

## WRITING LITERACY OF STUDENTS AT DIFFERENT EDUCATIONALS LEVEL: A TAXIS ANALYSIS (SYSTEMIC FUNCTIONAL LINGUISTICS)

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### ABSTRACT

This study aims to determine the writing literacy of students between educational levels, namely junior high school (SMP), senior high school (SMA), and college students. The writing literacy studied focuses on the production of complex clauses with parataxis and hypotaxis relations found in students' texts. The objectives of this study are (1) to identify the form of taxis in complex clauses found in student writing, especially at the secondary and tertiary education levels; and (2) to find out the productivity of the use of complex clauses in student writing between educational levels. The research data were clauses contained in texts written by junior high school, high school, and college students. The texts analysed were 18 texts written by 18 students with different levels of education, namely 6 texts written by junior high school students, 6 texts written by senior high school students and 6 texts written by university students. The data were collected using a documentary technique. The theory used in analyzing the data is Halliday's theory of complex clauses and Gerot and Wignell's theory of taxis. Based on the results of the research, students' writing literacy between levels of education is stated to have increased at each level of education, especially in producing clauses. This is indicated by the percentage of clause production that continues to increase from junior high school to college level. In addition, from junior high school to level, the production of complex clauses are more dominant than simplex clauses.

**Keywords:** *clause, complex clause, hypotaxis, parataxis, taxis*

### INTRODUCTION

Language skills include four aspects in it, namely speaking, listening, reading, and writing. Of these four aspects, writing skills are considered a difficult skill for students to master. This is because writing is an activity that requires students to be able to pour ideas, feelings, opinions, and information into written language. In addition, writing is not only an activity of pouring ideas into writing, but also organizing these ideas into such a way that readers can easily understand the information contained in it. The importance of the ability to write well is needed by students at all levels of education, both from secondary and tertiary levels. The ability to write is also called writing literacy. Literacy is broadly defined as language skills that cover various aspects, including listening, reading, writing, speaking and thinking skills. Writing literacy is the ability to understand, use and produce written texts in an effective way.

Writing literacy is one of the important skills that students must master in language development and activities. However, this is still a challenge for Indonesia. This is due to the results of the PISA (Program for International Student Assessment) survey in the 2018 PISA test which states that Indonesia is ranked 74 out of 79 countries in terms of reading and writing skills. This result shows the low writing ability of students at the international level.

In general, students' writing literacy develops at each level of education. For example, students in middle school are usually taught about basic writing structures, such as paragraph introduction, topic

sentences, and idea development. In high school and college, students are expected to have more in-depth writing literacy, such as understanding more complex writing structures, using argument sentences in writing, and understanding the use of references. In addition, language learning related to writing literacy at every level of education also teaches how to write complex sentences using various conjunctions. The teaching not only focuses on the method or technique of writing, but also on understanding the interrelationship of meaning between clauses in the complex sentence. The interrelationships between clauses in complex sentences that show the relationship between clauses is interdependent or equivalent are called taxis (Gerot, L and Wignell, P, 1995).

One approach that can be used in developing students' writing literacy is Systemic Function Grammar (SFG) or known as Systemic Functional Linguistics (SFL). Systemic Functional Linguistics is a theory first developed by Michael Alexander Kirkwood Halliday, this theory is used in understanding the structure and meaning of text. Halliday says that clauses in complex clauses are related to two systems, namely taxis and logical semantics. In this case, Halliday discusses taxis based on the study of Systemic Functional Linguistics (SFL) or what is familiarly called functional grammar (Halliday, 2000). Keep in mind that taxis are closely related to complex clauses. He divides taxis into two parts, namely parataxis and hypotaxis.

Parataxis is a relationship between clauses that have equivalent elements, that is, one clause begins and the other clause continues. The relationship contained in parataxis is symmetrical and transitive (Halliday, M.A.K. and Matthiessen, M. I., 2004). In SFL, paratactic clauses are symbolized by 1, 2, 3, and so on. Here is an example of a complex clause with a paratactic relationship.

*Mas Ari Renaldi selaku produser tulus hadir serta mengapresiasi konser akustik tohpati tersebut.*

**Table 1.** Clause Complex with Parataxis

7i	1	Mas Ari Renaldi selaku produser tulus hadir
7ii	+2	serta mengapresiasi konser akustik tohpati tersebut.

