



Mini Study on the Logical Function of Clauses as Relations in Student Essay Assignment Results

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ABSTRACT

This study examines the logical function of clauses as relations in student essay assignments. The study was conducted on 20 essays written by English Education students at Medan State University, which were originally written to fulfill a case method assignment for the Productive Written Language Skills course. The focus of the analysis was on how clauses function relationally to construct meaning in students' writing. This study uses a qualitative descriptive approach with Halliday's Systemic Functional Linguistics framework, specifically the logical metafunction, as the main tool of analysis. Data were collected from selected student essays, then analyzed to categorize the logical functions realized through clause relations such as coordination, subordination, and embedding. The results showed that most students used paratactic relations more frequently, particularly coordination with conjunctions such as *and* & *but*, while

hypotactic relations such as *cause*, *condition*, and *concession* were used less frequently. In addition, several incomplete or inconsistent relational constructions were also found, reflecting the development of students' ability to manage more complex clause relationships. These findings indicate that although students are able to construct meaning through basic relational clauses, further pedagogical attention is needed to strengthen their ability to use more varied and academic logical relationships.

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INTRODUCTION

In academic writing, especially at university level, the way a writer connects ideas is as important as using the right words and grammar. A clause, which is the basic part of a sentence, has a very important role in making these connections. In Systemic Functional Linguistics (SFL), a clause is not only a statement but also a way to link and organise meaning in a text (Halliday & Matthiessen, 2014). This view talks about the logical metafunction how clauses are joined together through coordination, subordination and embedding. Some studies have looked at cohesion and clause complexity in student writing (Hyland, 2016; Emilia, 2014), but there is still little information on how students really use the logical function of clauses to build meaning in their essays.

This small study tries to fill that gap by looking at how clauses work as logical relations in student essays. The data come from 20 essays written by English Education students at Universitas Negeri Medan for the course Productive Written Language Skills using the case method. Using Halliday's SFL framework, the study looks at how clauses are used through parataxis, hypotaxis and other complex forms to build meaning in students' texts. This focus helps to show the patterns of clause use and also the strengths and weaknesses of students' academic writing.

As shown in the abstract, the study finds that students often use paratactic relations, especially coordination with conjunctions like *and* and *but*, while hypotactic relations like *cause*, *condition* and *concession* are used less. This raises an important question about students' academic writing: does relying on simpler clause relations limit how deep and complex their arguments can be? And how can teaching about logical relations help students build more varied and academic clause structures? By asking these questions, the study wants to give a description of students' writing practices and also ideas for improving the teaching of academic writing at the clause level.

METHOD

This study used a qualitative descriptive method under the framework of Halliday's Systemic Functional Linguistics (SFL), with specific attention to the logical metafunction. The

aim was to examine how students employed clause relations in their argumentative essays to build meaning and support their arguments.

Population and Sample

The population of this study consisted of English Education students at Medan State University who took the Productive Written Language Skills course in 2025. From this population, 20 argumentative essays written as part of the case method assignment on the National English Competition (NEC XII) were collected. The essays varied in length and style, and were written by different students in the same cohort. These texts served as the primary data for the analysis.

Data Collection

The data were drawn directly from students' assignments submitted to the lecturer. The task required students to compose argumentative essays discussing the impact of NEC XII on English Education students. The essays were collected in their original form, without modifications, to preserve the authenticity of students' writing styles and linguistic choices.

Data Analysis

The analysis was carried out in several stages:

1. Segmentation of Clauses

Each essay was read closely, and sentences were segmented into clauses to identify their logical structures.

2. Classification of Clause Relations

Each clause relation was categorized into three types according to Halliday's logical metafunction:

- 1) Parataxis (Coordination): Equal clauses linked with conjunctions such as, and, but, not only, and but also.
- 2) Hypotaxis (Subordination): Unequal clauses expressing cause, condition, concession, or explanation, often with conjunctions like, because, although, if, and while.

- 3) Embedding: Clauses inserted within larger clauses such as relative clauses (which, that) or non-finite forms (-ing to -infinitive).

3. Interpretation

After categorization, the overall patterns were identified by counting which relations were most frequently used. The analysis also noted incomplete or inconsistent constructions, which reflected the students' developing ability to manage complex clause relations. Representative examples from individual essays (e.g. Apri, Feby, Dira, and others in the dataset) were selected to illustrate specific patterns.

