

Investigating the Relationship between Second Language Writing Proficiency and  
Noun Modifications

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### **Abstract**

This research investigated the relationship between L2 writing proficiency and noun modification in an intensive English program (IEP). The study is based on the developmental stage index of linguistic features proposed by Biber et al. (2011). In the study, the 14 noun modifiers included in Biber's index were selected and manually checked in the essays written by 18 IEP students during a language-proficiency test. The participants were divided into 2 groups, based on their essay scores: group 1 and group 2 had lower and higher writing proficiency, respectively. The results of the study showed that group 2 produced more instances and types of noun modifiers (per 1,000 words). Also, group 2 used more noun modifiers belonging to intermediate and advanced stages of the index (e.g., relative clauses and prepositional phrases). However, both groups rarely used nonfinite and infinitive modifiers. Consequently, ESL teachers may organize writing workshops to teach noun modifiers to students with different writing proficiencies, for example, participial adjectives, relative clauses, and prepositional phrases to students with lower, intermediate, and advanced writing proficiency, respectively.

*Keywords:* noun modification, L2 writing proficiency, writing development

## Investigating the Relationship between Writing Proficiency and Noun Modification

### **Background**

In terms of L2 writing, researchers had believed there is a concrete relationship between grammatical complexity and clausal subordination for a long time (Biber, Gray, & Poonpon, 2011; Biber, Gray, & Poonpon, 2013). Because of this belief, since 1960s, T-unit became an authentic way of evaluating students' L2 writing proficiencies. However, recent articles have critical reviews on the T-unit-based measuring method and present that the phrasal features should be the typical features for academic writing (Biber et al, 2011; Biber et al, 2013). With a large amount of corpus-based studies done, Biber et al (2011) also proposed the writing developmental stages index of L2, closely associated with many linguistic features.

Parkinson and Musgrave (2014) carried out the first study in the field of applied linguistics to explore the relationship between L2 writing proficiency and noun modification, via selecting the noun modifiers from Biber et al.'s index. However, there are two limitations in their research. Parkinson and Musgrave used the final drafts of the academic writings with different topics in their research. Students could use noun modifiers different when writing different topics and students may also get external help (e.g., writing tutor) to revise their drafts (Parkinson & Musgrave, 2014). As a result, the limitations would affect threat the internal validity of their research. To bridge this gap, I investigated the relationship between L2 writing proficiency and noun modification by careful control these two variables.

### **Research Questions**

1. Do students with different L2 writing proficiencies use different numbers and types of noun modifiers in their essays?
2. How do the noun modifiers used by students with different L2 writing proficiencies reflect the

students L2 writing development?

## **Methods**

### **Texts and Participants**

The texts used in this study are the essays from the independent writing section of the PIE placement test in spring 2014. Altogether, 18 essays are selected from the total 35 essays in the placement test based on students' approval of participating in PIE research. The mean length of the selected essays is 165 words with the shortest length of 65 words and the longest length of 323 words. The test takers were 18 international students who took the PIE placement test at the beginning of spring 2014. They are from three different countries, namely China, Saudi Arabia, and Brazil, and their comprehensive English proficiencies range from low to high (i.e., from PIE level 3 to PIE level 6). As a result, the selected students are largely representative of the present PIE student population. During the test, the students worked on the exactly same topic by themselves.

### **Procedure**

There are 3 general steps taken to carry out this research. First, the test takers' essays were divided into two groups based on their L2 writing proficiencies indicated by their essays writing scores. Group 1 has lower L2 writing proficiency, while group 2 has higher L2 writing proficiency. Second, the 14 noun modifiers were selected from the writing developmental stages index of Biber et al. (2011) (see Appendix A). Third, all the noun modifiers in the table were manually highlighted in the selected essays and the number of the noun modifiers was calculated based on these highlighted essays. To ensure the accuracy of this step, an interrater assisted me to check the accuracy of the highlighted noun modifiers. The two comparisons were made between the groups to answer the research questions. The first comparison was made to

investigate if there are significant differences on the numbers and types of noun modifiers between group 1 and group 2. The second comparison was about checking the noun modifiers to see which stages they belong, in order to identify the L2 writing development for students in group 1 and group 2, respectively. With these two comparisons, a relationship can be established between L2 writing proficiencies and the use of noun modifiers.

### **Results**

There are some general findings from the research. Group 2 produced much longer essays and more instances of noun modifiers than group 1 did in the same test time. For types, pre-modifiers were much more common in the essays written by both groups, twice as frequent as the number of post-modifiers. However, group 2 tended to use more post-modifiers identified as occurring at advanced stages of Biber et al.'s index in their essays (see Appendix B).

In addition, there are also some specific findings in the study. First, group 2 produced more attributive adjectives in their essays, while group 1 used more predicative adjectives in their essays. Second, group 2 used some prepositional phrases expressing abstract meaning, but group 1 produce no noun modifier of this kind. Third, group 2 used much more instances of relative clauses in their essays than group 1 did. Fourth, both groups rarely used any noun modifiers associated with nonfinite or infinitive linguistic features (see Appendix C).

