

# CRACKING THE CODE: NOUN PHRASE COMPLEXITY IN EFL STUDENT COMPOSITIONS

Chipta Sakti Parawali<sup>1</sup>, Siska Bochari<sup>2</sup>, Darmawan<sup>3</sup>, Sudarkam R. Mertosono<sup>4</sup>

<sup>1</sup>Universitas Tadulako Kota Palu, Indonesia, e-mail: [chiptasaktip@gmail.com](mailto:chiptasaktip@gmail.com)

<sup>2</sup>Universitas Tadulako Kota Palu, Indonesia, e-mail: [siska.bochari@gmail.com](mailto:siska.bochari@gmail.com)

<sup>3</sup>Universitas Tadulako Kota Palu, Indonesia, e-mail: [darmawan.untad@gmail.com](mailto:darmawan.untad@gmail.com)

<sup>4</sup>Universitas Tadulako Kota Palu, Indonesia, e-mail: [srmertosono@gmail.com](mailto:srmertosono@gmail.com)



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## Abstract

This research investigates the dominant noun phrase patterns used by EFL students and identifies the challenges they face in constructing complex noun phrases. A descriptive quantitative design was applied, involving third-semester EFL students majoring in English Education at Tadulako University. Data were collected through tests and questionnaires, validated using the SPSS program to ensure reliability. Results reveal that the most frequently used noun phrase pattern is determiner + noun, accounting for 35% of the total noun phrases produced by students. In contrast, the least utilized pattern is premodifier + noun + postmodifier, representing only 1%. The analysis indicates that sociocultural factors, particularly students' linguistic environments, significantly influence their ability to construct complex noun phrases. Addressing these challenges may involve implementing inclusive curricula and culturally responsive teaching strategies. The findings have implications for curriculum design, emphasizing the need to enhance instructional materials and provide targeted practice to improve students' mastery of complex noun phrase structures.

**Keywords:** noun phrase, complexity, pattern, difficulty factors.

## Abstrak

Penelitian ini mengkaji pola frasa nomina yang dominan digunakan oleh mahasiswa EFL dan mengidentifikasi tantangan yang mereka hadapi dalam membentuk frasa nomina kompleks. Desain penelitian yang digunakan adalah deskriptif kuantitatif, dengan melibatkan mahasiswa EFL semester tiga yang mengambil jurusan Pendidikan Bahasa Inggris di Universitas Tadulako. Data dikumpulkan melalui tes dan kuesioner yang divalidasi menggunakan program SPSS untuk memastikan keandalannya. Hasil penelitian menunjukkan bahwa pola frasa nomina yang paling sering digunakan adalah determiner + noun, yang mencakup 35% dari total frasa nomina yang dihasilkan oleh mahasiswa. Sebaliknya, pola yang paling jarang digunakan adalah premodifier + noun + postmodifier, dengan hanya 1%. Analisis menunjukkan bahwa faktor sosiokultural, terutama lingkungan bahasa mahasiswa, memiliki pengaruh signifikan terhadap kemampuan mereka dalam membentuk frasa nomina kompleks. Mengatasi tantangan ini dapat dilakukan dengan menerapkan kurikulum yang inklusif dan strategi pengajaran yang responsif secara budaya. Temuan ini memiliki implikasi terhadap desain kurikulum, dengan menekankan perlunya peningkatan materi pembelajaran dan pemberian latihan yang terarah untuk meningkatkan penguasaan mahasiswa terhadap struktur frasa nomina kompleks.

**Kata Kunci:** frasa kata benda, kompleks, pola, faktor kesulitan.

## 1. Introduction

Syntax is a core area of linguistics that focuses on how sentences are formed and constructed into more complex structures (Wu and Lu 2024). It governs the arrangement of words, phrases, and clauses according to grammatical rules (Gleason 1961). Essentially, syntax determines how smaller linguistic units combine to create meaningful and grammatically correct sentences.

A sentence, defined as a cluster of words conveying meaning, represents the largest linguistic unit used to express statements, questions, or commands (Hornby et al. 2015; Oshima and Hogue 1991). Sentences typically consist of a subject, verb, and a complete thought (Fitria 2022).

They are essential for daily communication and writing. Within sentences, words, phrases, and clauses serve as foundational elements, making them significant for this research.