Trustworthiness

To ensure accuracy, each text was reviewed multiple times during clause segmentation and classification. The researcher cross-checked clause categorization with examples from SFL literature. In addition, comparisons were made across multiple essays to validate recurring patterns and avoid overgeneralization from individual cases.

RESULTS

Logical Function Usage

The results of this study are presented based on the analysis of logical function in student essays. The focus of the analysis was on three main aspects: coordination (parataxis), subordination (hypotaxis), and embedding. Each essay was examined to identify the dominant type of clause relation and the manner in which students organized their arguments through language.

The overall findings indicate that most students relied heavily on coordination (parataxis) as their primary strategy to present arguments, particularly by using conjunctions such as *and* or *but* also to list or connect parallel ideas. Subordination (hypotaxis) appeared less frequently and was mainly used to indicate causal, conditional, or purposive relations. Embedding was used occasionally, especially in the form of relative clauses or *that*-clauses, showing a tendency toward more academic writing.

To provide a clearer overview, the results were grouped into three categories according to the dominant patterns of clause relations. The distribution of essays across these categories is summarized in the following table.

Table 1. Logical Function Usage on Student Essays

Category (Dominant Usage)	Characteristics	Authors (Essay Writers)
Parataxis Dominant (with limited hypotaxis and embedding)	Mostly using <i>and</i> , <i>but also</i> for listing or parallel ideas; <i>hypotaxis</i> limited to simple cause/effect or condition; embedding rarely for short details.	Marbun, F. G.; Siregar, P. H.; Yusrina, D. Z.; Anzura, S.; Susanto, S. R.; Purba, F. D. R.; Samosir, C. G. B.; Sirait, P. S.
Balanced: Parataxis + Hypotaxis (with moderate embedding)	Coordination still strong, but <i>hypotaxis</i> used for cause, condition, and purpose; embedding often appears in relative clauses and <i>that-clauses</i> to support arguments.	Purba, R. S. E.; Tampubolon, A. Z. K.; Situmorang, A. J.; Aini, F. T.; Zafira, N.; Barus, R. A.; NST, R. F.; Syafitri, R.; Al Jannah, A.; Samosir, N. B.; Khaliq, N.
Parataxis with Academic- Style Embedding	Coordination remains dominant, but embedding (e.g., <i>that</i> -clause, belief statements) is noticeably applied to express academic stance; hypotaxis less frequent.	Putri, A.

From the table, it can be observed that the majority of essays fall into the first two categories, showing that coordination is still the most frequently employed strategy by students. Only one essay (Aisyah Putri) stands out for its more consistent use of embedding to strengthen an academic style of writing. These findings provide a factual overview of how clause relations are employed by students in structuring their argumentative essays.

Distributions of Logical Function Usage

This section presents the distribution of logical function usage found in student essays. The analysis focused on three main categories: Parataxis Dominant, Balanced, and

Academic Embedding. Each essay was classified according to the most prominent type of clause relation applied by the students in constructing their arguments.

