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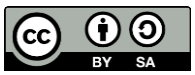

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English Syntax Learning; Student Errors in Analyzing Sentence Structure through Tree Diagrams

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Abstract

This study aims to identify errors that are often made by 5th semester English language students in completing tree diagram assignments, especially in analyzing sentence structures in the Syntax course. The method used in this study is a descriptive qualitative approach, with data analysis techniques in the form of content analysis of 22 students who were divided into 10 groups to work on the task of making tree diagrams from English news texts from various sources. Based on the analysis, several types of main errors were found, namely errors in identifying word categories (168 words), incorrect node labeling (42 node labeling), and incorrect application of phrase structures (11 phrase structures). In addition, students also have difficulty in understanding the hierarchical relationship between syntactic elements, such as the correct placement of determiners and auxiliary verbs. These errors are often caused by a lack of understanding of basic word categories and the underlying syntactic rules. This study reveals that making tree diagrams requires a deep understanding not only of syntactic theory, but also its practical application in everyday sentence analysis. Errors in node labeling and errors in syntactic category identification indicate the need for a more contextual and deeper understanding-based learning approach.

Keywords: *English; Syntax; Tree Diagram*

Introduction

Syntax is a branch of linguistics that studies how words are structured into phrases, clauses, and sentences (Tahang et al., 2019)t. Syntax focuses on the rules and principles that govern sentence structure, allowing language users to produce utterances that are not only grammatically correct but also meaningful (Ada & Chukwuokoro, 2024). In syntax, sentence structure is analyzed by identifying sentence components and the relationships between them, which reflect the complexity of language (Djalolovna, 2024). Therefore, syntax is an important aspect in a deep understanding of grammar, especially for English students who study linguistics as a foundation for their language skills.

In learning syntax, one effective method for visualizing sentence structure is through the use of a tree diagram. A tree diagram, as explained by Radford (2009) in (Ruixi, 2024), is a graphical representation that breaks down a sentence into its constituents, such as words, phrases, and clauses, while showing the syntactic relationships and underlying rules. This diagram provides a hierarchical picture of how elements in a sentence relate to each other based on phrase structure rules (Nuriyanti, 2022). In the learning process, tree diagrams help students understand the complex relationships between words and phrases, so they can identify basic and derived structures in sentences more easily (Ali et al., 2023).

The tree diagram model was first introduced by Noam Chomsky, a prominent linguist, in order to develop the theory of transformational-generative grammar in the late 1950s, In his famous book, "Syntactic Structures" (1957) (Miller, 2008), Chomsky introduced a systematic way to analyze and represent sentence structures using tree diagrams.

Tree diagrams are part of Chomsky's generative approach, which aims to show how grammar rules can generate sentence structures from basic elements (such as words and phrases). This model emphasizes hierarchy and recursivity, two key aspects of syntax, to describe the relationships between constituents in a sentence (Mara, 2023).

Before Chomsky, there was a similar diagrammatic approach known as Reed-Kellogg diagrams (introduced by Alonzo Reed and Brainerd Kellogg in the 19th century). However, Reed-Kellogg diagrams are more linear and less concerned with structural hierarchy than Chomsky's more modern tree diagrams based on formal linguistic theory. Thus, Chomsky is considered a key figure in introducing and popularizing the tree diagram model in modern linguistics (McClumpha & Grote, 2016).

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Here are the tree diagram image standards:

