

Gender differences in writing complex sentences: A case study of Indonesian EFL students

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Abstract

This study investigated the Indonesian EFL students' proficiency in writing complex sentences and explored the gender differences in their writing products. Thirty-eight (38) high school students – 19 males and 19 females – were instructed to write a narrative account of the silent movie, *The Pear Film*, immediately after watching it. The result of the study revealed that the students' production of sentence complexity exhibited a sequential degree of difficulty from simple sentence (1 T-unit) to more complex sentences (2 T-units or 3 T-units). Female students had higher frequencies in producing T-units, and they also exhibited a more powerful imagination and creativity in building complex sentences. However, the males outnumbered the females in the production of lexical variety. This indicated that longer sentences are not always directly related to the breadth of vocabulary knowledge.

Keywords: gender differences, Indonesian EFL students, complex sentences, T-units, writing

Introduction

Earlier research on gender and language shows that there are differences between males and females in their ways of using language (Lakoff, 1975; Eckert, 1989; Tannen 1990; Cameron, 2005). In the context of second or foreign language learning between male and female learners, numerous studies have reported that there is a discrepancy between males and females regarding the linguistic skills. Female students were reported to display a higher level of competence in their oral as well as written products in comparison to their male counterparts (Ng, 2010; Saeed, Ghani, Ramzan, 2011; Bijami, Kashef, Khaksari, 2013; Cornett, 2014).

Cornett (2014), for example, observed gender differences in the syntactic development among English speaking adolescents – three males and three females – in retelling a story orally. A T-unit analysis was used to measure the syntactic development of the male and female adolescents to

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determine their syntactic complexity. The findings showed that females (9.25) appeared to have more advanced realm of syntactic development as displayed in the result of mean length T-unit than the male adolescents(8.45).

Another study by Ng (2010) indicated the differences between 30 boys and 30 girls in learning English writing in Hong Kong. The results revealed that girls made fewer grammatical mistakes than boys. Moreover, the girls have higher mean score in the attitudes of learning English writing than the girls. In a different context, Kamari, Gorjian, and Pazhakh (2012) conducted a study on 150 students at Islamic Azad University of Ahvaz and compared both genders in terms of proficiency in writing a descriptive paragraph and an opinion paragraph. The results showed that male students are more superior in writing an opinion paragraph essay while female students are better in writing a descriptive one.

In Indonesia, English has been considered as an important foreign language, and therefore it is nowadays taught as the main foreign language in schools of all levels. Taking into account that different schools may apply different educational policy towards the teaching of English, it is natural that the Indonesian EFL learners' proficiency levels in performing the language vary, depending on the length of exposure to the language. For example, those who attend educational programs in bilingual/international schools will have much more exposure to the use of English than those who are enrolled in national schools. These students are immersed in an environment where a greater number of their teachers speak the English language; more so, some of the teachers are native speakers of English in the country of workplace. As stated by Crystal (2003, p.4), "language can be made a priority in a country's foreign language teaching, even though this language has no official status. This becomes the language which children are most likely to be taught when they arrive in school." In this case, students who are studying in bilingual/international schools are presumably better in their performance of English.

One way to evaluate the learners' proficiency in EFL is by assessing how well they can write in the language. The learners' writing development can be assessed from a wide range of measures, one of which is by analyzing the use of complex sentences based on the T-unit (Hunt, 1965; Gaies, 1980; Larsen-Freeman, 1983). The complexity of the T-unit is related to how many clauses the learner connects or includes within a sentence.

What is a T-unit? Hunt (1970, p.189) defines a T-unit as "the shortest unit into which a piece of discourse can be cut without leaving any sentence fragments as residue". Each *T-unit*, according to Hunt (1970), contains one independent clause and its dependent clauses. Dependent clauses, which are connected to the independent clause via subordinate conjunctions (e.g. *that, when, if, whether, though, although*), function as

noun clauses, adjective clauses, or adverb clauses. Even if two independent clauses are connected with a coordinating conjunction (e.g. *and*, *but*, *or*, *nor*), the total number of T-units is two, not one. Accordingly, Hunt (1970) underscored that a sentence has two (or more) T-units when independent clauses are conjoined (e.g. *There was a woman next door, and she was a singer*), but a single T-unit when one or more clauses are embedded in an independent clause (e.g. *There was a woman next door who was a singer*). Hunt (1970) also presented a table of the T-units to view the complexity of the sentence production, as shown in Table 1.

