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An Analysis on Interdependency and Logico-Semantics in the Final Project Background Written by English Education Department Students of UPGRIS

Enca Agustia¹, Senowarsito^{2,*} and Arso Setyaji³

¹²³ Universitas PGRI Semarang encagustia11@gmail.com

Abstract

This research analysis about Interdependency and Logico-Semantics in the final project background. The aims of this study are: (1) to find out interdependency in the final project background (2) to find out logico-semantics in the final project background (3) to know how interdependency and logico-semantics actualized in the final project background. The methodology of this research belongs to descriptive qualitative method. Source of the data is final project background written by English Education Department Students of UPGRIS. To analyzed the data, use interactive analysis of Miles & Kuberman through four steps, they are collecting the object picture, data condensation, data display, drawing and verification conclusion. The results of this study showed that there are 119 clause complexes which contain kinds of interdependency and logico-semantics. Based on the analysis, there are paratactic and hypotactic result in percentage: paratactic (48,2%) and hypotactic (52%). From this analysis found kinds of logico-semantics, they are projections (0,5%) and expansions (100%). After analyzing the data, it can be concluded that not all clauses in the final project background actualized interdependency and logico-semantics, because not all clauses are indicated as clause complex.

Keywords: final project background, interdependency, logico-semantics, systemic functional linguistics

Introduction

English is a foreign language in Indonesia, so Indonesians don't use this language to communicate in every time. Writing, speaking, reading, and listening are some of the English skills students learn at schools. Indonesian students learn English starting from elementary school up to university. Every student can feel free to speak English with their vocabularies but they cannot write English in correct structure.

Writing is one of the English skills that study about how to express feeling, knowledge, story, or another in the written form. It is important to learn because we need to write well every time especially for school. As a student, writing is a daily activity in school. Writing an English text is different from writing an Indonesian one. Many things that must be paid attention when writing in English, they are about grammatical structure and the meaning of the sentence.

Analyzing a text in English sentence is need to understand about text structure and meaning, that is called Systemic Functional Linguistics. English has many approaches and one of them is Systemic Functional Linguistics. Dewi (2016, p. 7) states that Systemic Functional Linguistics is a linguistic tool that is used to analyze a text or sentence in order to comprehend

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its context and structure. In systemic functional linguistic, a sentence consists of phrases and clauses. Something that distinguishes it from other approaches is the way of SFL to look at the meaning in a language. SFL separates meanings based on meta-functions, they are ideational meaning, interpersonal meaning, and textual meaning.

Ideational meaning contains experiences and logico. Ideational meaning is just not seeing a phrase but also a clause, so ideational meaning is viewed as crucial topic to be analyze. In English clause, we can find what is clause complex. Clause complex is about the structure or taxis and the meaning or logico-semantics. Setyaji et al., (2019), said that clause complex in SFL is identify become two terms, they are interdependency to analyze the structure and ideational meta-function to analyze the meaning.

The clause complex is different from another clause complex in traditional grammar. Traditional grammar just views forms of sentence, such as compound sentence and compound-complex sentence which don't have meaning in this clause complex. An expert named Halliday has various theories and explanations which related to SFL. In Systemic Functional Grammar, the clause complex sees a language from the form and meaning. In Systemic Functional Grammar, a clause has two types namely clause simplex and clause complex.

This study looked further at the clause complex form through interdependency consisting of paratactic clauses and hypotactic clauses. Interdependency is clause relation where one clause is depend on another clause. (Wulansari, 2015). Meanwhile, the logico-semantics will show two meanings are called expansion and projection. Projection meaning contains locution and idea while expansion meaning has three types, they are elaboration, extension, and enhancement. Therefore, this research will produce new findings or we can call it a novelty.

There is a problem that the researcher found during college which becomes a motivation to do this research. The researcher was often found many students who didn't understand about Systemic Functional Linguistics especially about interdependency and logico-semantics knowledge. So, it's made many students can write perfectly with grammar structure but don't have meaning on this sentence.

The researcher chooses interdependency and logico-semantics to identify because many English Education Department Students of Universitas PGRI Semarang who don't understand about how important to actualized the interdependency and logico-semantics in writing the text, especially in write final project background. Some problems that cause the students don't understand about interdependency and logico-semantics are they didn't get about this material in the school and the teacher didn't intimate taught about this. To solve the problems, the students must learn about systemic functional linguistic.