Words are the smallest units within a sentence after morphemes (Trisnanda and Indriani 2021). These words can be categorized into nine grammatical groups: nouns, pronouns, verbs, adverbs, adjectives, prepositions, conjunctions, interjections, and determiners (Ahmad 2022; Oliva, Meehan, and Colombres 2019). Clauses, which contain a subject and verb but may lack a complete meaning, represent smaller segments of sentences (Hidayah, Bochari, and Jamiluddin 2024; Maillart et al. 2017). Phrases, on the other hand, can be identified by their head (Sinnemäki and Haakana, 2023; Preda, 2020). Different types of phrases include noun phrases (NP), verb phrases (VP), prepositional phrases (PP), adjective phrases (AP), and adverbial phrases (AdvP).

A noun phrase (NP) is a phrase in which a noun functions as the central head (Kartika and Mulyadi 2024; Wijaya et al. 2022). A complex noun phrase consists of three components: pre-modifier, noun (head), and post-modifier (Jackson 1988). Pre-modifiers include adjectives, nouns, identifiers, and quantifiers, while post-modifiers can take the form of prepositional phrases or clauses (Casalicchio and Cordin 2020; Dartey 2023; Junaid 2018). The arrangement of these components results in noun phrase patterns, categorized into eight types: noun; determiner + noun; premodifier + noun; determiner + premodifier + noun; noun + postmodifier; determiner + noun + postmodifier; premodifier + noun + postmodifier; and determiner + premodifier + noun + postmodifier (Nelson, G., & Greenbaum 2015).

Understanding noun phrase complexity is crucial for enhancing students' writing skills. Mastery of noun phrase patterns allows students to produce more detailed and descriptive writing (Dartey 2023). However, many students struggle to construct complex noun phrases, often relying on basic patterns such as determiner + noun (e.g. Mauliddia and Megawati 2021). This results in repetitive and simplistic writing, limiting their ability to convey nuanced descriptions.

The increasing occurrence of simplistic writing highlights the need to investigate this issue further. This study seeks to address the gap by exploring the dominant noun phrase patterns used by EFL students and identifying the difficulties they encounter in constructing complex noun phrases. While previous studies (Jitpraneechai 2019) have compared Thai and Native English students in constructing complex noun phrases, this research focuses specifically on assessing the writing of EFL students and identifying dominant patterns. Additionally, studies such as Lan et al (Lan et al. 2022) have examined differences between L1 and L2 learners, but this research employs a different design by emphasizing the challenges faced by EFL students. By addressing the sociocultural factors influencing students' writing, this study aims to provide insights that could inform inclusive curriculum development and targeted instructional strategies, ultimately enhancing students' proficiency in constructing complex noun phrases.

## 2. Method

This research utilized a quantitative descriptive method. This method required the researchers to gather, analyze the data, and show the frequency in a figure (Creswell and Creswell 2018; Ochoa-Pachas 2021). The data in this research are shown by detailed descriptions of the frequency of each figure. This research showed the frequency of which pattern students dominantly utilized to construct their noun phrases and which factors affected them. This study

only focuses on noun phrase pattern to prove that whether the students from different background are able to utilize a complex noun phrase or not.

The population of this research consisted of the EFL students from Tadulako University that enrolled in English Department. This research observed the students that registered in Text Type Writing class to gather a relevant data. In order to collect appropriate information, this study observed the students enrolled in the Text Type Writing course. According to the study plan, the third semester students are the ones currently enrolled in this program. Students in this class are required to be able to describe people, places, objects, or events in detail which was in sync with the focus of this study which to see whether the students were able to utilize a complex noun phrase. As a result, the researchers decided to use this population as the research sample. The method of sampling utilized in this study was simple random sampling to carefully interpret the samples from the population (Tajik and Golzar 2022) since it ensures that each of the class have their representation on this study. The population were:

**Table 1.** Research Population

Class	Number of Students
A	40
B	40
C	39
D	39
E	39
F	39
<b>Total</b>	<b>236</b>

The researchers then calculated the sample size using the Slovin formula. Slovin formula helps researchers ensure that the sample size is large enough to accurately represent the population, without having to include the entire population. 148 students out of 236 made up the entire sample, with a 5% margin of error.