TABLE 1
Hunt's (1970) T-Units and their corresponding sentence samples

T-unit	Sentence
1 T-unit (1 independent clause)	Ana ate the apple.
1 T-unit (1 independent clause with extension)	Ana ate the apple that fell from the tree.
1 T-unit (1 independent clause with a dependent clause)	Ana ate the apple after she found it.
2 T-units (2 independent clauses)	Ana ate the apple and she took a nap.

This study was interested in exploring the production of sentences by EFL students, 19 male and 19 female Grade 12 high school students from a bilingual school in Jakarta, Indonesia. The study used students' narrative texts as the source of data. It looks at how well these students are in producing complex sentences in English, a language that is not the students' native language. This study – which used Hunt's (1970) T-unit measurement for the complex sentences produced by the students – was an endeavor to answer the following research questions:

1. How was the male and female students' proficiency in producing complex sentences in the narrative texts?
2. What differences were there between the complex sentences produced by the male students and those produced by the female students?

Research Methodology

The participants of the study are 38 Indonesian Grade 12 students – 19 males and 19 females – aged between 17 and 19 years old from a private bilingual school in Jakarta, Indonesia. In this school, the medium of instruction is English, and so most of the time the students have to communicate in English. Of the 38 students, 19 did not start their Early Years (EY) and/or elementary school years in this school. However, these

19 students mentioned that in their previous schools they also used English language. All participants speak *Bahasa Indonesia* as their first language.

In referring to the participants in this study, the authors assigned a code name to each participant in order to protect their privacy. For example, for the male students we used *Boy 1*, *Boy 2*, and so on; and for the female students *Girl 1*, *Girl 2*, and so on.

The data was collected by using a stimulus. A six-minute silent movie entitled “*The Pear Film*”, which was produced in 1975 by Wallace Chafe (<https://www.youtube.com/watch?v=bRNSTxTpG7U>), was shown to the participants. The participants had no prior knowledge about the film until the time they watched it. The students’ spontaneity in constructing the essays was based on their schema. The writing process together with the movie presentation was done within a period of 40 minutes. The essays were collected right after the session to ensure that all data are accounted for. Correspondingly, the sentences were assessed manually to identify the frequencies of the T-units based on Hunt’s (1970) fundamental yardstick for measuring the complexity of the sentence produced by the male and female students.

Furthermore, in order to generate the total number of different words (types) and total number of words (tokens) produced by the male and female students, *Antconc* software (<http://www.laurenceanthony.net/software/antconc/releases/AntConc344/>) developed by Lawrence Anthony was used. The results were computed to get the type-token ratio (TTR) in order to explore the richness of the vocabulary produced by the male and female student in writing narrative essays. TTR is computed based on the total number of types divided by the total number of tokens (Robinson, 1995).

Findings and Discussion

This section discusses the general proficiency of the students in writing complex sentences and the gender differences in the production of complex sentences. Some findings are discussed based on themes.

The students’ proficiency in writing complex sentences

In this study, the syntactic complexity measure focuses on the production of complex sentences by the L2 students, both male and female, which is shown by the complexity of the T-units. As previously described, a T-unit involves an independent clause along with other dependent clauses. Graph 1 displays the overall results of the T-units based on the narrative essays of the 38 high school students. To visualize the patterns, Table 2 presents the projection of these T-units with corresponding examples from the students’ writings.