An object of this research is the final project background because the students mostly write about their background research with their own words. The background section of a final project usually explains about the need of conducting the study and summarizes what the aims of the study to accomplish, thus the writing must be good in structure and meaningful to make the reader understand of the study.

Based on the arguments above, the focus of this study is to analyze interdependency and logico-semantics in the final project background written by English Education Department Students of Universitas PGRI Semarang use systemic functional linguistics as an approach and focus at 3 points:

1) What kinds of interdependency are found in the final project background written by English Education Department Students of Universitas PGRI Semarang?

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- 2) What kinds of logico-semantics are found in the final project background written by English Education Department Students of Universitas PGRI Semarang?
- 3) How are interdependency and logico-semantics actualized in the final project background written by English Education Department Students of Universitas PGRI Semarang?

Literature Review

Meta-function

A language in systemic functional linguistics has an important function as a source to creating meaning, it's called meta-function. (Sihura, 2019, p. 79). An expert named Halliday explained that meta-function in SFL has three categories, those are ideational, interpersonal, and textual.

a Interpersonal Meaning

Interpersonal meaning is about how the language used to an interaction between two-person or more who do conversation. Belong to Halliday's statement above, to do giving and demanding activity we must-have commodities as the topic. Goods, services, and information are the most common commodities used in exchange interactions.

b Textual Meaning

In textual meaning, a clause as message that is constructed around a theme and rhyme. According to Halliday & Matthiessen (2014, p. 89), the theme is the element that have the functions as the message's starting point and it is the element that visualizes and orients the clause within its context.

c Ideational Meaning

Ideational meaning is a theory in language which have the function to express and construe human perception or human life experience and its concern with everything in the world. (Sihura, 2019, p. 79).

1) Experiential Meaning

Experiential is about how experience can be represented. A clause in experiential meaning as experience unit or participant. According to Halliday, to represent an experience in experiential meaning is used transitivity, there are process + participant + circumstance.

2) Logico Meaning

Logico meaning is about how the meaning of two or more clauses is related. Halliday divided logico meaning into two categories, they are group and clause. Group in the logico meaning is divide into 3 classes, they are nominal group, verbal group, and adverbial group. (Halliday & Matthiessen, 2004, p. 310). According to Halliday & Matthiessen (2004, p. 312), nominal group is a sentence which consists of only long nominal or only noun in the sentence with the other name it is the same with the sequence of a noun in the sentence or we can be called it phrase. An example, those two splendid old electric trains with pantographs. The expansion of a verb is verbal group, even if a nominal group is the expansion of a noun and it is made up of a set of words from the main class of verbs. (Halliday & Matthiessen, 2004, p. 335). A verbal group in logico meaning structured is realized as tenses.

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Table 1: The Example of Verbal Group in Logical Meaning

Has	Been	Eating
-S	have + been	be + ing
A	β	Γ
Simple	Simple	
present	past	Simple future tense
tense	tense	

Source: (Halliday & Matthiessen., 2014)

Clause is the lexicogrammatically central processing element and it is about how meanings of various kinds are placed into an integrated grammatical structure in the clause. (Halliday & Matthiessen, 2004, p. 10). Another definition of clause according to Fontaine (2012, p. 9) who defined that the clause is a multifunctional language unit that is.

Therefore, if a head clause is modified by other clauses, a sentence might be viewed as a complex clause. (Halliday, 1994, p. 255). Clauses have a system to analyze in a sentence how one clause is related to another.

1. Kinds of Clause

English has many kinds of a clause in traditional grammar and modern grammar or SFL. Independent clauses and dependent clauses are traditional grammar clauses while clause complex and clause simplex are a clause in SFL.

a. Clause Simplex

According to Setyaji et al., (2019, p. 246), the simplex clause has only one clause, whereas the complex clause has a head clause and then several clauses that vary it. It means that in clause simplex only one process.

b. Clause Complex

According to Eid (2016, p. 329), the grammatical and semantic unit generated when two or more clauses are linked by taxis and logico-semantics links is referred to as a clause complex.

