

FOREIGN LANGUAGES AND VIETNAMESE

**A CONTRASTIVE STUDY ON COMPOUND NOUNS
IN SOME ENGLISH AND VIETNAMESE TEXTS
ABOUT ENVIRONMENT****BUI THI OANH* -****PHAM THI HONG QUE** - HOANG THI TUYET NHUNG*****

ABSTRACT: This research undertakes a comparative analysis of compound nouns found in English and Vietnamese environmental texts, aiming to identify both syntactic and semantic similarities and differences. The study examines 400 compound nouns (200 from each language) selected from reputable environmental texts, offering comprehensive insights into the structural and semantic traits of compound nouns in these languages. English compound nouns typically follow an endocentric structure, with the head noun defining the overall meaning, while Vietnamese compound nouns often exhibit a subordinate relationship where one element modifies the other. The research indicates that Noun + Noun compounds are the most prevalent in both languages, though their syntactic and semantic roles differ significantly. Additionally, the study underscores the importance of understanding these linguistic nuances for educators, translators, and language learners. Future research recommendations include investigating compound nouns in other specialized fields, examining pragmatic features, and conducting cross-linguistic comparisons. The findings contribute to a deeper comprehension of compound noun formation and usage, offering valuable insights for enhancing language education and translation practices in both English and Vietnamese contexts.

KEY WORDS: compound nouns; English; Vietnamese; environmental texts; syntax; semantics.

RECEIVED: August, 08th, 2024.

EDITED: November, 19th, 2024

1. Introduction

Understanding the formation and usage of compound nouns is essential in both English and Vietnamese, especially within specialized texts such as those related to the environment. As languages evolve, it becomes necessary to analyze these linguistic structures to enhance comprehension, translation accuracy, and educational methodologies.

This study aims to explore the syntactic and semantic features of compound nouns in English and Vietnamese environmental texts. By conducting a comprehensive analysis of 400 compound nouns sourced from reliable environmental texts, this research provides valuable insights into the similarities and differences in compound noun formation and usage between the two languages. This understanding can aid educators, translators, and language learners in navigating the complexities of compound nouns.

The study begins by examining the structure of compound nouns in English, where they are often formed with a head-modifier relationship. The head noun typically determines the compound's grammatical category, making it relatively straightforward to infer meanings. Common structures include Noun + Noun, Adjective + Noun, and Verb + Noun, each contributing to the rich lexicon of English environmental texts.

In contrast, Vietnamese compound nouns exhibit different syntactic behavior, often following a subordinate or coordinate relationship. While Noun + Noun compounds are prevalent, other formations such as Noun + Verb and Noun + Adjective also play significant roles. Understanding these structures is crucial for accurate translation and effective language teaching.

Subsequently, the study delves into the semantic features of compound nouns. In English, most compound nouns are endocentric, where the meaning can be inferred from the head noun. This

*Dr.; Hanoi University of Natural resources and Environment; Email: btoanh@hunre.edu.vn

**Hanoi University of Natural resources and Environment; Email: pthque@hunre.edu.vn

***Hanoi University of Natural resources and Environment; Email: httnhung@hunre.edu.vn

characteristic simplifies the interpretation process and enhances practical communication skills. On the other hand, Vietnamese compound nouns are primarily subordinate, where one element modifies the other, adding complexity to their semantic interpretation.

By comparing the perspectives of English and Vietnamese compound noun formations and meanings, this study provides a comprehensive understanding of the linguistic nuances in both languages. These insights are invaluable for curriculum developers, educators, and policymakers in designing effective language education programs that address the needs of learners.

Research aims and objectives:

The primary goal of this study is to examine the syntactic and semantic features of compound nouns in English and Vietnamese environmental texts to enhance the understanding and teaching of these linguistic structures.

The research objectives of this study can be summarized into three main areas.

Firstly, Identify and describe the types and meanings of English compound nouns in environmental texts, evaluating their contribution to the comprehension of environmental terminology.

Secondly, Identify and describe the types and meanings of Vietnamese compound nouns in environmental texts, pinpointing areas that may require further analysis.

Lastly, Compare the types and meanings of English and Vietnamese compound nouns in terms of syntactic and semantic features, providing actionable recommendations for educational practices and translation accuracy.

Research questions:

From the research objectives, three research questions were developed as follows:

RQ1: What are the syntactic structures of compound nouns in English and Vietnamese environmental texts?

RQ2: How do the semantic features of compound nouns differ between English and Vietnamese environmental texts?

RQ3: What are the implications of these syntactic and semantic features for language teaching, translation, and curriculum development?

These questions guided the selection and analysis of the 400 compound nouns from English and Vietnamese environmental texts, aiming to provide relevant, rigorous, and comprehensive insights into their formation and usage.

2. Literature review

2.1. Review of the previous studies

The study of compound words has garnered significant attention from researchers worldwide. Several previous studies have explored various aspects of compound word formation and their meanings.

First, Rahadiyanti (2017), in the study *"An Analysis of Compound Words in Political Articles of Strategic Review Magazine"*, examined the formation of compound words in political texts. The findings revealed three common compound formations—noun + noun, verb + noun, and adjective + noun—as well as one formation each for compound adjectives (adverb + adjective) and compound verbs (particle + verb). Additionally, the research classified compounds into endocentric (55%) and exocentric (45%) types.

Second, Rumiya (2015) analyzed compound words in the novel *"The Single Girls' To-Do List"* by Lindsey Kelk. The research identified 636 instances of endocentric compounds, accounting for 79.70% of the total, followed by copulative compounds (37 instances, 4.64%) and exocentric compounds (125 instances, 15.66%).