GRAPH 1

Overall result of complex sentences in T-units

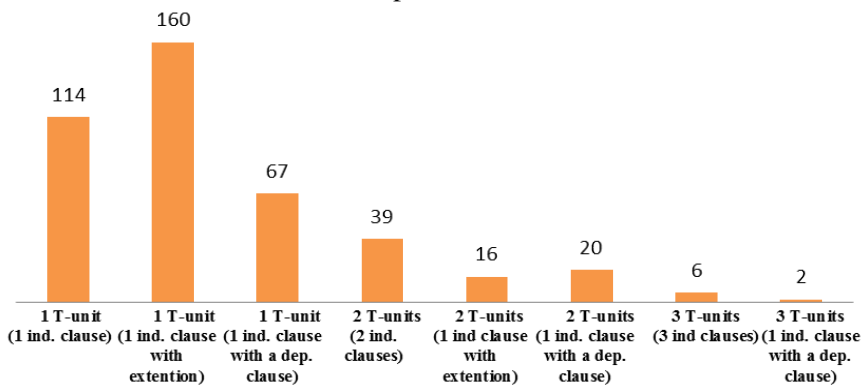


TABLE 2

T-Units an example

1 T-unit	2 T-units	3 T-units
<p>1 independent clause e.g. <i>This is my only source of income.</i> (Girl 10)</p>	<p>2 independent clauses e.g. <i>He stopped and he stole one bucket of pears.</i> (Boy 12)</p>	<p>3 independent clauses e.g. <i>He fell from his bike and he couldn't bring himself to stand but the boys helped him.</i> (Girl 9)</p>
<p>1 independent clause with a dependent clause e.g. <i>As he was searching for his basket, the three boys passed by.</i> (Girl 16)</p>	<p>2 independent clauses with a dependent clause e.g. <i>While he was farming his pears, one guy passed by and he took a look at the farmer's pears.</i> (Boy 3)</p>	<p>3 independent clauses with a dependent clause e.g. <i>He passed by a girl and he got distracted that he hit a rock and he fell down.</i> (Girl 14)</p>
<p>1 independent clause with extension e.g. <i>The three boys continued walking after collecting the pears.</i> (Boy 2)</p>	<p>2 independent clauses with extension e.g. <i>The goat was tempted and nearly took a piece but the owner stopped it.</i> (Girl 15)</p>	

Graph 1 shows that the highest frequency is occupied by 1 T-unit (1 independent clause with extension) with 160 occurrences. This is followed by 1 T-unit (1 independent clause) (114), then by 1 T-unit (1 independent clause with a dependent clause) (67), by 2 T-units (2 independent clauses) (39), by 2 T-units (2 independent clauses with a dependent clause) (20), by 2 T-units (2 independent clauses with extension) (16), by 3 T-units (3

independent clauses) (6) and finally 3 T-units (3 independent clauses with a dependent clause) (2).

Noticeably, the production of sentences reveals a pattern. If the sentence contains a 1-T unit, the frequency pattern from highest to lowest is displayed as 1 T-unit (*1 independent clause with extension, 1 independent clause and 1 independent clause with a dependent clause*, respectively). However, if the sentence presents two or three T-units, the pattern is 2 or 3 T-units (*2 or 3 independent clauses and 2 or 3 independent clauses with a dependent clause*).

In addition, whether the sentence is a 1 T-unit or 2 T-units or 3 T-units, the sequence is as follows: *independent clause* followed by *independent clause with a dependent clause*. As regards to 2 or 3 T-units, the most common connectors that link sentences together are the coordinating conjunctions *and* and *but* as demonstrated in the following examples:

- He fell on the ground *and* all the pears are scattered. (Boy 3)
- He loaded them to the baskets below the tree *and* he already had two baskets full. (Girl 14)
- The boy struggled to carry it with his bike *but* he did it. (Boy 1)
- He brought the basket of pears with him *but* karma will always haunt him back. (Girl 2)

Graph 1 does not only show 1 T-unit with all other extensions but it also extended until 2 or 3 T-units with extensions. This suggests that as the participants are promoted from one grade level to another, the complexity of sentences are extended and enhanced bearing in mind Hunt's (1970) findings on the development of sentences in the writing of the 12th grade high school students. Furthermore, the maturity level of their sentence production becomes more accurate and their diction is enhanced in the process. Consequently, the current study solidifies the findings of Mukminatien (1997) that the higher the course level, the more complex sentences the students produce in their essays. Tsang and Wong (2000) additionally supported that the students extended their writing length and wrote more matured syntax in terms of longer and more accurate units and complex sentences.

