

(scarecrow → a figure to scare birds), making abstract morphological rules tangible.

Overall, the integration of these technologies enhances comprehension, supports personalized learning, and equips learners with the skills necessary for independent word analysis and practical language use. This approach ensures that students not only memorize rules but also apply them effectively in real contexts.

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TEACHING HEADED AND HEADLESS COMPOUNDS IN ENGLISH MORPHOLOGY THROUGH MODERN EDUCATIONAL TECHNOLOGIES

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Abstract: This paper examines effective methods for teaching headed and headless compounds within English morphology by incorporating modern educational technologies. Compounding, as a key mechanism of word formation, often creates difficulties for learners due to its structural diversity and semantic complexity. The study focuses on the distinction between endocentric (headed) and exocentric (headless) compounds and demonstrates how digital tools, interactive platforms, and artificial intelligence can facilitate better understanding. The findings suggest that technology-enhanced instruction contributes to improved learner engagement, deeper morphological awareness, and more efficient acquisition of lexical knowledge.

Keywords: *English morphology, compounding, endocentric compounds, exocentric compounds, digital tools, language learning, artificial intelligence, interactive learning*

Annotatsiya: Mazkur maqolada ingliz tilidagi morfologiya doirasida boshli (headed) va boshsiz (headless) qo'shma so'zlarni o'qitishning samarali usullari zamonaviy ta'lim texnologiyalari asosida tahlil qilinadi. Qo'shma so'zlar tilning muhim so'z yasash vositasi bo'lib, ularning tuzilishi va semantik murakkabligi o'quvchilar uchun muayyan qiyinchiliklar tug'diradi. Tadqiqotda endosentrik va ekzotsentrik qo'shma so'zlar o'rtasidagi farqlar yoritilib, raqamli vositalar, interaktiv platformalar hamda sun'iy intellekt texnologiyalarining o'rne asoslab beriladi. Natijalar shuni ko'rsatadiki, texnologiyaga asoslangan ta'lim o'quvchilarning faolligini oshiradi, morfologik bilimlarini chuqurlashtiradi va lug'aviy kompetensiyasini rivojlantiradi.

Kalit so'zlar: *ingliz tili morfologiyasi, qo'shma so'zlar, endosentrik birliklar, ekzotsentrik birliklar, raqamli texnologiyalar, interaktiv ta'lim, sun'iy intellekt*

Аннотация: В данной статье рассматриваются эффективные методы обучения головным (headed) и безголовным (headless) сложным словам в английской морфологии с использованием современных образовательных технологий. Сложение является важным способом словообразования, однако его структурная и семантическая сложность вызывает трудности у обучающихся. В исследовании анализируется различие между эндоцентрическими и экзоцентрическими сложными словами, а также обосновывается роль цифровых инструментов, интерактивных платформ и технологий искусственного интеллекта. Результаты показывают, что использование современных технологий способствует повышению мотивации учащихся, углублению морфологических знаний и развитию лексической компетенции.

Ключевые слова: *английская морфология, сложные слова, эндоцентрические конструкции, экзоцентрические конструкции, цифровые технологии, интерактивное обучение, искусственный интеллект*

Morphology is a fundamental domain of linguistics, investigates the internal organization of lexical units and the systematic principles governing word formation. Within this framework, compounding is recognized as one of the most productive morphological processes in English, enabling the creation of new lexical items through the combination of two or more bases. This process not only contributes to vocabulary expansion but also allows for the expression of semantically complex and conceptually nuanced meanings within a compact structural form.

From a structural-semantic perspective, English compounds are traditionally classified into headed (endocentric) and headless (exocentric) types. Endocentric compounds are characterized by the presence of a semantic head that determines both the grammatical category and the core meaning of the compound. Typically, in English, the head element is right-oriented. For example, in “bookshelf”, the constituent “shelf” functions as the head, indicating that the referent is a type of shelf, while “book” specifies its function. Similarly, in “snowball”, the head “ball” defines the object category, and “snow” provides descriptive modification. In contrast, exocentric compounds lack an explicit internal head, and their meaning cannot be directly derived from either constituent. These compounds are semantically non-transparent and often require contextual or cultural knowledge for interpretation. For instance, “pickpocket” does not denote a type of pocket or an act of picking, but rather refers to a person who steals from others’ pockets. Likewise, “lazybones” designates a person characterized by laziness, rather than a specific type of bones. Such examples illustrate that the referential meaning lies outside the immediate structure of the compound.