Third, Christiano (2019) conducted a theoretical study on the types of compound words and their lexical categories, using data from various resources such as books, journal articles, and online sources. The research highlighted the existence of both endocentric and exocentric compounds and

identified compound nouns, compound verbs, and compound adjectives as the primary lexical categories involved in compounding.

Additionally, Hamad (2016) conducted a study comparing compound noun formation patterns in English and Kurdish. The study identified 19 syntactic patterns in English and 28 in Kurdish. A key difference was the frequent use of inter-fixes in Kurdish compounds, which do not appear in English. Hamad found that both languages share four types of compound nouns-endocentric, exocentric, appositional, and coordinative-with endocentric compounds being the most prevalent in both languages.

Finally, Millaku & Topanica (2016) examined the structural differences between English and Albanian compound nouns in their paper *"The Compound Nouns Between English and Albanian Language"*. Although both languages share some structural similarities, they noted that Albanian compound nouns are usually simple words, whereas English compounds cannot be formed using prepositions or conjunctions.

In summary, despite extensive research on compound words in various languages, there is a noticeable gap in studies examining compound nouns in English and Vietnamese environmental texts. This study aims to fill that gap through a contrastive analysis, further exploring the syntactic and semantic features of compound nouns in both languages.

2.2. Theoretical background and theoretical framework

As noted by Plag (2003), the majority of compound words in English follow a modifier-head structure, where the left-hand element modifies the right-hand element. For example, in *"knee-deep water,"* the word *"knee-deep"* provides information about the depth of the water. The head of the compound, typically the right-hand element, is the most significant as it determines the compound's semantic and syntactic properties. For instance, if the head is a verb, the entire compound will behave as a verb. This right-hand head rule is a distinctive feature of English compounds.

The structure of English compounds is characterized by this modifier-head relationship, where the rightmost constituent serves as the head and is modified by the preceding element. A compound usually inherits most of its syntactic and semantic features from the head, functioning as a single unit within the grammatical structure. For example, in compound nouns, the whole structure operates as a noun, irrespective of the modifier.

Booij (2005, p.47) emphasizes that morphology deals with the systematic relationship between the form and meaning of complex words. This understanding is crucial for analyzing compound words, as their meanings often stem from the interaction of their components. Krediler (2002, p.3) defines semantics as the systematic study of meaning, specifically how languages organize and express these meanings. In compound words, this relationship between form and meaning can be analyzed in terms of the semantic relations between the head and modifier(s). Katamba (1993, p.305) identifies endocentric compounds as the most common type in English. From Katamba's views, it can be understood that an endocentric compound is a type of compound noun where the meaning is clear from its components, and one of the elements (usually the head) defines the core meaning of the compound. The head of the compound is often a noun, and the other element modifies or describes the head noun. In endocentric compounds, the compound as a whole still refers to a subtype of the head noun, which is the central or primary part. For example: *"air pollution"* (pollution of the air), *"blood pressure"* (pressure of the blood), *"coastal zone"* (zone near the coast), *"fossil fuel"* (fuel from fossil), *"landfill"* (a fill of land).

An exocentric is a type of compound noun where the meaning cannot be directly derived from the individual parts. Neither element of the compound directly serves as the head or defines the meaning of the compound as a whole. Instead, the compound has an entirely different meaning, often metaphorical or symbolic. In exocentric compounds, the meaning is figurative or symbolic and cannot be predicted based on the meaning of the individual parts. For example: *"dustman"* (a person who collects trash, not a man made of dust), *"aftershock"* (a seismic event following an earthquake,

not a "shock" that happens after), "*off-heat*" (refers to waste heat, not something literally off the heat), etc.

In Vietnamese, compounding is also one of the most common ways to form words by combining meaningful units together. Compound words are widely used in writing and everyday life situations. They are the least understood elements of Vietnamese grammar and the morpheme sequences with two immediate constituents. Vietnamese compound nouns can be categorized into two main types based on the relationship between the components: coordinate compounds (từ ghép đẳng lập) and subordinate compounds (từ ghép chính phụ).

Coordinate compound nouns are formed by combining two words (usually nouns) that are semantically equal and reinforce or complement each other. Neither word acts as a head or modifier; they are of equal importance. Both elements of the compound holds semantic weight or the meaning of the compound is derived from the combination of both elements working together rather than one modifying the other. For example: "*cây cỏ*" (a general term for vegetation, referring to both trees and grass), "*sông suối*" (refers to both rivers and streams as water bodies), "*đất đá*" (refers to both soil and rock materials, often in construction or environmental contexts), "*chim thú*" (refers to wildlife including both birds and mammals). In these examples, both components carry equal importance and contribute equally to the meaning of the term.

On the other hand, subordinate compound nouns consist of a head noun and a modifier that specifies or refines the meaning of the head noun. The head noun is the core of the compound, and the modifier adds specific details or restrictions. For example, "*rừng ngập mặn*" (rừng = forest, ngập mặn = mangrove: refers specifically to a mangrove forest, where "rừng" (forest) is the head and "ngập mặn" (mangrove) specifies the type of forest); "*nguồn nước*" (nguồn = source, nước = water: refers to a water source, where "nguồn" (source) is the head and "nước" (water) specifies the type of source); "*chất thải*" (chất = material, thải = waste: refers to waste material, where "chất" (material) is the head and "thải" (waste) modifies it to indicate waste); "*bão nhiệt đới*" (bão = storm, nhiệt đới = tropical: refers to a tropical storm, where "bão" (storm) is the head and "nhiệt đới" (tropical) describes the type of storm); "*khí thải*" (khí = gas, thải = emission: refers to gas emissions, where "khí" (gas) is the head noun, and "thải" (emission) describes it). In these subordinate compounds, the head noun holds the primary meaning, and the modifier adds more detail or specificity.

