (2001) research demonstrates that vocabulary size is among the strongest predictors of reading comprehension and overall language proficiency, and morphological awareness is one of the most efficient routes to vocabulary expansion available to advanced learners.

A second pathway concerns the precision and appropriateness of vocabulary use in production. Learners who understand the derivational relationships within word families — including the grammatical category, semantic nuance, and stylistic connotation differences between related forms — are better equipped to select the contextually appropriate form in writing and speech. The distinction between the Russian abstract nouns ending in *-ость* (typically derived from adjectives, denoting qualities: *красота*, beauty) and those ending in *-ение/-ание* (typically derived from verbs, denoting processes or results: *решение*, decision; *написание*, writing) is not merely a morphological fact but a communicative resource: it enables learners to express the distinction between properties and events in a way that reflects natural Russian usage. This kind of precision in form selection is a hallmark of advanced communicative competence that morphologically uninstructed learners are unlikely to develop.

A third pathway concerns reading fluency and comprehension efficiency. Readers who recognize derived words as morphologically complex — rather than treating each derived form as an opaque, unanalyzed unit — process text more efficiently because they can decode unfamiliar derived words through morphological inference rather than interrupting reading to consult a dictionary. Research



by Hulstijn, Hollander, and Greidanus (1996) demonstrates that the capacity for contextual and morphological inference in vocabulary learning is closely associated with reading fluency and with the depth of incidental vocabulary acquisition that extensive reading can produce. Morphological awareness instruction therefore supports not only direct vocabulary learning but the effectiveness of extensive reading as a broader vocabulary acquisition strategy (Day & Bamford, 1998).

7. Discussion

The analysis presented in this article converges on a set of conclusions with significant implications for vocabulary pedagogy in foreign language instruction. The most fundamental is that morphological awareness instruction — systematic, explicit teaching of the semantic and combinatorial properties of derivational morphemes — represents a critically underexploited resource in foreign language vocabulary pedagogy whose potential returns substantially exceed those of the form-meaning association approach that dominates most instructional contexts. The evidence from morphological awareness research, word-formation theory, and vocabulary acquisition studies consistently supports the view that learners who possess explicit morphological knowledge are more effective vocabulary learners, more proficient readers, and more precise language producers than those who lack it.

The development of adequate pedagogical instruments for morpheme-based vocabulary instruction — particularly word-formation dictionaries organized by affix rather than by lexical form — represents a priority research and development need in applied linguistics and lexicography. Existing word-formation reference resources for foreign language learners of Russian and other morphologically rich languages are insufficient in both scope and pedagogical design to support the kind of systematic morphological awareness development that the research evidence endorses. The dictionary model proposed in this article represents one response to this gap, though its practical realization would require substantial collaborative work between morphologists, lexicographers, and language teaching specialists with expertise in learner needs analysis.

The implications for communicative language teaching are also significant. A communicative approach to vocabulary instruction does not reduce vocabulary teaching to contextual guessing or incidental acquisition from input alone; it integrates systematic vocabulary instruction — including morphological awareness development — within communicatively meaningful tasks and texts. The use of authentic texts as the primary vehicle for vocabulary instruction, combined with explicit pre-teaching of derivational morpheme meanings relevant to the target text and post-reading activities requiring productive use of derived forms, represents a principled integration of morphological instruction within a communicative framework. As Nuri and Ismayilli (2025) note in their analysis of student motivation, learners who understand the systematic, rule-governed nature of the language they are learning — and who experience the intellectual satisfaction of independently constructing word meanings through morphological analysis — report higher levels



of intrinsic motivation and more sustained engagement with vocabulary learning tasks than those who rely on rote memorization alone.

8. Conclusion

This article has examined the theoretical foundations and pedagogical applications of morpheme-based semantization as an approach to vocabulary development in foreign language instruction, with particular attention to the derivational morphology of Russian as a productive case study. The analysis has demonstrated that morphological awareness — the conscious knowledge of word-formation processes and the semantic properties of derivational morphemes — constitutes one of the most powerful and transferable vocabulary-building tools available to foreign language learners, enabling the independent interpretation and production of derived words across the full scope of the derivational lexicon.

The central argument of the article is that the systematic integration of word-formation instruction into foreign language curricula, supported by purpose-designed pedagogical instruments such as the word-formation dictionary model proposed here, would yield substantial improvements in learners' vocabulary breadth, reading comprehension, and productive language precision — improvements that the dominant form-meaning association pedagogy is structurally unable to achieve. Realizing this potential requires the development of adequate lexicographic resources, the reform of vocabulary instruction methodologies in the direction of greater morphological explicitness, and sustained investment in teacher professional development to equip language instructors with the morphological knowledge and pedagogical skills required to implement morphological awareness instruction effectively. Future research should investigate the optimal sequencing and timing of morphological awareness instruction across proficiency levels, the relative effectiveness of different instructional formats (explicit vs. implicit, deductive vs. inductive) for morpheme meaning teaching, and the differential outcomes of morphological instruction across typologically distinct L1-L2 language pairs.

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