The distinction between these two types is of particular importance in language pedagogy, as it enhances learners’ morphological awareness and supports the development of analytical skills in vocabulary acquisition. However, the semantic opacity of exocentric compounds and the structural variability of compounds in general often present challenges for language learners. For example, while compounds like “toothpaste” are relatively transparent, others such as “butterfly” or “redhead” require inferential interpretation beyond their constituent elements. Consequently, mastering compounding in English demands not only the recognition of formal structural patterns but also the ability

to interpret semantic relationships between components. This underscores the need for systematic and methodologically sound approaches in teaching morphology, particularly when addressing complex phenomena such as headed and headless compounds.

In recent years, the rapid advancement of modern educational technologies has significantly influenced the evolution of language teaching methodologies. The incorporation of digital platforms, multimedia environments, and artificial intelligence has enabled the presentation of complex linguistic structures in a more dynamic, interactive, and learner-oriented format. These innovations are particularly valuable in the field of morphology, where abstract concepts often require visual and contextual support. As a result, technology-enhanced instruction has become an effective means of facilitating the acquisition of word-formation processes, including compounding.

Compounding is regarded as one of the most productive mechanisms in English word formation, involving the combination of two or more lexical bases to create a new semantic unit. From a structural perspective, compounds are typically divided into endocentric (headed) and exocentric (headless) types. Endocentric compounds contain a central element that determines both the grammatical class and the primary meaning of the entire construction. In most cases, this head element appears in the final position. For example, in “classroom”, the component “room” serves as the head, indicating that the referent belongs to the category of rooms, while “class” specifies its functional purpose. Similarly, in “raincoat”, the head “coat” defines the object type, and “rain” provides additional descriptive information.

By contrast, exocentric compounds lack a clearly identifiable internal head, and their meanings cannot be directly deduced from their individual components. These constructions often demonstrate semantic idiosyncrasy and require interpretative reasoning. For instance, the compound “loudmouth” refers to a person who speaks excessively or indiscreetly, rather than a type of mouth. In a similar way, “highbrow” denotes an intellectually oriented individual, not a physical feature. Such examples illustrate that the referential meaning is external to the structural components, which can present notable difficulties for language learners.

Consequently, the distinction between these compound types necessitates pedagogical approaches that combine theoretical explanation with practical application. The use of modern educational technologies, such as interactive exercises, corpus-based analysis, and AI-supported feedback systems, can significantly enhance learners’ ability to recognize structural patterns and interpret meaning more effectively. In the contemporary stage of language education,

technological progress has brought about a qualitative shift in instructional practices. The adoption of digital learning environments, intelligent systems, and multimedia resources has enabled educators to deliver linguistically complex material in a more accessible and cognitively engaging way. Such tools are especially relevant in the study of morphological structures, where learners must grasp abstract relationships between form and meaning. As a result, the teaching of word-formation patterns, particularly compounding, increasingly relies on interactive and technology-supported methods.

Within English morphology, compounding functions as an essential mechanism for lexical innovation, allowing multiple stems to merge into a single semantic unit. Based on internal organization and meaning relations, compounds are divided into endocentric and exocentric categories. Endocentric formations include a principal component that determines the grammatical identity and semantic core of the expression. This governing element is typically positioned at the end of the structure. For example, in “bedroom”, the unit “room” identifies the general class of the object, whereas “bed” narrows its specific function. In a similar manner, “sunlight” is interpreted through the head “light”, while “sun” specifies its source. Exocentric constructions, on the other hand, do not contain an overt structural center, and their interpretation extends beyond the literal meanings of their parts. Such units often reflect metaphorical or culturally established meanings that cannot be predicted through direct analysis. For instance, the compound “egghead” is used to describe an intellectual person rather than a physical object, while “redneck” refers to a social group rather than a color-related feature. These examples demonstrate that meaning is assigned externally, requiring a higher level of interpretative ability from learners.

Addressing these distinctions in an educational context necessitates the application of innovative teaching strategies. Digital instruments such as interactive modules, linguistic databases, and adaptive learning systems provide opportunities for students to explore structural patterns independently and receive immediate feedback. Visualization techniques, including schematic representations and animated models, further assist in clarifying relationships between components. The ability to analyze such formations contributes to the development of advanced linguistic competence, as learners become capable of decoding unfamiliar vocabulary and understanding deeper semantic connections. Consequently, combining theoretical insight with technologically enhanced practice ensures a more effective and comprehensive approach to mastering compounding in English.