Gender differences in the production of complex sentences

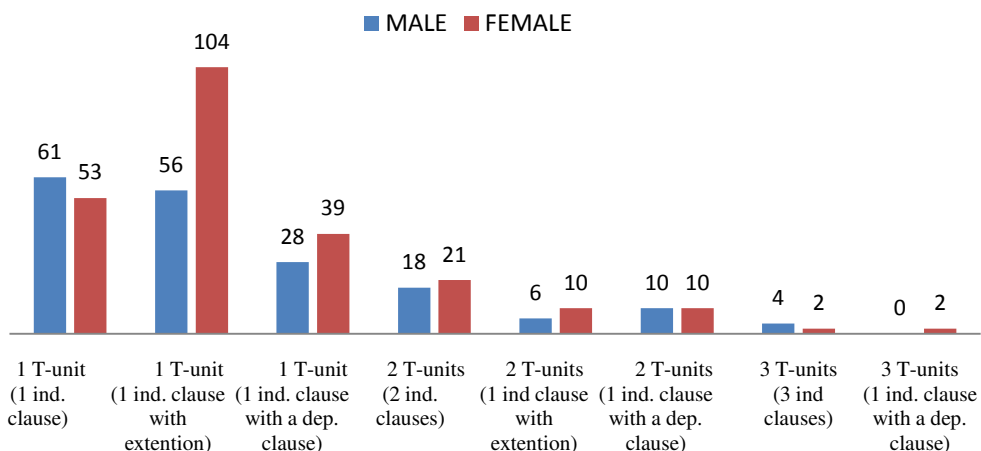
This section discusses the comparison between the male and female students in their production of complex sentences. Graph 2 below presents the comparison between the male and the female production of complex sentences.

We can see in Graph 2 that the male students' first preference is 1 T-unit (1 independent clause) (61), followed by 1 T-unit (1 independent clause

with extension) (56), then by 1 T-unit (1 independent clause with a dependent clause) (28), 2 T-units (2 independent clauses) (18), 2 T-units (2 independent clauses with a dependent clause) (10), 2 T-units (2 independent clauses with extension) (6), 3 T-units (3 independent clauses) (4). None of the male students produced a 3 T-unit consisting of 3 independent clauses with a dependent clause.

GRAPH 2

Comparison between the male and female production of complex sentences



On the other hand, the female students’ production of sentences from the most number of frequency to the least are as follows: 1 T-unit (1 independent clause with extension) (104), 1 T-unit (1 independent clause) (53), 1 T-unit (1 independent clause with a dependent clause) (39), 2 T-units (2 independent clauses) (21), 2 T-units (2 independent clauses with a dependent clause) and 2 T-units (2 independent clauses with extension) (10), and finally 3 T-units (3 independent clauses with a dependent clause) and 3 T-units (3 independent clauses) (2).

The findings presented that male and female students followed a pattern in writing sentences from simple sentence (1 T-unit) to complex sentences (2 T-units and to 3 T-units). Furthermore, in summing up all the 1 T-units of the male participants (145) and the female participants (196), it exhibited that the females have a towering preference on 1 T-unit (1 independent clause with extension). The findings also showed that the female students overshadowed the male students in terms of constructing the 2 or 3 T-units. Females produced 41 instances of 2 T-units while the males had 34. With regard to the frequency of the 3 T-units, both genders displayed the same number (4); although the males showed all four occurrences in 3 independent clauses while the females two occurrences for each (e.g. independent clauses and independent clauses with a

dependent clause). Observably, this hinted that the female students produced more lengthy and complex sentences than their male counterpart.

Inspecting the narrative essays of the females, they exhibited creativity and colorful imagination in writing different plots (e.g. economic turmoil in Europe, orphan boy adopted by bi-racial Mexican Chinese couple, great depression in Atlanta) using the same primary material, the silent movie entitled *The Pear Film* with a storyline about a man who was picking pears from a tree and a boy who stole a basket full of pears and rode off his bike away. Interestingly, Girl 6 justified her lengthy and complex sentences:

I just finished reading the novel "The Godfather". The plot of the novel inspired me to write a narrative essay depicting the life of the godfather whom I associated with the farmer in the silent movie. Not the usual one though, but I still followed the sequence of the story. I believe that inspired me to make my essay a bit longer and interesting.