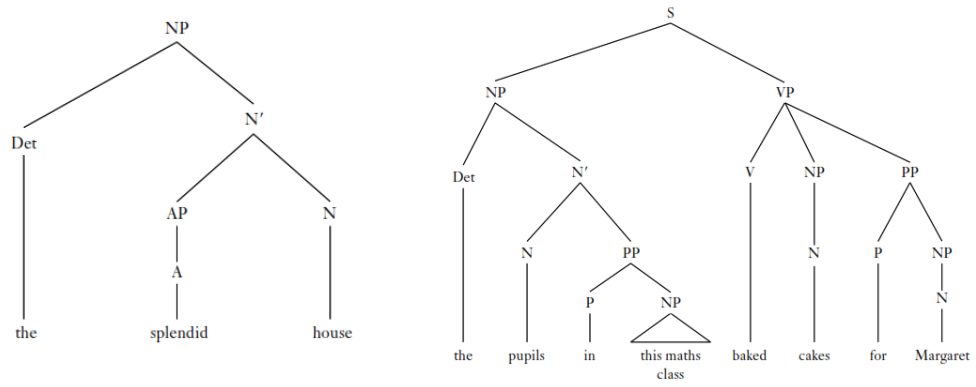

Figure 1. Tree Diagram for phrase and sentence (Miller, 2008)

Tree diagrams play an important role in honing students' analytical skills in sentence structure (Cahyani, 2019). This visual representation not only facilitates understanding of hierarchical relationships but also allows for systematic error identification. However, for students, the process of constructing tree diagrams is often challenging, especially when they have to understand abstract concepts such as syntactic categories, phrase structure rules, or derived elements (Han, 2024). Therefore, learning syntax through tree diagrams requires an approach that is not only theoretical but also practical, so that students can master analytical and application skills in analyzing sentence structures effectively.

However, despite its importance, many students face difficulties in mastering tree diagram construction. This process requires a deep understanding of syntactic rules, word categories, and hierarchical relationships between elements in a sentence. Culicover's (2017) research shows that this difficulty is often caused by students' lack of understanding of the basics of syntax, such as recognizing word categories (parts of speech) and phrase structure rules (Culicover et al., 2017). As a result, errors such as misidentifying word categories, mislabeling nodes, or misunderstanding the relationships between sentence elements are common. These errors not only hinder students' understanding of syntactic concepts but also reduce their ability to analyze and construct sentences that are in accordance with grammatical rules (Andrianova et al., 2023). One of the main problems faced by students in constructing tree diagrams is determining the word category (part of speech) correctly.

Many students are still confused in classifying certain words as nouns, verbs, adjectives, adverbs, conjunctions, or other categories. This error often occurs in words that have dual functions or whose use depends on the context of the sentence (Ismahani et al., 2024). For example, the word "run" can function as a verb

in "She runs every morning" or as a noun in "It's a long run." This error in identifying the function of the word makes it difficult for students to determine the position of the word in the hierarchical structure of the tree diagram, which ultimately affects the accuracy of their analysis (SYARIF, 2017).

In addition, students often face difficulties in understanding the phrase structure rules that are the basis for constructing tree diagrams. Many of them do not understand the hierarchical relationship between the main constituents, such as between determiners (Det) and noun phrases (NP) or between auxiliary verbs and verb phrases (VP). This error causes students to mislabel nodes in the tree diagram, which leads to incorrect syntactic interpretations. In addition, the lack of systematic practice and guidance in learning the hierarchical structure of sentences also contributes to the errors. Thus, a more effective learning approach is needed, such as the use of context-based exercises and direct guidance, so that students are able to identify word categories and understand phrase structure rules better.

The 5th semester English students, who were the subjects of this study, are expected to have basic knowledge of syntax and adequate skills in constructing tree diagrams. This study specifically focuses on 5th-semester English students because, at this stage, they are expected to have a foundational understanding of syntax and possess adequate analytical skills to construct tree diagrams. According to the curriculum structure, 5th-semester students have already completed introductory courses on linguistics and grammar, making them suitable participants for examining common errors in advanced syntax learning. However, despite their prior exposure to syntactic concepts, repeated errors indicate persistent challenges in mastering tree diagram construction, necessitating a more in-depth investigation into their difficulties and learning needs.

The purpose of this study is to identify the types of errors often made by 5th semester English students in constructing tree diagrams, analyze the factors causing difficulties, and find pedagogical solutions to improve their abilities in learning syntax. While theoretical knowledge of syntax provides students with the foundational principles of sentence structure, practical application through tree diagrams is crucial for reinforcing their understanding. The generative approach introduced by Chomsky serves as the theoretical framework for analyzing sentence structure hierarchically, while tree diagrams offer a practical tool to apply these theoretical concepts in real-world linguistic analysis (Mara, 2023).