2. Interdependency

Halliday & Matthiessen (2004, p. 373) defined that the relational structure's purpose is taxis or interdependency, it is when both clauses in taxis connected by a logicosemantics relation is interdependent. One unit depends on another unit. Taxis are divided into two branches namely paratactic and hypotactic.

a. Paratactic

An expert Halliday & Matthiessen (2014, p. 440) explain about paratactic, he said that paratactic is the relationship between two units with equal status, one initiating and the other continuing. According to Halliday's statement above, can

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be concluded that paratactic is a sentence that has equal meaning or entity and usually it is an independent clause or can be structured like a compound sentence with coordinate conjunction. "For paratactic structures, we shall use a numerical notation 1 2 3 ..., with nesting indicated in the usual way: 11 12 2 31 32 means the same as 1(1 2) 2 3(1 2)." (Halliday & Matthiessen, 2014, p. 441).

b. Hypotactic

A hypotactic relationship exists between a dependent entity and its primary element, the element on which it relies. (Halliday, 1994, p. 218). For other definitions, hypotactic is a subordination clause which combined. Usually, the structure of hypotactic is same with a complex sentence which is writes with a subordinate conjunction. Following Halliday, the hypotactic is indicated with Greek letter and some symbol used in hypotaxis they are α , β , γ , δ .

3. Logico-Semantics

According to Ngongo (2018, p. 150), the logico-semantics relationship refers to the essential features of the relationship between two or more clauses. This correlation applies to logical and semantics relationships. Every sentence in which this writing is attention to logico-semantics relations will have the best structure and meaningful. (Yuniar, 2018, p. 122). The function of logico-semantics in SFL is to analyze how the meaning is realized in the sentence. Logico-semantics have two basic relations in SFL to analyze the meaning, they are projections and expansions.

a. Projections

Projections are about an event that contains a process of thinking and saying. (Yuniar, 2018, p. 123). The process of thinking in projections is called idea with a sign (') and saying is locution with a sign (").

b. Expansions

Expansions is when a clause improves on the meaning of another clauses, it does so in a variety of ways. For example, the first clause below adds information more about process's location in time. "When you sleep, / all the muscles of the mouth relax". (Thompson, 2014, p. 193). Expansions are divided into three types, they are elaboration (=), extension (+), and enhancement (x).

1) Elaboration

This is type of expansion that has a function to analyze the same meaning which writes by a different word in a sentence or clause. The (=) punctuation symbol is used to divide one clause from another clause which has the same meaning.

2) Extension

Thompson (2014, p. 193) represented that in the extension, one clause can expand another clause by adding a relation which can be a conjunction and; but in the sentence. The sentence feature that shows extensions usually contains the opposite meaning between one clause and another clause. Besides, using extensions can do additive, varying (replacing and subtracting), and alternative in the sentence to add meaning. The conjunctions which usually used in extension same as parataxis, this is coordinate conjunction. If in hypotaxis sentence can be found the extension, so the alpha (α) on hypotaxis is free of any labels. The most noticeable indication of hypotactic expansion is 'while' or

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'whereas' (like the prolonged use of 'but,' they pair addition with contrast). (Thompson, 2014, p. 197).

3) Enhancement

Abohadi et al., (2020, p. 844) stated that enhancement is the situation in which the meaning of one clause is clarified by the meaning of some other clause. The relationship of enhancement may relate to time, location, way, cause, or condition. Based on the statement above, it can be concluded that enhancement is used to provide additional information in the form of information on time, cause, purpose, condition, and concession. Enhancement is indicating with a symbol (x). Abohadi et al., (2020, p. 844) said, enhancement relations can be paratactic or hypotactic relations.

Method

In this study, the writer used a qualitative descriptive method. In was conduct the research, the researcher expected that the descriptive qualitative method can help to know about an event, who is participants, what is about, and where this event happened. (Lambert & Lambert, 2012, p. 256). In collecting data on the final project background of the English Education Department Students of UPGRIS who graduated in 2019 the writer used the documentation method with several stages. The first is to collect the final project background of students who graduated in 2019. And then, Determined 15 final project backgrounds among them as the sample. For the last, the researcher read their final project backgrounds.

Miles et al., (2014) have the nature to analyze the qualitative data into three steps, as follows data condensation, data display, drawing, and verification conclusion. The researcher used 4 steps that conducted for the collecting data, as follows:

1. Collect the Object Picture

In this step, the researcher took capture to the final project background of 15 students who became the sample to analyzed interdependency and logico-semantics

2. Data Condensation

According to Miles et al., (2014), the process of selecting, centralizing, simplifying, abstracting, and/or transforming complete data and summarizing it without sacrificing information is referred to as data condensation. This was part of analyzing data. In this way, the researcher read the source of the data was study to found the overall clause used for each different data. And then, the researcher classified the text into interdependency and logicosemantics, and the researcher analyzed through the kinds of interdependency and logicosemantics.