Compound nouns in environmental texts reflect the rapid development of the environmental field, with new terms being introduced to describe emerging concepts and objects. Understanding the formation and structure of these compound nouns is crucial for grasping environmental terminology. Consequently, the study of compound nouns in English and Vietnamese environmental texts is grounded in several theoretical frameworks as follows.

The Word Formation framework, emphasizing the significance of morphological processes in language (Booij, 2005), was used to analyze the formation of compound nouns, assessing whether the compounds followed typical morphological patterns.

The Syntactic Compound Analysis framework (Plag, 2003) guided the evaluation of structural types of compound nouns, aiming to determine if the compounds adhered to common syntactic structures such as Noun + Noun, Adjective + Noun, and Verb + Noun. Additionally, this analysis is essential for understanding the head-modifier relationship.

The Semantic Features framework, integrating lexical semantics with compound analysis (Katamba, 1993), examined whether the compounds were endocentric or exocentric, aiming to determine if their meanings were directly inferred from their components or had idiomatic or metaphorical interpretations.

The Contrastive Analysis framework evaluated the effectiveness of comparing English and Vietnamese compound nouns by assessing the similarities and differences in their syntactic and semantic features (James, 1980), highlighting unique linguistic traits and commonalities.

Learner Autonomy in Linguistic Studies (Little, 2022) was analyzed to determine if the findings could empower language learners to independently understand and use compound nouns, encouraging students to actively engage with and apply them in relevant contexts.

Environmental Linguistics (Fill & Muhlhausler, 2006) assessed whether the compound nouns were contextually appropriate and contributed to effective communication within environmental texts, focusing on domain-specific vocabulary and enhancing communicative abilities.

The Pedagogical Linguistics framework (Ellis, 2012) evaluated the implications for language teaching and translation, aiming to determine if the findings aligned with effective language instruction principles, providing recommendations for educators and translators to enhance their practices.

To sum up, the study of compound nouns in English and Vietnamese environmental texts is grounded in several theoretical frameworks. By incorporating these theoretical frameworks as a solid foundation, the study aims to gather comprehensive insights into the syntactic and semantic characteristics of compound nouns in English and Vietnamese environmental texts, contributing to understanding the strengths and weaknesses of compound noun usage in both languages.

3. Research methodology

This qualitative research employed a comprehensive analysis approach to explore the syntactic and semantic features of compound nouns in English and Vietnamese environmental texts. A total of 400 compound nouns were examined, with 200 compounds sourced from English texts and 200 from Vietnamese texts. The texts were selected from reliable environmental sources to ensure relevance and accuracy.

Compound nouns were meticulously extracted from a diverse range of environmental texts, including academic articles, reports, and relevant literature, ensuring a broad representation of compound nouns used in environmental discourse.

Thematic analysis was the primary method used to examine and interpret the data, identifying recurring patterns, common syntactic structures, and key semantic features from the compound nouns in both languages. By employing thematic analysis, the research aimed to uncover the underlying syntactic and semantic characteristics and provide a comprehensive understanding of the differences and similarities between English and Vietnamese compound nouns.

A cross-linguistic comparison highlighted the unique features and commonalities between English and Vietnamese compound nouns, comparing the syntactic and semantic structures identified in both languages to provide a deeper understanding of language-specific compounding processes.

Multiple texts were analyzed to ensure the validity and reliability of the findings, with data cross-verified by comparing the extracted compound nouns with established linguistic databases and dictionaries. This triangulation method confirmed the accuracy of syntactic and semantic categorization.

To ensure the validity and reliability of the findings, multiple texts were analyzed, and the data was cross verified by comparing the extracted compound nouns with established linguistic databases and dictionaries. This triangulation method helped in confirming the accuracy of the syntactic and semantic categorization.

Overall, this research sought to provide a holistic view of the syntactic and semantic features of compound nouns in English and Vietnamese environmental texts. Through a qualitative approach, the study aimed to uncover valuable insights and generate recommendations to enhance language education, translation practices, and cross-linguistic studies.

4. Results and discussions

The findings from the analysis of compound nouns in English and Vietnamese environmental texts involved a comprehensive thematic analysis. The analysis process organized and categorized the data based on the three research questions posed in the study.

RQ1. What are the syntactic structures of compound nouns in English and Vietnamese environmental texts?

A compound noun is an expression which is made up of more than one word and functions as a noun. For example, the noun word *Earthquake* is made up from a noun “Earth” and a verb “quake”. The formation of compound nouns can be various. The research findings indicate that there are 10 different lexical categories found in English compound noun formation that can be seen in the chart below.