The example is a complex clause that has a paratactic or equivalent relationship. The equality in the complex clause is characterized by the conjunction and which connects the two clauses (7i and 7ii). According to Gerot and Wignell, other conjunctions or conjunctions that can characterize parataxis relationships include and, but, not only, but also, or, and so on (Kurniawan, Charly., 2021). In addition to parataxis, the relationship between clauses in complex clauses is characterized by hypotaxis relationships. (Halliday, M.A.K. and Matthiessen, M. I., 2004) reveals that hypotaxis is a relationship between clauses that has unequal elements. The inequality of clause elements is characterized by dependent clauses and independent clauses. (Gerot, L and Wignell, P, 2013) add that complex clauses that have hypotaxical relationships are marked with the Greek alphabet. The symbols for these clauses are independent clauses symbolized by  $\alpha$  (alpha) and dependent clauses symbolized by  $\beta$  (betha),  $\gamma$  (gamma), and so on. Here's an example of a complex clause with a hypotaxical relationship.

*Latihan gabungan ini dilakukan tiga hari sebelum konser berlangsung.*

**Table 2.** Clause Complex with Hypotaxis

21i	$\alpha$	Latihan gabungan ini dilakukan tiga hari
21ii	$x\beta$	sebelum konser berlangsung.

In this example, the hypotaxical relationship is found in the independent clause (21i) and the dependent clause (21ii). The relationship is marked by the conjunction before which is a temporal conjunction (time marker). Hypotaxis is a relationship between clauses that is not equivalent or in other words, non-symmetrical and non-transitive (Setyaji, 2020). Connecting words or conjunctions that can characterize the relationship include when, if, then, because, although, and so on.

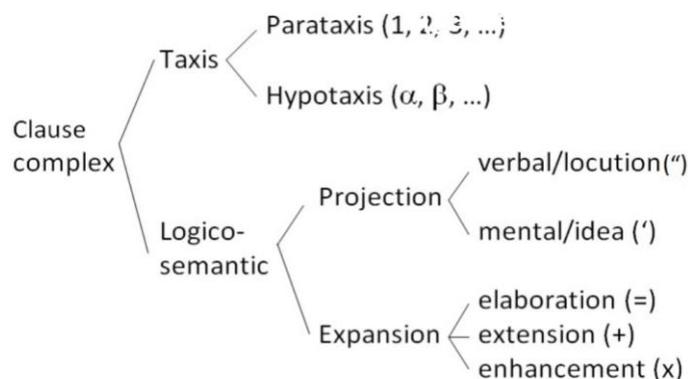


Figure 1. Complex Clause Concept Map from Halliday (2004)

Table 3. Identification of Taxis and Logico Semantic Relationships Gerot and Wignell (2013)

	<b>Elaborating</b>	<b>Extending</b>	<b>Enhancing</b>
<b>Paratactic</b>	✓ That is to say or (rather) ✓ In other words ✓ For example ✓ For instance ✓ In fact, like	✓ And, but ✓ Not only ✓ But also ✓ Except ✓ Or, yet	✓ So, then ✓ For, thus ✓ Or else ✓ Still ✓ Otherwise
<b>Hypotactic</b>	✓ Which	✓ Whereas ✓ While ✓ Instead ✓ Besides ✓ Rather than	✓ As, while ✓ When, where ✓ Because, if ✓ Even though ✓ Despite

Identification of Taxis and Logico Semantic Relations (Gerot, L and Wignell, P, 2013) In language learning practices in schools, the terms parataxis and hypotaxis are not introduced to students. Language teachers in schools generally use the term parataxis with 'equivalent compound sentences' and hypotaxis with 'multilevel compound sentences'. Teaching materials related to equivalent and nested compound sentences have been obtained by students, one of which is at the upper secondary level. This can be seen through the Competency Achievement Indicator (IPK) 3.4.2 of Indonesian subject, namely "Understanding the types of sentences (active and passive, transitive and intransitive, verbal and nominal, single and compound, major and minor, direct and indirect, version and inversion)". From the GPA, it can be seen that writing literacy related to writing complex clauses has been obtained by students, both from secondary and tertiary education levels.