3. Data Display

According to Miles et al., (2014) suggest that data display is the second main flow of analysis data activity. A display, in general, is a well-organized, condensed set of data that facilitates decision-making and action. Usually, a form of display is a chart, table, and other types of graphics. In this step, the researcher identified the interdependency and logico-semantics that actualized in the final project background also determined the dominant are used.

4. Drawing and Verification Conclusion

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The last step is drawing and verification the conclusion. The researcher can get the conclusion of the supporting source in the field was good at gathering data so that drawing or verification helped the writer got the result of the study. As a result, the writer was able to achieve the research's conclusion. The researcher calculated the result used a formula it was to figure out what is interdependency and logico-semantics were dominantly used in the final project background written by English Education Department Students who graduated in 2019.

$$f \% = \frac{\sum f}{n} \times 100\%$$

Where,

f % = The symbol frequency

f = Frequency of item

 \sum = Symbol for summation

n = Frequency of respondent

Finding and Discussion

1. Kinds of interdependency found in the final project background.

	Table 3: The Number of Inte	rdepe	ndenc	cy
No.	Types	of	f	f%
	Interdependency			
1.	Paratactic		82	48,2%
2.	Hypotactic		88	52%
TOTAL			1009	%

The sample of this research was analyzed 15 final project backgrounds and then the researcher found 119 clause complexes. Kinds of interdependency were paratactic and hypotactic. The clause complexes which were analyzed consist of 48,2% paratactic and 52% hypotactic.

2. Kinds of logico-semantics found in the final project background.

Table	4: The Number of Logico	-Semant	ics
No.	Types of Logico-	f	f%
	Semantics		
1	Projections	1	0,5%
2	Expansions	218	99,5%
TOTAL		100%	

The result was shown that English Education Department Students of UPGRIS were mostly used expansion to write the final project background. Based on the writer's analyzed, expansion mostly to use because in expansion the students can develop sentence wider by adding information or varying information.

Based on the previous study, especially in Chapter II, projections and expansions had some categorized. Locution and idea were types of projection, while expansions had three types, they were elaboration; extension; enhancement. The researcher made the table to explains more details about this.

Table 5: The Number of Kinds of Logico-Semantics

No.	Types	f	f%
1	Locution	1	100%

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2	Idea	0	0%
3	Elaboration	75	34,1%
4	Extension	88	40%
5	Enhancement	57	26%
6	Additive	85	94,4%
7	Varying	4	4%
8	Alternative	1	1%
9	Time	2	3,6%
10	Purpose	29	52%
11	Space	1	2%
12	Manner	2	3,6%
13	Cause	22	39%

From the explanation above, the researcher can be concluded that locution with 100%, extension with 40%, additive with 94,4%, and purpose with 52% were logico-semantics that mostly used by English Education Department Students of UPGRIS. However, logico-semantics which has the meaning as a locution and additive was highly used by the students to write the final project background.

3. Interdependency and logico-semantic actualized in the final project background written by English Education Department Students.

After analyzed the data, the researcher found interdependency and logico-semantics were actualized in the 15 final project backgrounds. To prove it, the researcher gives some examples.

a. Paratactic

Table 6: Example of Paratactic					
1	4a	This is also expected to facilitate			
		the students	in the		
		accomplishment of a	competence		
2	4b	and increase th	e students		
		understanding of English			
vocabulary					

b. Hypotactic

	Table 7: Example of Hypotactic				
α	1a	According to Ramelan (1991),			
		language is said to be social,			
β	1b	because it is only used in a social			
		group			
γ	1c	which involves at least two persons,			
		the speaker and the hearer			

c. Projections

	Tal	ole 8: Example of Projections
α	1a	According to Ramelan (1991),
		language is said to be social,
-"β	1b	because it is only used in a social
		group
+γ	1c	which involves at least two
		persons, the speaker and the
		hearer