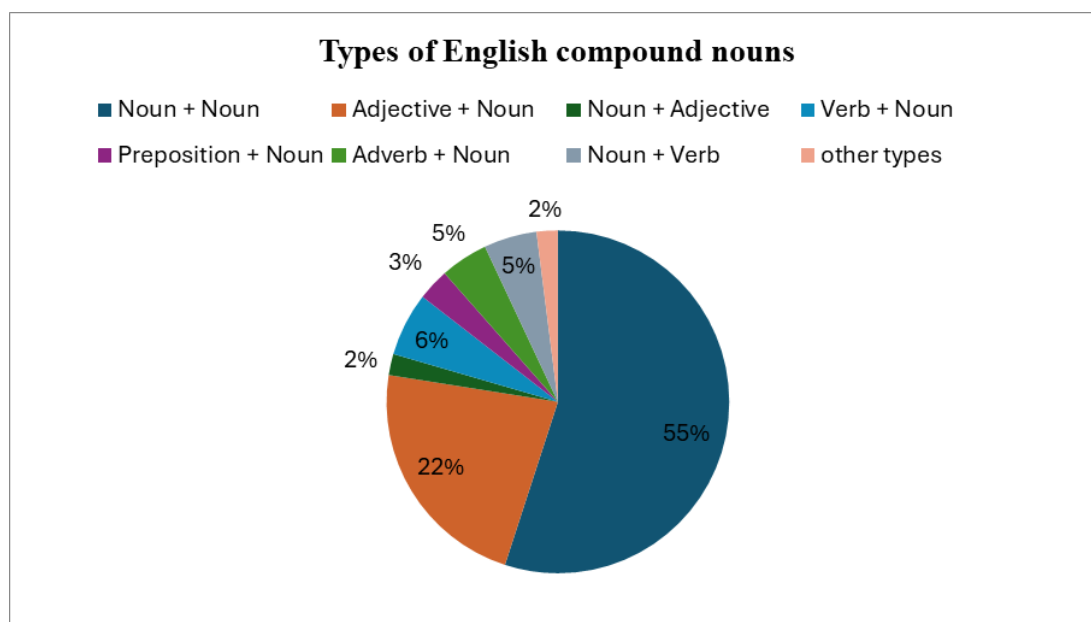


Chart 4.1. The percentage of English compound noun types

In terms of English compound nouns, it could be concluded from the data that the structure: N + N is the most dominant structure, responsible for the majority of compound nouns in environmental texts whereas the structure Adj + N with Descriptive compounds used to modify environmental terms, and the structure V + N is less common but present, providing functional descriptions. For example:

- The noun + noun structure is predominant in English environmental texts, as evidenced by examples like "*air pollution*," "*acid rain*," and "*fossil fuels*." These compounds follow the modifier-head pattern where the left-hand noun modifies the right-hand noun.

Adjective + noun structures, such as "*alternative energy*" and "*nuclear waste*," are also common. These compounds modify the head noun with descriptive adjectives.

- Verb + noun compounds, such as "*receiving waters*" and "*reducing agent*," follow the pattern where the verb acts as a modifier to the noun, indicating action or purpose.

In contrast, the research results also show that there are 6 different lexical categories found in Vietnamese compound noun formation that can be seen in the chart below.

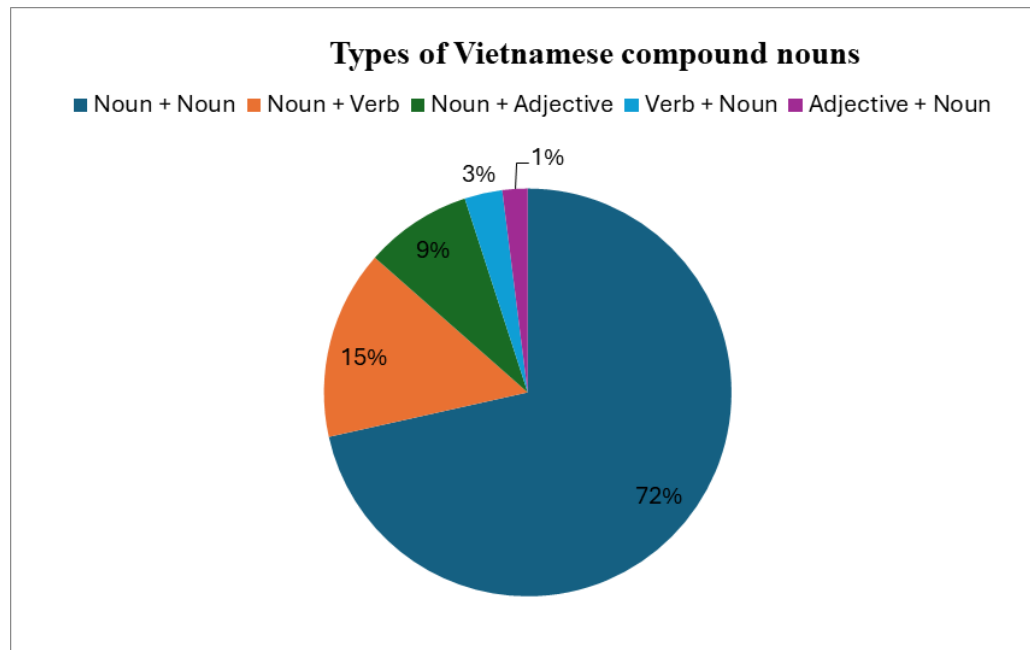


Chart 4.2. *The percentage of Vietnamese compound noun types*

Regarding Vietnamese compound nouns collected from the environment texts, it can be realized that the structure: N + N Predominantly used, but with the head as the first noun, differing from English. The structure N + V is found in specific contexts but offers more flexibility. The structure Adj + N is descriptive, which is similar to English. For example:

The noun + noun structure, such as "*ao hồ*" (lakes) and "*bờ sông*" (riverside), is also common in Vietnamese environmental texts. However, the head is often the first noun, in contrast to English compounds.

The flexibility in noun + verb structures, such as "*bệnh dịch hạch*", should be highlighted as a unique feature in Vietnamese syntax, particularly in environmental terms.

Adjective + noun structures, such as "*thảm họa thiên nhiên*" and "*nước ngọt*", follow a similar pattern to English, where the adjective describes the noun.