By integrating structured exercises that require students to construct and correct tree diagrams, this study aims to bridge the gap between theoretical knowledge and practical application. In conclusion, the purpose of this study is to identify the types of errors often made by 5th-semester English students in constructing tree diagrams, analyze the factors causing difficulties, and find pedagogical solutions to improve their abilities in learning syntax. This study aims to uncover problems such as errors in determining word categories, labeling nodes,

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and applying phrase structure rules, which often become obstacles in understanding the hierarchical structure of sentences. Additionally, this study seeks to develop more effective learning strategies, such as the use of context-based exercises and direct guidance, to enhance students' understanding of syntactic relationships and improve their overall competency in syntax analysis.

Method

This study uses a qualitative descriptive method to identify and analyze common errors made by 5th semester students in constructing tree diagrams in the English study program at STKIP AL Maksum, Langkat, Indonesia in 2024. This research lasted for 2 months, from August to September 2024, covering the process of data collection, analysis, and validation of findings. The research participants consisted of 22 English study program students who took the syntax course, selected purposively based on their knowledge of the construction of tree diagrams that had been taught and divided into 11 groups. Each group was assigned to create a tree diagram obtained from online media news in English. Each group was given the task of compiling a tree diagram based on sentences taken from English news texts obtained from credible sources, such as the BBC, The Guardian, and The New York Times.

The selection of news texts was based on several criteria, namely the authenticity of the source, the diversity of syntactic structures, relevance to current issues, and lexical variations that include various complex phrases and clauses. This was intended so that the text they received was more relevant to what was happening at the moment. Data were collected through several instruments, namely a syntax test in the form of a task to build a tree diagram for 10 sentences in each news content with different levels of complexity, a semi-structured questionnaire to explore students' understanding of syntax and the challenges faced, observations during the test, and follow-up interviews to gain in-depth insight into the thinking process and the reasons behind certain errors. Data analysis was carried out by identifying errors in word categories, node labeling, and application of phrase structure rules.

To ensure reliability, the syntax test and questionnaire were reviewed by three linguistics experts specializing in syntax and pedagogy. The inter-rater reliability of the syntax test was established through cross-evaluation, where three independent evaluators analyzed students' tree diagrams. A Cohen's kappa coefficient of 0.85 indicated a high level of agreement among evaluators.

For validity, the syntax test was designed based on widely accepted phrase structure rules from generative grammar, ensuring alignment with theoretical linguistic frameworks. The questionnaire's content validity was verified through expert judgment, and its clarity and relevance were improved based on pilot study

feedback. Data analysis was conducted by categorizing students' errors into four main types, namely errors in identifying word categories, errors in labeling nodes, violations of phrase structure rules, and errors in interpreting ambiguous structures. With this method, this study is expected to provide a deeper understanding of the obstacles faced by students in constructing tree diagrams and offer more effective learning strategies to improve their syntactic competence.

This study also followed ethical research standards, including participant consent, maintaining anonymity, and ensuring that the data was used only for research purposes. With this method, it is hoped that a comprehensive understanding of the types and causes of student errors can be obtained, as well as providing insights for designing more effective syntax learning strategies.

Results

Errors in word categories

One of the most common mistakes in constructing tree diagrams is the misidentification of word categories (parts of speech). Several students still struggle to correctly determine the function of a word within a sentence, leading to errors in placing the word within the hierarchical structure of the tree diagram. Some of the errors identified include:

- Misidentifying Conjunctions as Verbs
  The word however, which should be categorized as an adverb or conjunction, was mistakenly classified as a verb by some students. This error suggests that students may not fully understand the transitional function of however within a sentence, leading them to mis assign its category.
- Confusion Between Adjectives and Adverbs
  The word cringeworthy was incorrectly identified as an adverb, whereas it is actually an adjective used to describe a noun. This indicates that students still struggle to differentiate between the forms and functions of adjectives and adverbs in sentence structures.
- Misconstruing Nouns as Verbs
  The word question, which functioned as a noun in a given context, was mistakenly used as a verb in some students' analyses. This suggests that students assumed question could always function as a verb because it can be used as one in certain contexts (He questioned the decision), without considering the specific syntactic structure of the sentence being analyzed.
- Misidentifying the Function of a Verb in a Sentence
  The word direct, which in some sentences should function as an adjective or adverb, was often classified as a verb. This error reveals a lack of understanding of how words can shift functions depending on the syntactic structure.