Tests and questionnaires were the instruments used in this research. The first research question was addressed by the test which instructed the students to describe the 5 pictures and their current circumstances. The test only used to analyze the first research question since the researchers need to find out the pattern but did not limit the findings since the questionnaire covered the second question. The second research question was addressed by the questionnaire. The purpose of the questionnaire was to identify the factors that contributed to the students' challenges when creating complex noun phrases. Students' learning of English was influenced by linguistic, sociocultural, and personality factors (Brown 2000). In order to determine whether those factors also influenced students' ability to construct complex noun phrases, the researchers made this choice. Each of the factors have each of the concern in them. Linguistic factor can be seen by the understanding of each student. Sociolinguistic factor can be observed by looking through each of the students' background and also their current educational facility. Lastly, personality factors can be seen through each of the students' determination on studying.

There are several steps in data collection and data analysis for both the test and questionnaire. For the test, the researchers distributed the test to 148 students acting as a sample. Then, the researchers examined the data gathered and selected the data that had a correct sentence. Next, the researchers identified the pattern of the noun phrase complexity. Lastly, the researchers counted the most dominant pattern utilized by the students to construct their noun phrases. For the questionnaire, the researchers provided a list of questions that will be distributed via Google Form to be answered by the students. Then, the researchers shared the link to the 50 respondents which was tested to a SPSS validity and reliability of statement test. The researchers then reshared the valid and reliable questions to 148 students. After all of the students answered the questionnaire, the researchers sorted out the data. Lastly, the researchers listed the answers to find out which factor affected the students the most.

### 3. Results and Discussion

#### 3.1 Results

##### 3.1.1 Test

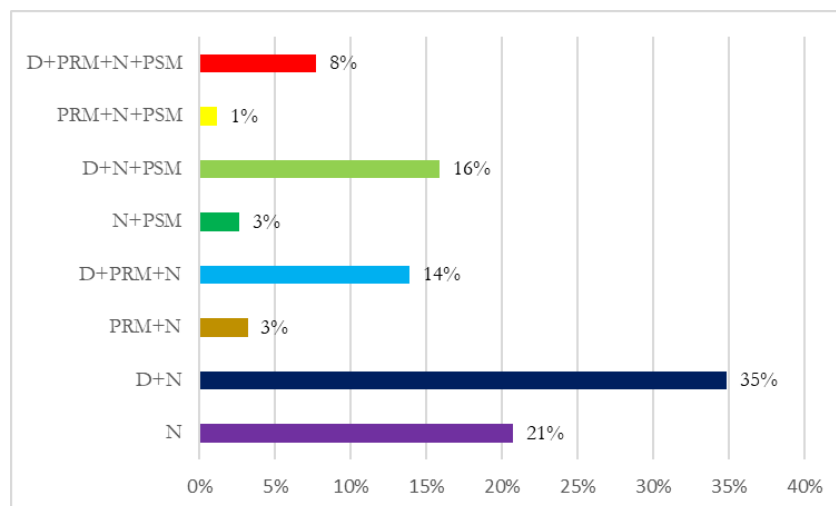


Figure 1. The Percentage of Patterns

Figure 1 showed the total percentage of all the noun phrases constructed as an answer for test combined. 21% of the noun phrases were constructed using the first pattern (noun). The second pattern (determiner + noun) used to make 35% of the noun phrases. The third pattern (premodifier + noun) had 3% noun phrases. The fourth pattern (determiner + premodifier + noun) utilized to make 14% noun phrases. The fifth pattern (noun + postmodifier) had 3% noun phrases. Thus, the sixth pattern (determiner + noun + postmodifier), utilized by the students to make 16% of the noun phrases. 1% noun phrases were made using the seventh pattern (premodifier + noun + postmodifier). Therefore, the eight pattern (determiner + premodifier + noun + postmodifier) had 8% of noun phrases.