The syntactic structures of compound nouns in English and Vietnamese environmental texts reveal distinct patterns in both languages. English compound nouns predominantly follow a Noun + Noun structure, accounting for 55% of the compounds analyzed. Other common structures include Adjective + Noun (22%) and Verb + Noun (6%). This syntactic arrangement highlights the head-modifier relationship prevalent in English compounds, where the head noun determines the compound's grammatical category and overall meaning. Also, the compound nouns in English predominantly follow a modifier-head (right-hand) structure, with fixed word order.

It can be realized from the data that Vietnamese compound nouns also favor the Noun + Noun structure, which constitutes 72% of the compounds analyzed. However, the presence of Noun + Verb (15%) and Noun + Adjective (9%) structures reflect the language's flexibility in compound formation. Vietnamese compounds often exhibit a subordinate relationship, where one element modifies the other, adding complexity to their syntactic analysis. Vietnamese compound nouns exhibit flexibility in word order, with the head noun usually appearing first.

To summarize, the syntax of English compound nouns is generally more right-headed and fixed. The head noun typically comes last, and the modifier precedes it. This structure leads to predictable

meanings, particularly in endocentric compounds (e.g., "carbon emission", where "emission" is the head and "carbon" modifies it). In Vietnamese, subordinate compounds also follow a head-modifier structure, where the main idea (head noun) is followed by a descriptive or specifying word (e.g., "nước ngầm", where "nước" is the head and "ngầm" refines it). However, coordinate compounds in Vietnamese place equal importance on both components (e.g., "ao hồ", where "ao" and "hồ" are of equal weight).

RQ2. How do the semantic features of compound nouns differ between English and Vietnamese environmental texts?

The research findings show that in English environmental terminology, endocentric compounds are dominant, representing the majority of compound nouns accounting for 89%. These compounds are transparent in meaning, where the head noun defines the main concept, and the modifier specifies it. For example, terms like "*water bottle*" or "*solar panel*" clearly define a bottle holding water or a panel that collects solar energy. Similarly, "*wind farm*" refers to a farm generating power from wind, and "*tree canopy*" indicates the top layer of trees in a forest. Endocentric compounds are common in technical and descriptive fields like environmental science because they are straightforward and easy to interpret.

On the other hand, exocentric compounds, though less frequent, offer idiomatic or metaphorical meanings. They make up a much smaller percentage of the data (11%), often representing more abstract concepts. These compounds offer a less literal approach, making them suitable for more complex or metaphorical environmental phenomena. Thus, the difference in frequency and meaning reflects the nature of environmental language, where direct, descriptive terms are more common than metaphorical ones. For instance, "*red tide*" refers to a harmful algal bloom rather than a literal tide colored red, and "*greenhouse effect*" describes heat trapped in the atmosphere, not an effect inside a greenhouse. Similarly, "*dead zone*" refers to oxygen-deprived areas in bodies of water, and "*brownfield*" describes contaminated land rather than a literal brown-colored field. More illustrations can be clearly shown in the following chart.

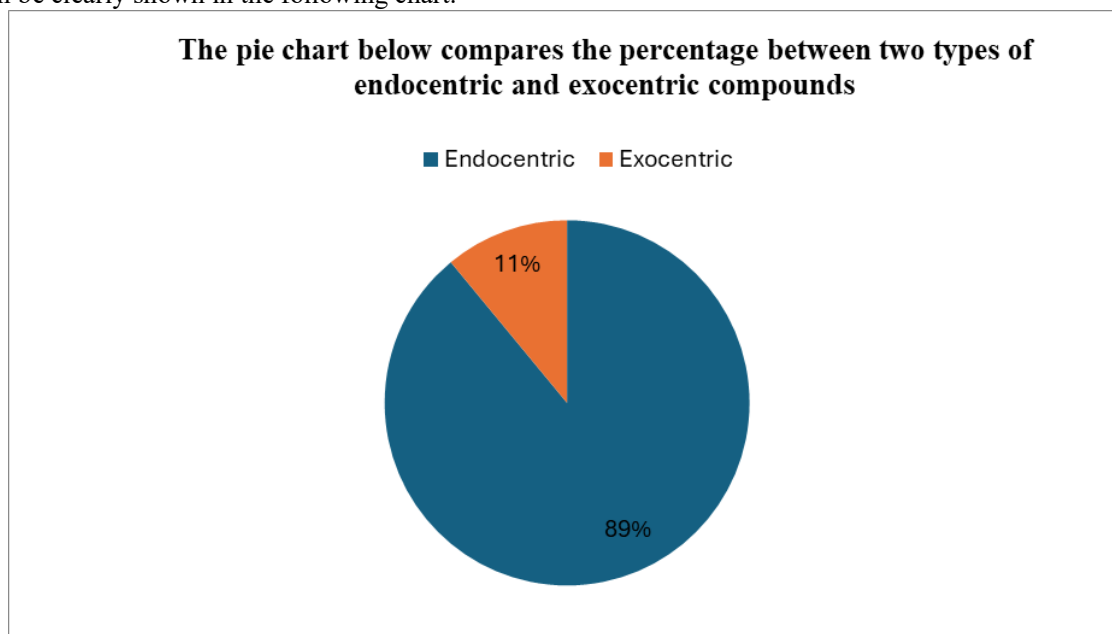


Chart 4.3. The percentage of endocentric and exocentric compound nouns in Vietnamese

Additionally, the findings reveal that in Vietnamese, subordinate compounds dominate making up 86%, representing specific relationships between a head noun and a modifier that redefines the meaning. These are highly common in environmental contexts, where specific details are required. Subordinate compounds often describe specific environmental phenomena like “*bão cát*” (sandstorms), “*khí thải*” (emissions), “*bãi rác*” (landfills), “*điện gió*” (wind electricity), “*khói bụi*” (smog), “*phân bón*” (fertilizer), “*nước thải*” (wastewater), “*thủy điện*” (hydroelectric), “*nhà kính*” (greenhouse), “*năng lượng hạt nhân*” (nuclear power), etc.