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- Using Incorrect Word Forms
  The word decelerated, which is an incorrect form of the verb declare, was mistakenly classified as a noun in some students' analyses. This suggests that students have difficulties with English morphology, particularly in recognizing proper verb forms and their variations across different tenses and word categories.

These errors indicate that students still face challenges in understanding the relationship between word forms and their functions within sentences (Winarta & Rahmanu, 2020). A key factor contributing to these mistakes is their limited understanding of fundamental syntactic rules, including distinctions between word classes and how their functions change in different sentence structures.

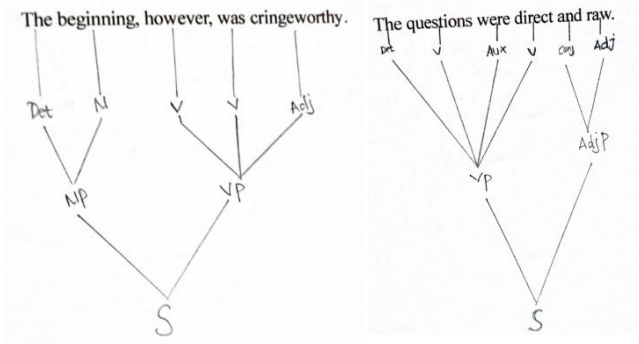

Figure 2. Some Errors in word categories

To address these issues, more interactive and context-based learning strategies should be implemented. For instance, students could be given structured sentence analysis exercises that focus on contextual usage. Additionally, using language corpora or syntactic analysis software could help students better understand how words function in various sentence structures, leading to more accurate categorizations. From the data that has been analyzed, there were around 168 words errors found in news text that students had worked on.

These errors indicate that students still face challenges in understanding the relationship between word forms and their functions within sentences (Winarta & Rahmanu, 2020). A key factor contributing to these mistakes is their limited understanding of fundamental syntactic rules, including distinctions between word classes and how their functions change in different sentence structures.

Node Labeling

Node labeling in the context of tree diagrams refers to the process of assigning labels to each node in a syntactic diagram to indicate the category of words or phrases within the sentence structure (Makiko, n.d., 2017). For instance, in syntactic analysis using constituent trees, every word in a sentence is labeled according to its part of speech, such as: N (Noun) for nouns, V (Verb) for verbs, Adj

(Adjective) for adjectives, Adv (Adverb) for adverbs, PP (Prepositional Phrase) for prepositional phrases, and so on.

Additionally, node labeling is also applied to larger structures, such as NP (Noun Phrase), VP (Verb Phrase), or S (Sentence), to represent the syntactic relationships between components in the sentence (Ali et al., 2023). Errors in node labeling typically occur when a word is misidentified in terms of its class, causing it to be placed in an incorrect category within the tree diagram. For example, if the word however is labeled as V (Verb) instead of Adv (Adverb), the resulting syntactic tree structure will be inaccurate. Here are some pictures of errors found by students in the node labeling of a sentence.