d. Elaboration

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			able 9: Example of Elaboration
		α 13	a The English language is a universal communication tool
		$=\beta$ 13	
		,	language by everyone in various
			parts of the world
e.	Additive		
			Table 10: Example of Additive
		1 17a	I refer to Emi
		+2 17b	and there refers to a particular place
f.	Varying		
		7	Table 1 1: Example of Varying
		1 67a	There are a lot of languages in this
			world,
		+2 67b	but English has been our International
			Language
g.	Alternative		
		Ta	able 1 2: Example of Alternative
		1 32a	These difficulties are more likely to be
			associated with the nature of the
			language pragma linguistic
		+2 32b	or even sociocultural aspects
1	T.'	3 32c	and also the lack of interest in reading
h.	Time		
			Table 1 3: Example of Time
		α	74 So, the players will know
			a a lot of new vocabulary in
			"extra schooling"
		1 xβ	74 when they play this game
			b
		+2	74c and using English in learning
			process is doing well
i.	Purpose		
	1	7	Table 1.4. Frample of Purpose
		$\alpha \frac{1}{\alpha}$	Table 1 4: Example of Purpose It needs learn about grammar in the term
		vK /IIh	to know what is happen in the world
	_	xβ 41b	to know what is happen in the world
J.	Space	xβ 41b	to know what is happen in the world
J.	Space	xβ 41b	Table 1 5: Example of Space
J.	Space	xβ 41b α 75a	
J.	Space	,	Table 1 5: Example of Space
J.	Space	α 75a	Table 1 5: Example of Space Foreign language is a language
J.	Space	α 75a	Table 1 5: Example of Space Foreign language is a language that is not used as a communication tool
J.	Space	$\frac{\alpha}{=\beta}$ 75a $\frac{75a}{75b}$	Table 1 5: Example of Space Foreign language is a language that is not used as a communication tool in certain countries

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		Table 1	l 6: Exa	mple of Manner
		1	54a	Positive politeness leads
				to the expression of
				solidarity
	α	+2	54b	or friendliness toward
				others,
1	хβ		54c	while negative politeness
				pays people respect
+2			54d	and avoids intruding on
				them,
+3			54e	or threatening their face

1. Cause

Table 1 7: Example of Cause				
1	70a It means that the situation cannot			
	improve the vocabulary mastery of the			
		students		
x2	70b	so the interaction is not doing well		

Discussion

Interdependency and logico-semantics were part of clause complex in Systemic Functional Linguistics which analyzed sentence structure and meaning of the sentence. This was chosen as a subject to be analyzed by the researcher because in the final project background was found so many clause complexes that can be identified according to the structure and meaning.

This study focused on interdependency and logico-semantics in the final project background written by English Education Department Students of UPGRIS who graduated in 2019. There were three purposes of this research to analyze. The first was analyzing the kinds of interdependency found in the final project background written by English Education Department Students of UPGRIS. The second was analyzing the kinds of logico-semantics found in the final project background written by English Education Department Students of UPGRIS. The last was to find out the interdependency and logico-semantics actualized in the final project background written by English Education Department Students of UPGRIS who graduated in 2019.

The researcher analyzed 15 final project backgrounds written by English Education Department Students of UPGRIS that were contained in the clause complex. The analysis of this study involved all parts of interdependency and logico-semantics. After analyzing the data, the researcher found 119 clause complexes in the final project background written by English Education Department Students of UPGRIS. Interdependency was contained paratactic 48,2% and hypotactic 52%. Whereas, logico-semantics was projections 0,5% and expansions 99,05%. Based on Halliday, projections were categorized into two types. They were locution 100% and idea 0%. And then, expansions were categorized into three types. They were elaboration 34,1%, extension 40%, and enhancement 26%. Meaning in extension and enhancement were categorized again into some types. An extension has three kinds of meaning, they were additive 94,4%, varying 4%, and alternative 1%. Enhancement has five kinds of meaning, they were time 3,6%, purpose 52%, space 2%, manner 3,6%, and cause 39%.

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Based on the data above, we can see that all kinds of interdependency were found in the final project background written by English Education Department Students of UPGRIS and the dominant interdependency that was used was hypotactic. And then, in the final project background written by English Education Department Students of UPGRIS, the researcher also found kinds of logico-semantics. Those were projections and expansion. However, not all kinds of projections were found. This was can be proven by the result that the idea 0%; locution 100%

From this result can be concluded that expansion was highly used with extension types in additive meaning as a dominant of logico-semantics was found in the final project background written by English Education Department Students of UPGRIS who graduated in 2019. Interdependency and logico-semantics actualized in the final project background written by English Education Department Students of UPGRIS in every sentence which was contained in the clause complex.

Conclusion

Based on the result above, we can see that all kinds of interdependency and logico-semantics actualized in the final project background except one kinds of projections that is idea. Interdependency and logico-semantics actualized in the 15 final project backgrounds actualized with different percentages quantity. The writer concluded that students actualized interdependency and logico-semantics almost perfect because the error rate in the grammar structure is very little and the use of proper conjunctions and clause structure is also good.

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