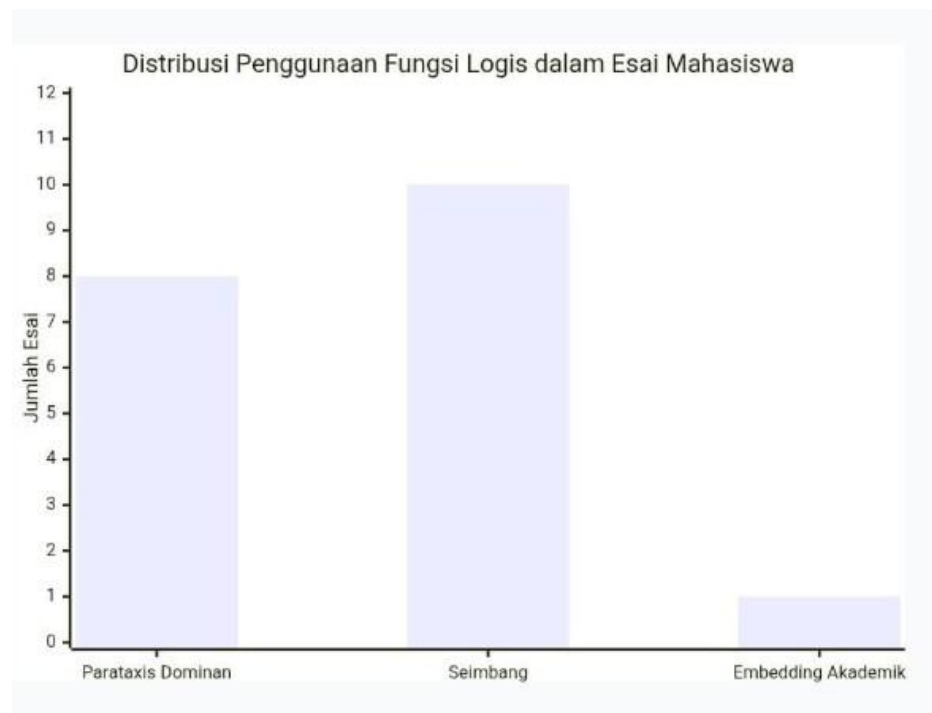


Figure 1. Distributions of Logical Function Usage on Student Essays

Based on the analysis, 8 essays were categorized as Parataxis Dominant. In this group, students tended to rely on coordination as the main strategy to connect parallel ideas. Furthermore, 10 essays fell into the Balanced category, where coordination and subordination were used more proportionally, indicating greater variation in clause relations. Meanwhile, only 1 essay was classified as Academic Embedding, characterized by the use of more complex structures such as relative clauses and embedded constructions.

The overall distribution can be seen in Figure 1. The highest number is found in the Balanced category with 10 essays, followed by Parataxis Dominant with 8 essays, and the lowest is Academic Embedding with only 1 essay. These results provide a factual overview of the variation in logical functions within the student essays analyzed.

DISCUSSION

The findings indicate that students relied predominantly on parataxis, suggesting that coordination was the most accessible and frequently employed relational strategy in their academic writing. This preference reflects a developmental stage in which writers prioritize clarity and linear progression of ideas through coordination markers such as *and*, *and but*. While this approach enables students to express multiple ideas, it also reveals a reliance on surface-level connections rather than more complex hierarchical structures.

The use of hypotaxis, although present in most essays, was limited to relatively simple functions such as cause, condition, and purpose. This finding implies that students are beginning to develop awareness of more nuanced logical relations, but their ability to integrate these into sophisticated arguments remains in progress. Embedding, which was the least frequent strategy, tended to appear in relative clauses and *that*-clauses, suggesting that some students are experimenting with academic-style writing conventions. However, its relatively low occurrence shows that embedding has not yet become a consistent feature of their linguistic repertoire.

These results are significant because they highlight the gap between students' current writing practices and the expectations of advanced academic discourse, where complex subordination and embedding play a central role in constructing layered arguments. In line with Halliday's systemic functional linguistics framework, the dominance of parataxis signals a tendency toward oral-like structures, while the limited use of hypotaxis and embedding suggests that students are still transitioning into more academic modes of expression.

Overall, the findings validate concerns that undergraduate writers often struggle with incorporating complex clause relations into their essays. At the same time, they offer evidence of gradual development, as some students demonstrated balanced use of coordination and subordination with emerging academic-style embedding. This indicates potential for growth if instructional practices provide targeted scaffolding in the use of hypotaxis and embedding to strengthen argumentation and coherence in academic writing.

From a pedagogical perspective, the findings suggest that writing instruction should place greater emphasis on developing students' ability to employ hypotaxis and embedding

effectively. Classroom activities could, for instance, encourage students to rewrite coordinated sentences using subordination, or to integrate relative and that-clauses in argumentative writing. Teachers can also provide explicit modeling of how complex clause relations enhance logical flow and persuasiveness in essays. By gradually scaffolding these skills, educators can help students move beyond reliance on parataxis toward more sophisticated writing practices that align with the demands of academic discourse.

CONCLUSION

This study shows that in student essay writing, the most dominant clause relationship used is parataxis or coordination, such as the use of the conjunctions *and* and *but*. The use of hypotaxis, which includes causal, conditional, and purpose relationships, is still limited, and academic clause embedding only appears in a few writings as a sign of more complex language development. These findings indicate that students are still in the early stages of developing the ability to construct academic arguments with more complex and diverse sentence structures. The limitations of this study include the relatively small sample size of essays and the analysis that only focuses on the logical function of clauses without considering other aspects of academic writing, such as overall cohesion and coherence.

Therefore, further research is recommended to conduct a comprehensive study that combines various linguistic aspects and involves more data to obtain a more holistic picture of students' academic writing abilities. In addition, the results of this study have important implications for teaching academic writing. Special attention is needed in developing students' skills in using hypotactic and embedding relationships effectively so that their argumentation skills and linguistic richness in their writing can improve significantly.

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