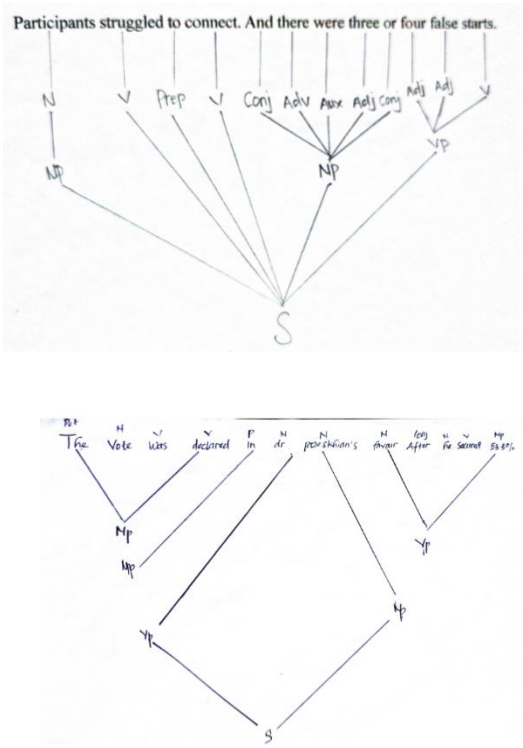

Figure 3. Some Errors in node labeling

Based on the syntactic tree diagram, the analysis highlights both correct and incorrect node labeling. The word "Participants" is correctly labeled as N (Noun) and NP (Noun Phrase) because it functions as a noun and forms a noun phrase. Similarly, "struggled" is correctly identified as V (Verb) as it serves as the main verb in the clause. However, there are notable labeling errors. For instance, "to" is mislabeled as Prep (Preposition) when it should be labeled as Inf (Infinitive Marker), as it marks the infinitive form of the verb "connect", which is correctly labeled as V (Verb). Additionally, while "and" is correctly identified as Conj (Conjunction), the labeling of "there" as Adv (Adverb) is incorrect since it functions as an existential subject and should instead be labeled as Ex (Existential There).

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Further inaccuracies include the labeling of "three" and "four" as Adj (Adjective), which is incorrect because these are numerals and should be labeled as Num (Numeral). While the conjunction "or" is accurately labeled as Conj (Conjunction), the word "starts" is mislabeled as V (Verb), as it functions as a plural noun in this context and should be labeled N (Noun). Lastly, "false" is appropriately labeled as Adj (Adjective) because it describes "starts". These corrections ensure the tree diagram aligns with proper syntactic categorization and improves its interpretative accuracy.

Based on the syntactic tree diagram, the analysis and corrections for node labeling reveal both accurate labels and areas for improvement. The word "The" is correctly labeled as Det (Determiner) because it modifies the noun "Vote", while "Vote" is accurately labeled as the H (Head) in the noun phrase (NP). The phrase "Was declared" is labeled as V (Verb), but to provide more specificity, "Was" should be labeled as Aux (Auxiliary) and "declared" as V (Verb). In the prepositional phrase "In Dr. Poorskhian's favour", the label for "In" as P (Preposition) is correct, but "Dr. Poorskhian's" should be labeled as NP (Noun Phrase) to account for the possessive structure, while "Favour" is correctly labeled as N (Noun) since it serves as the head of the phrase.

For the subordinate clause "After he secured 53.3%", "After" is correctly labeled as Conj (Conjunction) because it introduces the clause, but "He" is mislabeled as N (Noun) and should instead be labeled as Prn (Pronoun) as it is a pronoun. The labels for "Secured" as V (Verb) and "53.3%" as N (Noun) are correct. Additional corrections include distinguishing between specific roles, such as labeling "Dr. Poorskhian's" as part of an NP rather than just N, and ensuring that subordinate clauses like "After he secured 53.3%" are explicitly shown as subordinated to the main clause. These refinements improve the accuracy of the syntactic analysis and ensure that each label reflects the grammatical function of the elements in the sentence. From the data that has been analyzed, there were around 42 node labeling errors found in sentences of news text that students had worked on.

Phrase structure rules

The confusion between sentences and phrases is a common issue among students, particularly when analyzing syntactic structures using tree diagrams (Nuriyanti, 2022). When studying syntax, students are introduced to tree diagrams that represent the hierarchical relationships between elements within a sentence. However, a key challenge arises when students are asked to determine whether a given text is a sentence or a phrase.