Moreover, a surprising point was also found. When I compared the normalized data (per 1,000 words), I found that the students from both groups produced the same amount nouns as modifiers. However it might not possible for both groups have a similar ability to use nouns as modifiers. The reason behind this is that, in the topics of the test essay, there is an example for nouns as modifiers (i.e., home country), so most students just copied to use this term in their essays (See Appendix C).

### **Relevance of PIE and Second Language Learning**

We can glean some implications associated with teaching English writing from this study. Writing instructors may help students use more adjectives in their essays. To do this, the instructors can show students different types of sentence structures, such as ditransitive pattern and complex transitive pattern, to assist students to use more attributive adjectives in their essays (Biber, Conrad, & Leech, 2012, P. 47).

In addition, writing instructors should organize writing workshops to teach students how to use particular noun modifiers based on their writing development. As we know, all PIE students are assigned into different levels based on their comprehensive English proficiencies instead of a particular kind of language proficiency. Each writing workshop should be organized to a particular group of students to students, because they need to receive writing instructions on specific types of noun modifiers they did not use before.

Furthermore, writing teachers are suggested to keep track of students' use of nonfinite and infinitive linguistic features, because these linguistic features are in most L2 developmental writing stages. In this study, the PIE students show no ability to use these linguistic features, which means that these noun modifiers could be hard points for most L2 learners. By monitoring the use of nonfinite and infinitive linguistic features, writing instructors could help students improve their writing proficiency step by step.

## References

- Biber , D., Gray, B., & Poonpon, K. (2011). Should we use characteristics of conversation to measure grammatical complexity in L2 writing development. *TESOL Quarterly*, 45(1), 5-35.
- Biber , D., Gray, B., & Poonpon, K. (2013). Pay attention to the phrasal structures: going beyond t-units---A response to WeiWei Yang. *TESOL Quarterly*, 47(1), 192-201.
- Biber , D., Conrad, S., & Leech, G. (2012). *Longman student grammar of spoken and written English*. (11<sup>th</sup> ed., pp. 47). Edinburgh: Person Education Limited.
- Mackey, A., & Gass, S. (2004). *Second language research: Methodology and design*. (1st ed., Vol. 4). New York: Routledge.
- Parkinson, J., & Musgrave, J. (2014). Development of noun phrase complexity in the writing of English for academic purposes students. *English for Academic Purpose*, 14, 48-59.

## Appendix A

*Features and Position of Noun Phrases Modifications*

<u>Stage</u>	<u>Noun Modifiers</u>	<u>Position</u>	<u>Examples</u>
2	Attributive adjectives	Pre	Big table
	Participial Pre-modifiers	Pre	Exciting game
3	Relative Clauses	Post	The man who is driving
	Nouns	Pre	Rice cooker
4	Possessive Noun	Pre	Judy's book
	Of prepositional phrases (concrete meaning)	Post	The capital of China
	Other prepositional phrases (concrete meaning)	Post	The restaurant in the hotel
	Nonfinite clauses	Post	The questions confusing me
	Of prepositional phrases (abstract meaning)	Post	The role of honesty
	Other prepositional phrases (abstract meaning)	Post	The power from knowledge
5	Prepositional phrase + nonfinite complementary clauses	Post	The policy of shutting down all the bookstores
	Noun complement clauses	Post	The idea that we stay here
	Appositive noun phrases	Post	My best friend, Cody
	Infinitive clauses	Post	Two hours to go

## Appendix B

*The Length and Noun Modifiers for the Selected Essays*

<u>Group</u>	<u>Number of Essays</u>	<u>Average of Length</u>	<u>Number of Noun Modifiers (per 1000 words)</u>
1	8	120	75.1
2	10	199	95.2

*Number and Percentage of Pre-modifiers and Post-modifiers*

<u>Types of the Noun Modifiers</u>	<u>Group 1 (per 1000 words)</u>		<u>Group 2 (per 1000 words)</u>	
Pre-noun modifiers	59	76.6%	64	67.4%
Post-noun modifiers	25	23.4%	30	32.6%

*Numbers and Percentage for the Noun modifiers in Each Stage*

<u>Stages</u>	<u>Group 1</u>		<u>Group 2</u>	
	Numbers (1,000 words)	Percentage	Numbers (1,000 words)	Percentage
2	52	59.5%	52	53.9%
3	9	31.9%	29	29.6%
4	3	4.1%	10	10.6%
5	2	2.8%	4	5.3%

## Appendix C

*Numbers of the 14 Noun Modifiers in Each Stage*

<u>Stage</u>	<u>Noun Modifiers</u>	<u>Group 1</u>		<u>Group 2</u>	
		Ori	Nor	Ori	Nor
2	Attributive adjectives	31	31	89	45
	Participial Pre-modifiers	1	1	3	2
3	Relative Clauses	2	2	13	7
	Noun	13	14	26	13
	Possessive Noun	1	1	1	1
	Of prepositional phrases (concrete meaning)	2	2	2	1
4	Other prepositional phrases (concrete meaning)	6	6	14	7
	Nonfinite clauses	1	1	0	0
	Of prepositional phrases (abstract meaning)	2	2	2	1
	Other prepositional phrases (abstract meaning)	0	0	18	9
5	Prepositional phrase+ nonfinite complementary clauses	0	0	0	0
	Noun complement clauses	1	1	2	1
	Appositive noun phrases	1	1	6	3
	Infinitive clauses	0	0	2	1