Research on taxis has been conducted previously by Arso Setyaji with the title Translation Analysis of Taxis Markers in the Novel "The Old Man and The Sea" (Functional Systemic Linguistic Approach). The research in the form of a dissertation published in 2020 identified several things, namely (1) describing the interdependence and semantic logic of complex clauses in the source language realized into interdependence and semantic logic of complex clauses in the target language in the novel *The Old Man and The Sea*, (2) to describe the translation techniques of taxis markers used in translation from the source language to the target language, (3) to find out the forms of shifts found in the translated novel *The Old Man and The Sea*, and (4) to describe the writing quality of complex clauses in the target language. The findings of the study show that out of 400 sentences divided into 701 clauses, the most dominant type of taxis is parataxis and the most utilized semantic logic is extension. The translation technique used is conventional equivalence, while the types of shifts found in this study are shifts in the form of interdependence and semantic logic meaning. In addition, the translation quality of *The Old Man and The Sea* is generally good.

There have not been many studies related to taxis specifically. However, similar studies, such as the analysis of complex clauses in texts or novels, have been conducted by several researchers. One of them is a research conducted by Charly Kurniawan, et al. with the title *The Analysis of Clause Complex of Analytical Exposition Texts Written by the English Teachers of SMKN 2 Palangkaraya*. This research is a journal published in October 2021. The journal identifies complex clauses in exposition texts written by English teachers of SMKN 2 Palangkaraya using the theory of Systemic Functional Linguistics. The results found in this study are that there is good sentence complexity in the teacher's language production. The variety of taxis, logico semantic relations, and meanings produced by the teachers proves that their verbal language is already in a strong and good stage.

As stated earlier, that learning related to good writing literacy has been taught even from the secondary education level. This makes the assumption that students' writing literacy between levels of education has developed from various aspects, one of which is in the aspect of students' productivity in using complex sentences. This assumption raises several research questions, namely (1) what are the forms of taxis in complex clauses found in students' writing, especially at the secondary school and college levels; and (2) does the writing literacy of students between levels of education in producing the use of complex clauses experience an increase, decrease, or even unstable?

Based on the two research questions above, the objectives of this study are (1) to identify the form of taxis in complex clauses found in students' writing, especially at the secondary and higher education levels; and (2) to determine the productivity of the use of complex clauses in students' writing between educational levels. The benefits of applying Systemic Functional Linguistics or Systemic Functional Grammar in students' writing literacy are useful for developing effective writing skills. By understanding language, students can learn to adjust writing style, build cohesive texts, and express meaning clearly and concisely. A good arrangement of parataxis and hypotaxis in a complex of clauses in a paragraph will make the paragraph coherent. Therefore, the researcher felt it was important to identify the development of students' writing literacy between levels of education, both from high school and college levels. In this case, the researcher uses a Systemic Functional Linguistics (SFL) perspective analysis that focuses on analyzing taxis or relationships between complex clauses in recount texts.

## **METHOD**

This research uses a qualitative approach with descriptive methods. (Sugiyono, 2018) says that a qualitative approach is an approach that describes the results of analysis using descriptive methods, uses analysis in problem solving, refers to data, and utilizes existing theories as supporting material. The theories used in the qualitative approach in this research are Halliday's clause complex

theory and Gerot and Wignell's taxis theory. The data analyzed using the theory is presented descriptively to describe in detail the findings of this research.

The research data is in the form of clauses contained in complex clauses sourced from students' texts. The analyzed texts amounted to 18 texts from 18 students with different levels of education. The division of the 18 texts is 6 texts written by junior high school students, 6 texts written by senior high school students, and 6 texts written by college students. The data were collected using documentation technique. After the research data were collected, the data were analyzed through several steps. First, researchers read all the texts written by junior high school, high school, and college students. Then, the researcher classified the sentences contained in the text into clauses. Each clause is marked with certain symbols, for example the 1i symbol which means 1 indicates the sentence number in the text and i indicates the clause number in the sentence. In other words, the symbol 1i means the first sentence with the first clause. After the clauses were classified and given symbols according to the sentence and clause numbers, the researcher identified the data based on the types of taxis using the theories of Gerot and Wignell and Halliday. The researcher classified clauses with paratactic relations based on clauses that can stand alone or are equivalent to other clauses, while clauses with hypotaxical relations based on clauses that depend on other clauses. The last step was to calculate the percentage of occurrence of clauses with paratactic and hypotaxic relationships using the following formula formulated by (Hadi, 2002).

$$X = \frac{\sum E}{\sum T} \times 100\%$$

Description:

X : percentage of acquisition

E : frequency

T : total population

## FINDING AND DISCUSSION

Based on the data analysis, researchers found different results at each level of education. These results include the number of sentences, the number of clauses, simplex clauses, complex clauses with paratactic relations, complex clauses with hypotaxical relations, and minor clauses. Of the 18 texts analyzed, all texts have simplex clauses and complex clauses with paratactic and hypotactic relations in them. However, minor clauses were only found in texts written by senior high school and college students.