A sentence is a larger grammatical structure that expresses a complete thought. It typically contains a subject and a predicate (or other essential elements) and can stand alone as a statement or question (Raihana et al., 2024)r. For example,

the sentence "The cat is running" has a subject ("The cat") and a predicate ("is running") that form a complete thought and can stand alone. On the other hand, a phrase is a group of words that forms a grammatical unit but cannot stand alone as a complete sentence. A phrase only provides partial or incomplete meaning. For example, "The cat" or "running quickly" are phrases because they do not convey a complete idea or form a fully understood sentence on their own. The problem that students often face is when they look at a tree diagram and mistakenly identify a phrase as a sentence. In many cases, a noun phrase (such as "The cat") or a verb phrase (such as "running quickly") might be analyzed as a sentence, even though, structurally, it does not meet the criteria for a full sentence. This can happen because students may not yet fully understand how to read and analyze tree diagrams, or they may not realize that a sentence requires additional components, such as a predicate or modifiers, to provide complete meaning.

Such errors often stem from a lack of understanding of the basic components of a sentence, such as subject and predicate, and how phrases function within a larger sentence structure. In a tree diagram, each branch represents a specific part of a sentence or phrase, and students must be able to identify whether the unit has the necessary structure to be considered a complete sentence.

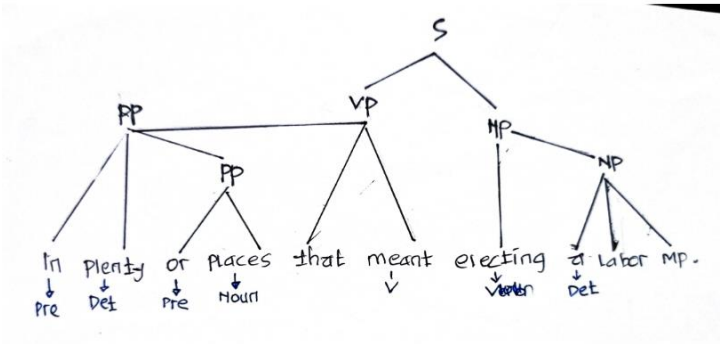

Figure 4. Some Errors in Phrase structure rules

The syntactic tree diagram in the image incorrectly represents the given structure as a complete sentence (S) when, in fact, it is only a phrase. A complete sentence requires both a subject and a predicate, but the diagram lacks a clear noun phrase (NP) functioning as the subject. Instead, the structure mainly consists of a verb phrase (VP) with modifiers, indicating that it is not an independent clause.

The phrase "In plenty of places" is a prepositional phrase (PP) acting as an adverbial modifier, while "meant erecting a labor MP" follows a VP → V + NP pattern. Since there is no independent subject-verb relationship, the structure should be labeled as a verb phrase (VP) rather than a sentence (S). To correct this, an explicit subject, such as "This policy," could be added to form a full sentence: "This policy meant erecting a labor MP in plenty of places." The main error in the diagram is

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treating a phrase as a sentence when it lacks the necessary syntactic components to stand alone as a complete clause. From the data that has been analyzed, there are 11 Phrase structure rules errors found in the news texts that students have worked on.

The following table shows the errors obtained from student assignments about Analyzing Sentence Structure through Tree Diagrams

Table 1. Student Errors in Analyzing Sentence Structure through Tree Diagrams

Errors	Column 2
Word Categories	168
Node Labeling	42
Phrase Structure	11
Total	206

The number of sentences successfully recorded was around 120 with almost 900 words obtained. A quantitative analysis of student errors reveals that a total of 168 errors were found in word categorization, 42 errors in node labeling, and 11 errors in phrase structure rules, bringing the total errors to 206. The total number of analyzed sentences was 120, containing approximately 900 words. A chi-square test was conducted to determine if error distribution among categories was statistically significant. The results indicate that errors in word categories were significantly more frequent ($p < 0.05$) than errors in node labeling or phrase structure rules.

A comparison of errors made by different groups based on their proficiency levels (high, medium, and low) revealed the following trends:

- High-proficiency students made fewer errors in word categorization but still struggled with node labeling.
- Medium-proficiency students exhibited moderate errors across all categories, with node labeling being the most frequent.
- Low-proficiency students had the highest error rate, particularly in distinguishing between word categories and phrase structures.