Subordinate compounds are more predominant in environmental terminology than coordinate ones due to the need for precise and specific descriptions of natural phenomena, processes, and elements. This structure is highly effective for scientific and technical communication, where accuracy is paramount. For instance, in compounds like “*khí thải*” (emissions) and “*nước ngầm*” (groundwater), the head noun (e.g., “*khí*” - gas, “*nước*” - water) is clearly defined, while the modifier (e.g., “*thải*” - emissions, “*ngầm*” - underground) specifies its exact role or characteristic. This allows for an unambiguous understanding of environmental processes and materials, essential for areas like climate science, pollution control, and resource management. For instance, by clearly distinguishing between types of gases (e.g., “*khí thải*” for emissions) and types of water (e.g., “*nước ngầm*” for groundwater), subordinate compounds ensure technical accuracy in environmental communication. Another example is “*rừng nhiệt đới*” (rainforest). Here, “*rừng*” (forest) is modified by “*nhiệt đới*” (tropical), specifying the type of forest found in tropical regions. The term is precise, enabling clear communication in ecological studies; In the compound “*năng lượng tái tạo*”, “*năng lượng*” (energy) is the head noun, and “*tái tạo*” (renewable) specifies that it is a type of energy that can be regenerated, crucial for discussions on sustainability.

On the contrary, the data indicate a negligible percentage of coordinate compounds in environmental terms accounting for 14% in Vietnamese. They represent more generalized terms where both elements carry equal semantic weight, and they are used to refer to collections or combinations of similar elements, such as: “*ao hồ*” (Lakes), “*giông bão*” (thunderstorms), “*đất đá*” (rock and soil), “*lũ quét*” (flash flood), “*rong tảo*” (algae), “*sâu bệnh*” (pest), etc.

Coordinate compounds, although less frequent in environmental terminology, serve an important role in grouping related natural elements or phenomena. These compounds convey broader, collective meanings that do not require detailed specification. For example, “*ao hồ*” (lakes) refers to both ponds and lakes without distinguishing between their specific types, while “*đất đá*” (rock and soil) collectively refers to terrestrial materials. In environmental discussions where the focus is on general categories such as wildlife, landforms, or water bodies-coordinate compounds allow for a more inclusive reference without delving into specific characteristics. This makes them useful for non-technical descriptions or when discussing broad environmental categories.

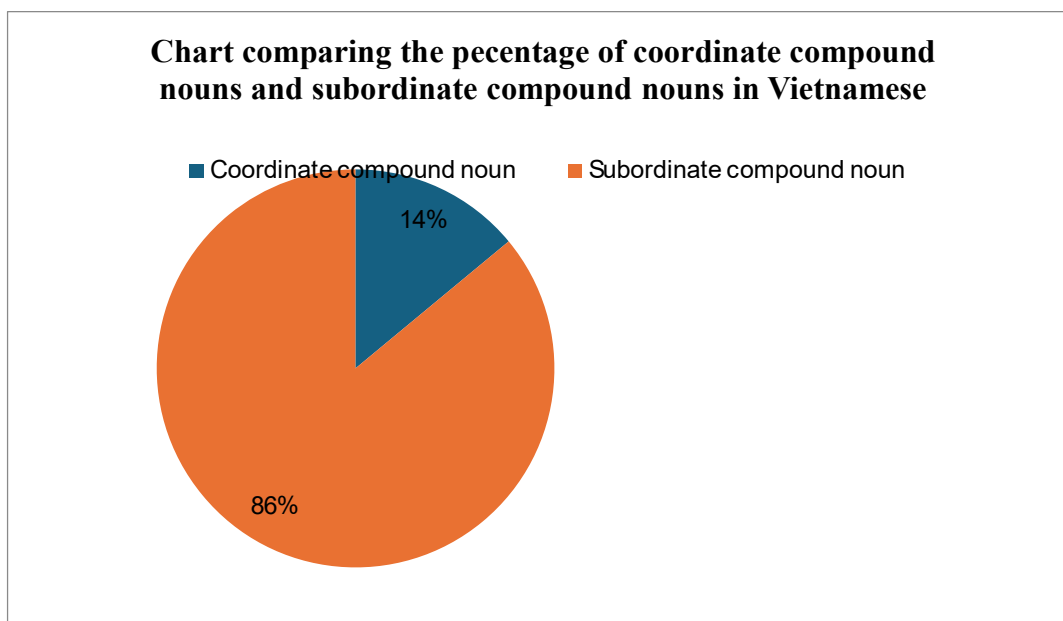


Chart 4.4. *The percentage of coordinate and subordinate compound nouns in Vietnamese*

The semantic features of compound nouns show significant differences between English and Vietnamese. In English, the majority of compound nouns are endocentric (86%), and their meanings can be inferred from the head noun. This characteristic makes English compounds relatively straightforward to understand and use once the head-modifier relationship is recognized. For example, the compound “*greenhouse*” illustrates this pattern, where the head noun (“*house*”) guides the overall meaning. This semantic transparency simplifies comprehension and usage in environmental texts.