At the junior high school level, the researcher found 101 clauses. The clauses are classified into two forms, namely simplex clauses and complex clauses. Simplex clauses are clauses formed from one clause and were found in the texts of junior high school students as many as 18 clauses (17.82%). In addition to simplex clauses, complex clauses with paratactic interdependencies (relationships) were also found in 46 clauses (45.54%) and hypotaxical relationships in 37 clauses (36.63%). Texts written by junior high school students do not have minor clauses in them.

**Table 4.** Results of Analysis of Recon Texts of Junior High School Students

	Frequency	Percentage
Simplex Clauses	18	17,82%
Paratactic Relationship Complex Clauses	46	45,54%

Hypotactic Relationship Complex Clauses	37	36,63%
Minor Clauses	0	0
<b>Total</b>		<b>100%</b>

Setelah itu, pada jenjang menengah atas (SMA), terdapat 208 klausa. Klausa-klausa tersebut diklasifikasikan ke dalam klausa simpleks, klausa kompleks yang meliputi klausa dengan interdependensi parataksis dan hipotaksis, dan klausa minor. Berbeda dengan teks yang ditulis oleh siswa SMP, siswa menengah atas (SMA) sudah mampu memproduksi klausa minor. Dalam hal ini, peneliti menemukan klausa simpleks sebanyak 41 klausa (19,71%) dan klausa minor sebanyak 2 klausa (0,96%). Klausa kompleks dengan interdependensi (hubungan) parataksis sebanyak 107 klausa (51,44%) dan hubungan hipotaksis sebanyak 58 klausa (27,88%).

**Table 5.** Results of Analysis of Recon Texts of High School Students

	Frequency	Percentage
Simplex Clauses	41	19,71%
Paratactic Clauses	107	51,44%
Hipotactic Clauses	58	27,88%
Minor Clauses	2	0,96%
<b>Total</b>		<b>100%</b>

Furthermore, the results of analyzing texts written by university students are also different from the results of junior high and high school students. The researcher found 235 clauses. The clauses are further classified into several forms, namely simplex clauses, complex clauses with paratactic and hypotaxic interdependencies, and minor clauses. Simplex clauses are found in the text as many as 34 clauses (14.47%). Complex clauses with paratactic relations were found in 99 (42.12%) and hypotaxical relations in 101 clauses (42.98%). In addition, minor clauses were also found in the texts of college students, namely 1 clause (0.43%).

**Table 6.** Results of Analysis of College Students' Recon Texts

	Frequency	Percentage
Simplex Clauses	34	14,47%
Paratactic Clauses	99	42,12%
Hipotactic Clauses	101	42,98%
Minor Clauses	1	0,43%
<b>Total</b>		<b>100%</b>

## DISCUSSION

As Halliday (1994) has said before, clauses are divided into two forms, namely major clauses and minor clauses. In this discussion, the researcher focuses on analyzing the form of major clauses,

namely complex clauses. Complex clauses are formed from the head clause and the clauses that follow it. The clauses contained in a complex clause are connected by an interdependent logical meaning relationship. This dependency is called taxis (Setyaji, 2020). Taxis are classified into two types, namely parataxis and hypotaxis. Texts written by junior high school students to university students contain both types of taxis. The following are examples and discussions of complex clauses with paratactic relationships found in the texts of junior high school students to college students.

- (2i) 1 *Aku mencoba menghafalnya sampai larut malam,*  
(2ii) +2 *tetapi hasil yang aku pelajari tidak menerap di otakku.*

Based on the example above, the paratactic relationship between clauses is marked by the conjunction but. The conjunction means to give an exception. In other words, clause (2ii) provides an exception for clause (2i) so that the two clauses are symmetrical and equivalent. This equality can be seen from clause (2i) as the head clause or main clause and clause (2ii) as the clause that follows it. The existence of the conjunction but is also one of the markers of the paratactic relationship. This is as explained earlier about connectives that can characterize interdependence between clauses.

- (3i) 1 *Seni memberikan kita inspirasi untuk berpikir secara kritis,*  
(3ii) +2 *dan kita dapat mencari makna yang lebih dalam.*

In the example above, the two complex clauses are equivalent. It is characterized by clause (3i) which can stand alone and is not bound by clause (3ii). This type of relationship is called parataxis. Complex clauses can be characterized by the conjunction and which connects clauses (3i) and (3ii). The conjunction and aims to connect one clause to another, but these two clauses have equal status and can stand alone. This is also the case with the data examples below.