Student Perspectives from Questionnaire Responses

- Student feedback was collected via a questionnaire to gain insights into their experiences with syntax learning and tree diagrams. Key findings include:
- 82% of students found word categorization challenging, especially with words that can function in multiple categories.
- 69% reported difficulty with node labeling, particularly in distinguishing between prepositions and infinitive markers.
- 75% expressed a preference for visual or interactive methods to aid their

understanding of syntactic structures.
- 60% suggested that more guided exercises with immediate feedback would help them reduce errors in their analyses.

Errors were examined in different types of sentences, including simple, compound, and complex structures. In Simple sentences the most common error was misidentifying word categories, especially for words with multiple possible functions. For Compound sentences, Students struggled with conjunction identification, often misclassifying coordinating and subordinating conjunctions. Meanwhile in Complex sentences, Errors in node labeling were most frequent, particularly in differentiating between noun phrases (NP) and verb phrases (VP).

The study highlights the prevalent errors students make in syntactic analysis through tree diagrams, emphasizing difficulties in word categorization, node labeling, and phrase structure identification. Statistical analysis indicates that errors in word categories occur most frequently, with significant differences among proficiency levels. Student feedback underscores the need for more interactive and structured learning approaches. Moving forward, integrating corpus-based analysis tools and automated syntactic analysis software can provide students with immediate feedback, fostering better comprehension of English syntax.

Discussion

The findings of this study reveal that the errors made by 5th-semester English students in constructing tree diagrams are largely centered around misidentifying word categories, improper node labeling, and misunderstandings of phrase structure rules. These errors are consistent with Culicover's (2017) observation that many students struggle with the foundational aspects of syntax, such as understanding the roles of different word categories and the hierarchical relationships between sentence elements. Misidentifying word categories, such as classifying "however" as a verb instead of an adverb, or confusing adjectives with adverbs, significantly impacts students' ability to construct accurate tree diagrams. This suggests that students often lack a thorough grasp of how words function within specific contexts, leading to errors in syntactic analysis.

In terms of node labeling, errors such as mislabeling words like "to" as a preposition instead of an infinitive marker or "three" as an adjective instead of a numeral demonstrate a gap in students' ability to apply syntactic rules consistently. These mistakes are crucial because they result in misinterpretations of sentence structure, which can distort the overall meaning of the sentence. Furthermore, incorrect labeling of phrases, such as the confusion between "Existential There" and "Adverb," highlights the need for a more nuanced understanding of syntactic categories. One significant finding is that misidentifying word categories—such as classifying "however" as a verb instead of an adverb or confusing adjectives with

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adverbs—substantially affects students' ability to construct accurate tree diagrams. This suggests that students often lack a thorough grasp of how words function in different contexts, leading to errors in syntactic analysis. Furthermore, errors in node labeling, such as misidentifying "to" as a preposition instead of an infinitive marker or "three" as an adjective instead of a numeral, demonstrate inconsistencies in students' application of syntactic rules. Similar findings were reported by Poole (2011), who emphasized that inadequate training in syntactic structures can lead to persistent difficulties in parsing sentences correctly. This analysis emphasizes that teaching syntax requires not only explaining word categories but also providing practice in identifying the structural relationships between them in context.

The data from the students' work, particularly their difficulties with word categories and node labeling, underline the importance of a more practical, hands-on approach to teaching syntax. The study's results point to the need for more context-based exercises that allow students to interact with real-world language examples. By providing exercises where students can apply their knowledge of syntax in relevant contexts—such as analyzing news articles or texts with varying sentence structures—students are more likely to develop a deeper understanding of how to accurately analyze and diagram sentences. Additionally, the integration of syntactic analysis software could aid students in visualizing sentence structures more clearly and allow them to self-correct errors.

Another significant finding is that many of the students' errors stemmed from a lack of exposure to systematic practice in constructing tree diagrams. This suggests that students need more consistent opportunities to practice and refine their skills. Given that tree diagrams are often a complex aspect of syntax learning, it is crucial to introduce scaffolded exercises that gradually increase in difficulty. This approach could help students build their confidence and improve their understanding of more advanced syntactic structures. Furthermore, more direct guidance from instructors could be beneficial, particularly when addressing common pitfalls in tree diagram construction.