### 3.1.2 Questionnaire

**Table 2.** Result of Validity Test

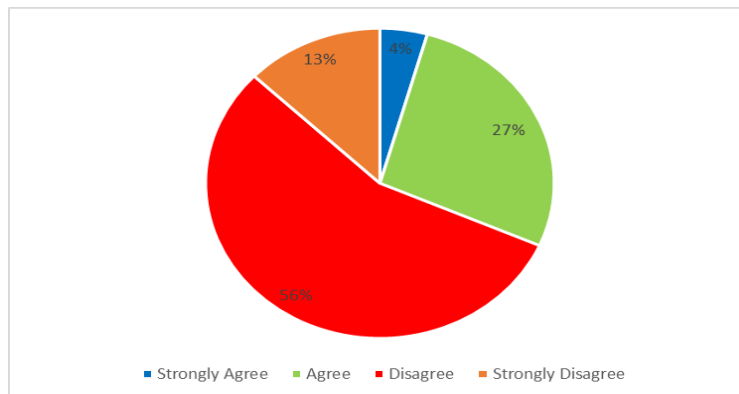
Question Number	Question Sig	Standard Sig	Status of Validity
Variable 1: Personality Factor			
Q5	0.001	0.05	VALID
Q7	0.003	0.05	VALID
Q10	0.006	0.05	VALID
Q12	0.025	0.05	VALID
Variable 2: Sociocultural Factor			
Q22	0.003	0.05	VALID
Q23	0.04	0.05	VALID
Q25	0.038	0.05	VALID
Q28	0.029	0.05	VALID
Q29	0.027	0.05	VALID
Q30	0.033	0.05	VALID
Q31	0.006	0.05	VALID
Q33	0.00005	0.05	VALID
Q34	0.005	0.05	VALID
Q38	0.00006	0.05	VALID
Variable 3: Linguistic Factor			
Q42	0.001	0.05	VALID
Q43	0.00003	0.05	VALID
Q44	0.00006	0.05	VALID
Q45	0.00007	0.05	VALID
Q46	0.000004	0.05	VALID
Q47	0.015	0.05	VALID
Q48	0.00003	0.05	VALID
Q49	0.00004	0.05	VALID
Q50	0.003	0.05	VALID
Q51	0.000008	0.05	VALID
Q52	0.002	0.05	VALID
Q53	0.001	0.05	VALID
Q54	0.00006	0.05	VALID
Q55	0.009	0.05	VALID
Q56	0.009	0.05	VALID
Q57	0.00007	0.05	VALID
Q58	0.00009	0.05	VALID
Q59	0.000001	0.05	VALID
Q60	0.0002	0.05	VALID

**Table 3.** Result of Reliability Test

Cronbach's Alpha	Standard	Status of Reliability
0.849	0.6	Reliable

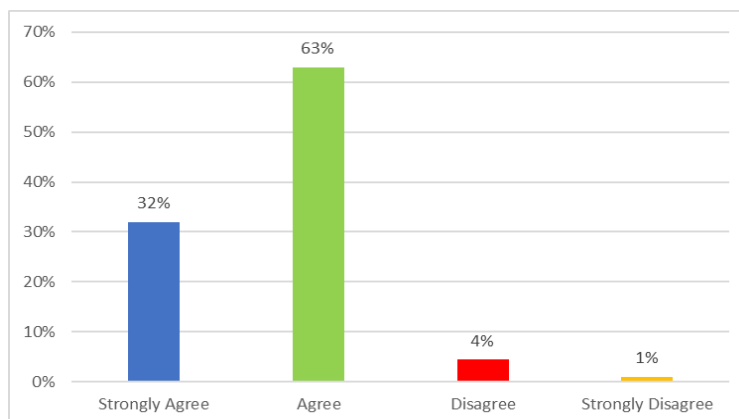
Table 2 showed the valid questions from each variable. The researchers utilize the SPSS Validity Program. After the questions answered by the students, the researchers tested the validity

and sorted out the valid questions. There are 33 valid questions out of 60 questions. Variable one has four questions valid. Variable two has 10 valid questions. Therefore, variable three has 19 valid questions. Table 3 indicated that the signature of the questionnaire was greater than the standard meaning the questionnaire is reliable. The results of the questionnaire from each variables can be seen from the figures below:



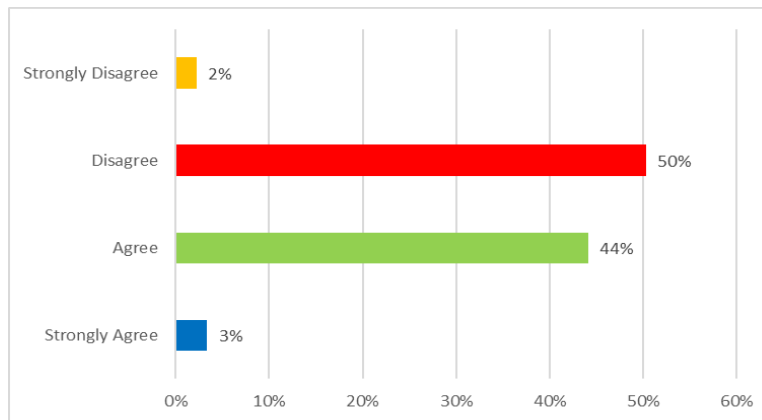
**Figure 2.** The Percentage of Students' Answer from Variable 1

Variable 1 was based on the personality factor on why the students cannot make a complex noun phrase. According to the figure, 13% of responses strongly disagreed with the statements, while 56% of responses disagreed with them.. There are also 27% of answer that agree and 4% that strongly agree on personality is the problem factor on why the students cannot create a more complex noun phrases.