- (14i) 1 *Seorang anggota DPR dengan paras yang putih tinggi*  
(14ii) +2 *dan perutnya sedikit buncit.*

- (37i) 1 *Konser itu diakhiri dengan memainkan lagu manusia kuat dari tulus*  
(37ii) +2 *bersama para penonton.*

The data above is a complex clause that has a paratactic relationship. The relationship can be characterized by the conjunctions and in clause (14ii) and together in clause (37ii). In clauses (14i) and (14ii) the paratactic relationship is connected by the conjunction and. The conjunction forms a meaning that describes the object as having a tall white physique as well as a slightly distended stomach. Likewise, clauses (37i) and (37ii) are connected with together which means from Tulus as well as the audience simultaneously singing the song. The clauses are complex clauses whose inter-clauses have equivalent or symmetrical elements.

In addition to paratactic relationships, the student text also contains clauses with hypotaxical relationships. Hypotaxis relationships can also be called multilevel compound sentences. These clauses are characterized by the presence of dependent clauses and independent clauses. The dependent clause cannot stand alone if it is not with the independent clause. The following is data on clauses with hypotactic relationships obtained from texts of junior high school students to college students.

- (10i)  $\alpha$  *Seminggu kemudian, aku takut*  
(10ii)  $x\beta$  *jika nilai peringkatku menurun.*

(4i)  $\alpha$  *Aku memutuskan untuk tinggal bersama ayah,*  
(4ii)  $x\beta$  *sedangkan adik dan kakakku memilih tinggal bersama ibu.*

(15i)  $\alpha$  *Hari berikutnya kami memutuskan untuk tidak kemana-mana*  
(15ii)  $x\beta$  *karena kami masih merasa kelelahan.*

(17i)  $\alpha$  *Seseorang yang sudah terbiasa mencontek*  
(17ii)  $x\beta$  *maka dirinya tidak akan belajar.*

The data above are complex clauses with hypotaxical interdependence. The hypotaxical relationship in the data can be seen from the conjunction *if* in clause (10ii), while in clause (4ii), the conjunction *because* in clause (15ii), and the conjunction *then* in clause (17ii). The existence of these conjunctions makes the clauses that have conjunctions in them become dependent clauses. This hypotaxical relationship also suggests that the dependent clause cannot stand alone or be effective if it is not accompanied by an independent clause. The clauses that are independent clauses in the data above are clauses (10i), (4i), (15i), and (17i).

## CONCLUSION

Learning related to writing literacy has been given to students even from the secondary education level. Various materials related to improving writing literacy have also been obtained by students, one of which is material on sentence types, especially complex sentences or called complex clauses in SFL. Secondary school students (SMP and SMA) and university students have been able to write texts by producing complex clauses that use various conjunctions (conjunctions).

Based on the results of the study, the researcher concluded several things.

1. Overall, the clauses produced by students in writing texts have improved. It is characterized by 101 clauses produced by junior high school students, 208 clauses produced by high school students, and 235 clauses produced by college students. The clauses came from 6 texts at each level of education.
2. The writing literacy of junior high school students in the realm of producing complex clauses appears to be more dominant than simplex clauses, especially in complex clauses with paratactic relations (equivalent compound sentences). Nevertheless, this is a good thing and can be a stepping stone for the development of students' writing literacy in the future.
3. The same is true for high school students' writing literacy. The number of clause production is more than that of junior high school students. This means that high school students are already more productive in varying the use of conjunctions. Complex clauses with paratactic relationships (equivalent compound sentences) are also seen to dominate the types of clauses in high school students' texts. In addition, high school students have been able to produce minor clauses as a variation of the sentences in the texts they write although their existence is still very limited.
4. Meanwhile, at the tertiary level, students produced 235 clauses from the 6 texts analyzed. Unlike junior and senior high school students, university students tend to be productive in producing complex clauses with hypotaxical relationships (multilevel compound sentences). This indicates that university students have more complex writing literacy than junior and senior high school students because hypotaxical clauses are considered to have higher complexity compared to parataxis. Students' writing skills can be seen from their text production, one of which is from the construction of sentences and the use of more varied conjunctions. The use of conjunctions can be marked by looking at the construction of complex clauses in sentences. Students are expected to be able to organize several sentences into a good and varied paragraph so that the writing produced can be a cohesive and coherent text.

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