While this study provides valuable insights into students' syntactic errors, several limitations must be acknowledged. First, the study focuses on a single institution, which may limit the generalizability of the findings to other contexts. Future studies should include multiple institutions to provide a broader perspective. Additionally, the data collection relied primarily on students' written work without direct observation of their problem-solving processes. Incorporating think-aloud protocols or interviews could offer deeper insights into students' cognitive approaches to syntax analysis. The study also highlights an interconnection between different types of errors. Misidentification of word categories often leads to improper node labeling, which in turn results in

misunderstandings of phrase structure rules. For example, students who incorrectly classify a determiner as an adjective may subsequently mislabel noun phrases, affecting the entire tree structure. This finding underscores the importance of a comprehensive approach to syntax instruction that reinforces multiple layers of analysis simultaneously.

Cultural and linguistic backgrounds also play a role in students' difficulties with syntax. English learners from languages with different syntactic structures—such as Bahasa Indonesia, which lacks inflectional morphology—may struggle with aspects like subject-verb agreement or phrase structure rules. Research by Hawkins (2014) suggests that learners whose first language (L1) syntax differs significantly from English tend to make more errors in syntactic parsing. Acknowledging these differences in instruction could help educators provide more targeted interventions.

To address these challenges systematically, curriculum modifications should be considered. First, incorporating diagnostic assessments at the start of syntax courses can help identify students' strengths and weaknesses. Second, integrating a balance of theoretical instruction and hands-on practice—such as weekly syntax workshops—could reinforce learning. Finally, embedding explicit training on common L1 interference issues could help students overcome language-specific challenges in syntax analysis.

This study underscores the need for a revised approach to teaching syntax that integrates both theoretical and practical elements. By incorporating interactive and context-based teaching strategies, providing targeted support for students with diverse linguistic backgrounds, and refining curriculum design, educators can better equip students with the skills necessary to analyze sentence structures effectively. Future research should explore longitudinal studies on the effectiveness of these instructional strategies in improving students' syntax proficiency. With the right tools and teaching techniques, students will be better equipped to overcome their challenges in syntax and improve their overall language skills.

In terms of assessment methods, a combination of formative and summative assessments should be employed. Formative assessments, such as weekly quizzes and interactive exercises, can provide ongoing feedback and allow students to track their progress. Summative assessments, including structured assignments and final projects where students analyze complex sentence structures, can help evaluate their overall understanding. Additionally, using rubrics with clear criteria for accuracy in tree diagram construction can enhance objectivity in grading. Incorporating self-assessment and peer-assessment methods can also encourage students to critically evaluate their syntactic analyses and refine their skills over time.

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Conclusion

This study highlights the challenges faced by 5th semester English students in constructing tree diagrams, a vital skill in analyzing sentence structures. Errors in word category identification, node labeling, and phrase structure application were commonly observed. Misunderstandings regarding the function of words, such as confusing adjectives with adverbs or nouns with verbs, significantly hindered students' ability to accurately construct tree diagrams. These errors reveal the importance of a deep understanding of basic syntactic rules and categories, which form the foundation for accurate syntactic analysis.

Furthermore, the study reveals that the process of tree diagram construction is complex and requires both theoretical knowledge and practical application. Many students struggled with the hierarchical relationships between different syntactic elements, such as the correct placement of determiners and auxiliary verbs within the sentence structure. As a result, errors in node labeling and the misidentification of syntactic categories were prevalent. These issues suggest a need for more targeted and context-based teaching strategies, allowing students to develop a clearer understanding of how syntax functions in real-world sentences.

To address these challenges, the study proposes that interactive and context-based learning approaches should be implemented in syntax instruction. Using real-life examples, such as news texts, can help students better understand word functions in various contexts, leading to more accurate categorizations. Additionally, incorporating tools like syntactic analysis software could support students in visualizing sentence structures more clearly. Furthermore, instructors should emphasize the importance of understanding the underlying principles of syntax, such as phrase structure rules and the functional roles of words in sentences. With the right tools and teaching techniques, students will be better equipped to overcome their challenges in syntax and improve their overall language skills.

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