**Figure 3.** The Percentage of Students' Answer from Variable 2

The sociocultural factor served as the basis for the second variable. The purpose of the statements on this variable was to determine how students' educational background and current learning environment impact their capacity to construct complex noun phrases. The frequency of responses on this variable was displayed in Figure 3. Regarding this variable, 32% of respondents strongly agree with the statement, while 63% of respondents agree. As a result, 4% of respondents disagree with this statement, and 1% strongly disagree.



**Figure 4.** The Percentage of Students' Answer from Variable 3

This variable discussed how students' construction of noun phrases is influenced by linguistic factors. The linguistic factor statements addressed the students' comprehension of the components of noun phrase complexity. According to the table, 44% of respondents agree with the statement, and 3% strongly agree with it. Additionally, 2% of the responses were strongly disagreeing, and 50% of the responses disagreed.

### 3.2 Discussion

Finding the most dominant noun phrase complexity combination that the students employed is the first research question. According to the data, determiner + noun is the most dominant pattern, accounting for 35% of the noun phrases that were created using it. This occurred as a result of the students' primary focus being on simple sentences and their lack of interest in providing further details about noun phrases. This also occurred because students did not understand that premodifiers can be doubled or more depending on their class, nor did they understand how to use other words to modify the head noun.

To see the similarity and the difference of this study to the other, the researchers found some research studies that have the same result. The first research was conducted by Mauliddia & Megawati (2021). The findings of this research found that the most dominant noun phrase complexity pattern used by recount genres on the First Year Senior High School Students' Textbooks is also determiner + noun. Their research have the same findings with this research but with different sample. Other research conducted by Junaid (2018). This research found that there are two pattern that dominate the test. Those two patterns are identifier + head with 27.4% and quantifier + head 17.6%. The findings can be concluded that determiner + noun pattern is the most dominant pattern with 45%. Their research have the same findings but different theory.

The responses gathered from the questionnaire can be used to determine the students' difficulties in creating a complex noun phrase. From each variable, the identification is visible. Their ability to construct a complex noun phrase is impacted by negative statements about their personality found in the first variable, personality factor. Positive statements that could affect their ability are found for the sociocultural and linguistic factors, the second and third variables. The researchers came to the conclusion that, with 95% of students agreeing that their environment has the greatest impact on their ability to construct complex noun phrases, the sociocultural factor is the first factor that has the greatest impact. With 52% of students

responding that they disagree or strongly disagree with the statements, the linguistic factor is the second factor that also has an impact on them. These factors can be addressed by constructing a more interactive yet inclusive curriculum.

The result of this study can help the students recognize and learn more about the pattern of a complex noun phrase and can implement it to their writing. This will help the students who struggle with constructing a complex noun phrase, construct their own technique to learn about it. Teachers and lecturers can also integrate the result of this research to their teaching. It will help their teaching be more precise and can also improve students' writing ability by integrating this research findings into their instructional approaches. This study can also be integrated in making a study lesson plan because it shows the difficulties faced by the students. One of the teaching idea suggested by the researchers is project based learning where the students need to describe as precise as possible to gain more points.

#### 4. Conclusion

The researchers conclude that the most dominant pattern that utilized by the students to make noun phrase in determiner + noun with 35% noun phrases out of 100%. The least noun phrase pattern used by the students is premodifier + noun + postmodifier with 1% noun phrases out of 100% noun phrases.

Additionally, the researchers identified the factors that influence students' difficulties when constructing complex noun phrases. According to the findings, 95% of students agree or strongly agree that sociocultural factors have the biggest impact on them, the examples are the social background and the study facility. With 52% of students responding that they disagree or strongly disagree with the statements, the linguistic factor is the second factor that also has an impact on them.

This study can serve as a foundation and a point of reference for similar future research on noun phrase complexity, including the structure used to create the pattern. This study can also serve as a foundation for future research on how students construct complex noun phrases after receiving individualized instruction using their own learning resources. This study can also help determine which teaching strategies can be implemented and used optimally in teaching noun phrase.

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