Conversely, Vietnamese compound nouns predominantly exhibit a subordinate relationship (86%), where one element modifies the other, such as “*khí*” (gas) and “*độc*” (poisonous), with “*khí*” (gas) being modified by “*độc*” (poisonous). This structure adds layers of meaning that can be contextually dependent, reflecting the language’s nuanced approach to compound formation.

The analysis also revealed that Vietnamese compounds include a notable number of coordinate compounds (14%), where both elements are equally important and do not modify each other, such as “*ao hồ*” (lakes). This semantic diversity highlights the importance of contextual understanding in interpreting Vietnamese compound nouns.

To summarize, the semantic structure of compound nouns, especially in the environmental field, plays a critical role in conveying specific meanings efficiently in both English and Vietnamese. In English compound nouns related to environmental field, endocentric compounds dominate English environmental texts. Exocentric compounds are less common and are often used metaphorically or idiomatically. Compound nouns tend to focus on clarity and precision, especially in technical contexts like environmental science in English.

In Vietnamese, subordinate compounds are more prevalent in Vietnamese environmental texts. Vietnamese subordinate compounds often combine technical specificity with cultural and natural concepts leading to a detailed environmental term where a head noun is modified by a preceding word, adding specific detail. Coordinate compounds, although less common, are used to refer to general or collective terms.

RQ3. What are the implications of these syntactic and semantic features for language teaching, translation, and curriculum development?

The insights from this study have several implications for language teaching, translation, and curriculum development:

In Language Teaching:

English: Educators should emphasize the head-modifier structure in compound nouns, helping students understand how meaning is derived from the head noun. Teaching strategies should include exercises that focus on identifying and forming endocentric compounds to enhance comprehension and practical usage.

Vietnamese: Teachers should highlight the subordinate and coordinate structures, encouraging students to explore the modifying relationships within compounds. This approach can help learners grasp the contextual nuances and improve their language proficiency.

In Translation:

Translators should be aware of the structural and semantic differences between English and Vietnamese compound nouns. Accurate translation requires understanding the syntactic patterns and semantic relationships in both languages. For instance, translating an English endocentric compound into Vietnamese might involve shifting to a subordinate structure to preserve the intended meaning.

In Curriculum Development:

Language education curricula should incorporate detailed lessons on compound nouns, including their formation, types, and meanings. For English, the focus should be on endocentric compounds, while Vietnamese curricula should address the complexity of subordinate and coordinate compounds. These lessons can include comparative analysis exercises to deepen students' understanding of cross-linguistic differences.

In Practical Application:

The study's findings suggest that practical exercises and real-world examples from environmental texts can enhance students' ability to use and understand compound nouns effectively. Incorporating environmental vocabulary into language lessons can provide contextually rich learning experiences.

5. Conclusion

The analysis of compound nouns in English and Vietnamese environmental texts provides a deeper understanding of the syntactic and semantic complexities within these languages. By examining the structure and meaning of compound nouns, this study highlights significant differences and similarities that have important implications for language education, translation, and curriculum development.

The syntactic analysis revealed that English compound nouns predominantly follow a Noun + Noun structure with a head-modifier relationship, facilitating straightforward meaning inference. In contrast, Vietnamese compound nouns exhibit a higher frequency of subordinate relationships, adding layers of meaning and context-dependence. These findings underscore the need for tailored teaching strategies that address the unique syntactic patterns in each language. English compound nouns rely on a more fixed syntactic order (modifier-head), while Vietnamese allows for equal importance between elements in coordinate compounds.

In terms of semantic features, English compound nouns tend to be more transparent in meaning, especially with endocentric compounds. In contrast, Vietnamese subordinate compounds tend to offer more nuanced and context-specific meanings, especially in relation to nature and the environment.

While both languages use compound nouns effectively in the environmental field, the specific syntactic and semantic tendencies reflect their respective linguistic structures and cultural contexts. English focuses on technical precision, while Vietnamese combines specificity with natural and cultural expressions.

The implications for language teaching suggest that educators should emphasize the structural differences in compound nouns, providing students with the tools to understand and use these forms

effectively. For translators, a nuanced approach to translating compound nouns is necessary to maintain accuracy and meaning across languages. Curriculum developers should incorporate detailed lessons on compound noun formation and usage, facilitating a comprehensive learning experience for students.

Collaboration among educators, translators, and curriculum developers is essential to implement these findings effectively. Regular communication and feedback loops can ensure that teaching methods and materials remain responsive to the evolving linguistic landscape. By fostering a collaborative and adaptive educational environment, stakeholders can enhance the quality of language education and translation practices.

Addressing these challenges and implementing the suggested improvements can transform the teaching and learning of compound nouns in English and Vietnamese, empowering students with the necessary linguistic skills and cultural awareness to thrive in their academic and professional pursuits.

6. Limitations and suggestions for further study

This study has limitations due to its focus on environmental texts, which may not capture the full range of compound noun usage in other contexts. Additionally, the sample size, while robust, is limited to 400 compound nouns, potentially affecting the generalizability of the findings. The study also relied on text-based analysis, which may not fully represent spoken language usage.

Future research should consider expanding the scope to include compound nouns from various domains, such as technology, medicine, and business. Comparative analyses across different types of texts and regions can provide a more comprehensive understanding of compound noun usage. Engaging a broader range of stakeholders, including language learners and translators, can offer additional perspectives and insights.

Longitudinal studies tracking the acquisition and usage of compound nouns over time would be valuable. Such studies could reveal how learners' understanding evolves and the factors that influence their mastery of compound nouns. Exploring the integration of technology and blended learning approaches can also enhance language education, making it more interactive and accessible.