Corpus-oriented resources play a crucial role in the study of word formation, as they provide access to authentic linguistic material drawn from real communicative contexts. Through the examination of such data, learners are able to observe how compound structures function in natural discourse, including variations in meaning and usage. This approach supports inductive learning, encouraging students to detect regularities, compare patterns, and formulate generalizations independently rather than relying solely on explicit instruction. In addition, the application of artificial intelligence introduces a new dimension to language learning by enabling adaptive and individualized instruction. Intelligent systems can monitor learner performance, diagnose specific difficulties, and generate customized tasks accordingly. For instance, when students encounter challenges in interpreting semantically opaque compounds, the system may supply contextualized exercises that guide them toward more accurate understanding through inference and analysis.

Another productive direction involves the use of gamified learning environments. The integration of elements such as competitive tasks, progress tracking, and reward mechanisms contributes to sustained learner motivation and active participation. Within this framework, repeated exposure to different compound types in engaging formats helps reinforce structural distinctions and supports long-term retention. An effective instructional model in this area typically combines foundational explanation with technology-supported practice. At the initial stage, learners are introduced to essential theoretical concepts, including structural classification and semantic relationships. This is subsequently reinforced through interactive activities delivered via digital platforms, where students analyze linguistic forms, categorize examples, and construct their own compounds based on given patterns.

Collaborative learning also plays an important role in consolidating knowledge. Group-based tasks, discussions, and virtual projects create opportunities for exchanging ideas and jointly solving linguistic problems. Furthermore, the use of multimedia materials-such as animated demonstrations and visual schemata-facilitates clearer understanding of internal word structure and meaning relations. Evaluation procedures have likewise been transformed through digitalization. Automated testing systems and instant feedback mechanisms enable continuous assessment of learner progress, allowing for timely correction of errors and more efficient tracking of development over time.

The integration of these technological solutions offers multiple pedagogical benefits. It increases learner involvement through interactive content, supports differentiated instruction by

accommodating individual learning speeds, and provides direct exposure to authentic language use. At the same time, certain limitations must be acknowledged, including the requirement for adequate technical resources, sufficient digital competence, and appropriate teacher training. Without these conditions, the potential advantages may not be fully realized. Overall, the incorporation of innovative technologies into the teaching of English compounding creates a more flexible and effective learning environment. By linking theoretical understanding with practical, technology-driven application, educators can foster deeper comprehension of morphological structures and promote greater learner autonomy. Future investigations may further explore how such approaches influence long-term linguistic development and the acquisition of advanced language skills.

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DEVELOPING ENGLISH LANGUAGE SKILLS THROUGH INFLECTION: PRONOUNS AND DETERMINERS IN AI-ASSISTED LEARNING

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Abstract: This article examines the processes of word formation, pronoun inflection and conversion in the English language, as well as the continuous analysis of new teaching technologies using modern technologies, platform creation technologies and their effective application.

Keywords: *English morphology, inflection, pronouns, determiners, AI-assisted learning, interactive tools*

Annotatsiya: Ushbu maqola ingliz tilida so‘z shakllari, olmoshlar infleksiv holatlarda o‘zgarish va konversiyaning hosil bo‘lish jarayonlari hamda zamonaviy texnologiyalar yordamida o‘qitishni yangi texnologiyalarini uzliksiz taxlilar qilish qolaversa platformalarni yaratish va ulardan samarali foydalanish texnologiyalari xaqida yoritib berilgan.

Kalit so‘zlar: *ingliz morfologiyasi, infleksiya, olmoshlar, belgilovchilar, AI yordamida o‘qitish, interaktiv vositalar*

Аннотация: В данной статье рассматриваются процессы словообразования, падежей словоизменения местоимений и конверсии в английском языке, а также непрерывный анализ новых технологий обучения с использованием современных технологий, технологий создания платформ и их эффективного применения.

Ключевые слова: *морфология английского языка, инфлексия, местоимения, определители, обучение с использованием ИИ, интерактивные инструменты*

Mastering English grammar necessitates a comprehensive understanding of both word forms and their grammatical functions.