In a similar study, Eriksson, Marschik, Tulviste, Almgren, Pereira, Wehberg, and Gallego (2012) found that female participants are more advanced than male participants in language abilities specifically in communicative gestures, productive vocabulary, and in combining words. Correspondingly, Tse, Kwong, Chan, and Li (2002) set out to determine sex differences in language ability among Cantonese-speaking children particularly focusing on the syntactic domain of language. They discovered that the females outperformed the males in mean length of utterance, some sentence types and structures, and syntactic complexity.

Equally important in exploring the sentence complexity is the comparison between the male and female students' production of the total number of different words (types) and the total number of words (tokens) to discover the richness of their vocabulary. This is presented in Table 3.

TABLE 3

Males' and females' production of types of words and total number of words

Participants	Types	Tokens	TTR
Males	679	3,157	21.51%
Females	855	4,616	18.52%

Table 3 shows the comparison between the males' and females' production of types of words and total number of words. It revealed that males produced 679 types and 3,157 tokens with a TTR of 21.51%. Conversely, the females produced 855 types and 4,616 tokens with a TTR of 18.52%.

The finding exhibited that the females constructed longer sentences and more types than their male counterpart. However, this exposed the reality that longer sentences are not always directly related to the richness and breadth of the vocabulary. In this context, the females (18.52%) produced lesser lexical diversity than the males (21.51%) in writing narrative essays.

This current finding can be associated with Vidakovic and Barker's (2009) study which explored the lexical progression in general purpose English target texts which suggested that although the average length of words and sentence, and the number of different words increased with proficiency, lexical variation did not differentiate according to proficiency levels. Accordingly, this also solidifies the claim of Mulac, Seibold, and Farris (2000) that men used more words overall, whereas women used longer sentences. Notably, Lakoff's (1975) observation appears to support the current findings. She speculated that longer sentences are forms in women than in men, possibly resulting in the impression of more speech. For example, women are more likely to compound a request: "Will you help me with these groceries, please?" is more characteristic of women than "Help me" or even "Please help me with these groceries." Nonetheless, Williamson (2009) has an opposing claim. His research findings suggested that the more types there are in comparison to the number of tokens, the more varied is the vocabulary, i.e. there is greater lexical variety.

Accordingly, the findings of the production of complex sentences between male and female students are summarized in three major points. First, both male and female students constructed the sentences from simple to complex; that is, their frequency in producing complex sentences started from the highest which is 1 T-unit, followed by 2 T-units, and finally 3 T-units. Second, female students produced more lengthy and complex sentences than their male counterpart. They also exhibited creativity and powerful imagination in constructing the narrative essay; that is, they deviated from the norm of the story – the farmer picking pears and the boy who carried a basket full of pears – to diverse plots (e.g. economic turmoil in Europe, orphan boy adopted by bi-racial Mexican Chinese couple, great depression in Atlanta). Third, female students (18.52%) produced lesser lexical diversity than the males (21.51%) in writing narrative essays.

Conclusion and pedagogical implication

This study revealed that in producing sentence complexity in writing a narrative essay, the EFL learners preferred to construct 1 T-unit (*I independent clause*) over and above other sentence structures. Their writing proficiency exhibited a sequential degree of difficulty from simple to more complex; that is, from 1 T-unit to 2 T-units and finally 3 T-units. This

solidifies the Second Language Acquisition theory (Krashen & Terrel, 1983) that the maturity in writing is shown by the learners' ability to produce complex sentences. This research also validates a previous study that is related to the students' extended writing length and more matured syntax in terms of longer and more accurate units and complex sentences (Tsang & Wong, 2000).

With regard to the production of sentence complexity between the male and the female students, the findings uncovered the reality that the females outperformed the males. The females used their strong imagination and powerful sense of creativity in building complex sentences. These complex sentences were usually linked with connecting conjunctions such as *and* and *but*. Although the females had higher frequencies in producing T-units, surprisingly, the males (21.51%) revealed to acquire richer vocabulary than the females (18.52%). This presented that longer sentences are not always directly related to the breadth of vocabulary that the learners produced. In contrary, the authors acknowledged the limitations of the study such as the use of conjunctions (subordinate conjunctions like *that*, *when*, *if*, *though*, *although*, and coordinating conjunction like *and* and *but*). Further research can be conducted to explore how the participants use the conjunctions to connect and produce complex sentences in writing essays.

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