Focusing on teacher training and professional development is crucial to ensure that educators are equipped with the latest methodologies and resources for teaching compound nouns. Investigating student engagement and motivation in learning compound nouns can provide insights into effective instructional strategies. Comprehensive curriculum evaluations with continuous feedback mechanisms will help in refining and improving language education programs.

These research directions will contribute to a more holistic understanding of compound noun usage and inform educational practices, ultimately enhancing language learning and translation accuracy.

REFERENCES

1. Akmajian, A., Demers, R. A., & Harnish, R. M. (2010), *Linguistics: An introduction to language and communication*. MIT Press.
2. Bauer, L. (2004), *English word formation*. Cambridge: Cambridge University Press.
3. Bauer, L. (2009), A typology of compounds. In R. Lieber & P. Stekauer (Eds.), *The Oxford handbook of compounding* (pp.343-356). Oxford University Press.
4. Bauer, L., & Huddleston, R. (2002), Lexical word formation. In R. Huddleston & J.K. Pullum (Eds.), *The Cambridge grammar of the English language* (pp.1631-1721). Cambridge: Cambridge University Press.
5. Bauer, L., & Plag, I. (2013), *The Oxford reference guide to English morphology*. Oxford: Oxford University Press.
6. Booij, G. (2005), *The grammar of words: An introduction to linguistic morphology*. Oxford University Press.

7. Christianto, D. (2019), Compound words in English. *LLT Journal: A Journal on Language and Language Teaching*, 23(1), 43-54. <https://doi.org/10.24071/llt.2020.230103>.
8. Dressler, W. U. (2006), Compound types. In G. Libben & G. Jarema (Eds.), *The representation and processing of compound words* (pp.23-44). Oxford: Oxford University Press.
9. Ellis, R. (2012), *Language teaching research & language pedagogy*. Australian Review of Applied Linguistics, 39(1), pp.95-98.
10. Fill, A., & Muhlhausler, P. (2006), *Ecolinguistics reader: Language, ecology, and environment*. A&C Black.
11. Hamad, O. H. (2016), A contrastive analysis of compound noun formations in English and Kurdish. *International Journal of English Linguistics*, 6(4), pp.44-56. <https://doi.org/10.5539/ijel.v6n4p44>.
12. Katamba, F. (1993), *Morphology*. Macmillan Press.
13. Krediler, A. (2002), The study of semantics: Meaning in language. *Journal Name*, Volume(Issue), 1-20.
14. Millaku, S., & Topanica, N. (2016), The compound nouns between English and Albanian languages. *Journal of Comparative Linguistics*, 10(3), pp.54-68.
15. Plag, I. (2003), *Word-formation in English*. Cambridge University Press.
16. Quirk, R., Greenbaum, S., Leech, G., & Svartvik, J. (1985), *A Comprehensive Grammar of the English Language*. London: Longman.
17. Rahadiyanti, F. (2017), *An analysis of compound words in political articles of Strategic Review Magazine* (Undergraduate thesis). State Islamic University, Indonesia.
18. Rumiyati, R. (2015), *An analysis of compound words in the novel "The Single Girls' To-Do List" by Lindsey Kelk* (Undergraduate thesis). Sanata Dharma University, Yogyakarta.
19. Vogel, P. (2007), *English Compounds and their Spelling Variations*. Hamburg: Helmut Buske Verlag.

Một nghiên cứu đối chiếu danh từ ghép trong một số văn bản tiếng Anh và tiếng Việt về môi trường

Tóm tắt: Nghiên cứu này thực hiện phân tích đối chiếu danh từ ghép trong các văn bản tiếng Anh và tiếng Việt liên quan đến môi trường, nhằm xác định sự tương đồng và khác biệt về cú pháp và ngữ nghĩa. Bằng cách xem xét 400 danh từ ghép (200 từ mỗi ngôn ngữ) được lấy từ các văn bản môi trường đáng tin cậy, nghiên cứu cung cấp cái nhìn toàn diện về các đặc điểm cấu trúc và ngữ nghĩa của danh từ ghép trong hai ngôn ngữ này. Danh từ ghép tiếng Anh chủ yếu tuân theo cấu trúc nội sinh, với danh từ chính quyết định ý nghĩa tổng thể, trong khi danh từ ghép tiếng Việt chủ yếu biểu hiện mối quan hệ phụ thuộc, trong đó một thành phần bổ sung cho thành phần kia. Nghiên cứu cho thấy rằng danh từ ghép Noun + Noun là phổ biến nhất trong cả hai ngôn ngữ, mặc dù vai trò cú pháp và ngữ nghĩa của chúng khác nhau đáng kể. Hơn nữa, nghiên cứu nhấn mạnh tầm quan trọng của việc hiểu rõ những sắc thái ngôn ngữ này đối với giáo viên, dịch giả và người học ngôn ngữ. Các khuyến nghị cho nghiên cứu trong tương lai bao gồm khám phá danh từ ghép trong các lĩnh vực chuyên môn khác, điều tra các đặc điểm ngữ dụng và thực hiện các so sánh liên ngôn ngữ. Các phát hiện đóng góp vào việc hiểu sâu hơn về sự hình thành và sử dụng danh từ ghép, cung cấp những hiểu biết quý giá để nâng cao giáo dục ngôn ngữ và thực hành dịch thuật trong cả bối cảnh tiếng Anh và tiếng Việt.

Từ khóa: danh từ ghép; tiếng Anh; tiếng Việt; văn bản môi trường; cú pháp; ngữ nghĩa.