

A COMPARATIVE ANALYSIS: LINKING ADVERBIALS IN LEARNERS' ACADEMIC WRITING

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Abstract

This study examines the frequency and usage patterns of linking adverbials (LAs) in Indonesian EFL learners' essay writing in comparison with those of native speakers. The ICNALE corpus is used as a source for the learner and reference corpora: Indonesian EFL learners and native speakers' themed essays, each consisting of 100 essays. The sub-categorizations of LAs adopted Celce-Murcia and Larsen-Freeman's (1999) where they are divided into: additive (in addition, besides, furthermore), adversative (however, in contrast, actually), causal (therefore, consequently, in that case), and sequential (first, last, second). The results found a similar distribution in the usage frequency of linking adverbials. Further analysis discovered a significant overuse in additive LA also and underuse causal LA on the other hand. A more detailed and comprehensive investigation of why such things are apparent found similar misuse cases to previous research, one of them is the lack of understanding in semantic properties. On the basis of the findings, a number of pedagogical implications can be taken.

Keywords – *linking adverbials, Indonesian EFL learners, academic writing, essay*

Introduction

Writing plays a significant role in academic studies for learners. It is an essential skill every student needs to acquire as most examinations, reports, and researches are in the form of writings (Chokwe, 2013; Bacha, 2002). Additionally, having an academic writing skill is beneficial during students' further possible work in academic institutions and companies. On the other hand, Milton & Tsang (1993) pointed out that writing, even in the first language, takes a huge effort. They further emphasized that for foreign and second language learners writing becomes harder as it requires expertise in the form and function of the target language. Similarly, Richards & Renandya (2002) claimed that among the other three skills, writing is perceived as the most complicated one for L2 learners due to the highly complex skills it contained.

One feature in academic writing standards is to have a textual cohesion. Biber, Johansson, Leech, Conrad & Finegan (1999) stated that academic writing is perspicuous in two ways: source acknowledgement and signposting in ideas organisation. In arranging the ideas, an academic writing employs markers and points. This use of various signalling words are of assistance in creating the relationships among various parts of a text. Beside using subordinating and coordinating conjunction, this can be obtained using linking adverbials (Lei, 2012). Linking adverbials is categorized under the adverb as clause elements with circumstantial adverbials and stance adverbials; rather than adding information to a clause, it functions as a connector (Biber, Leech, & Conrad, 2002).



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A number of studies have been carried out exploring the use of linking adverbials in EFL students' academic writing (Granger & Tyson, 1996; Tapper, 2005; Lei, 2012; Chen, 2006). Reportedly, the use of linking adverbials is perceived as tricky for EFL learners. For example, Tapper (2005) found an overuse of clarifying connectives in Swedish learners which was influenced by their first language and Lei (2012) found a misuse in Chinese students' writings as a result from their inadequacy of register awareness. As observed by Ishikawa (2011), logical lucidity in speech and writing is frequently said to be lacking in learners of English. To produce a textual cohesive ties when writing in foreign language is more challenging than it is generally accounted for (Milton & Tsang, 1993).

Corpus-based research has recently becoming a prominent research in second language acquisition and English language teaching. In investigating LAs, such research compares the writings of native speakers to EFL learners. However, there are currently only a few in the context of Indonesian EFL learners' writing, for example Sanjaya, Sitawati, and Suciani (2015) who examined the hedges comparison in research articles of English and Indonesians scholars. There is a need for further said studies with different representatives in order to have a more comprehensive description in the field of linking adverbials. As pointed out by Lei (2012), due to the importance of LAs in second language use and language learning, a rigorous depiction of how LAs are used in EFL learners will be beneficial for second language research. Accordingly, the present study will investigate the use of linking adverbials in the academic writing of Indonesian EFL learners.

This study intends to address the research questions as follows:

1. What are the most frequently used linking adverbials in the academic writing of Indonesian EFL learners compared to that of native speakers?
2. What and how are the linking adverbials that are overused, misused, and underused in the academic writing of Indonesian EFL learners compared to that of native speakers?

Methodology

Data collection

The corpora used for the learner and reference corpora is the International Corpus Network of Asian Learners of English (ICNALE). The ICNALE is an approximately 2-million words collection of controlled essays, produced by 2,600 college students as learners of English from ten countries and areas in Asia and 200 English Native Speakers. The ICNALE comprises of four modules: Spoken Monologue, Spoken Dialogue, Written Essays and Edited Essays, compiled since 2007. Provided that the focus of the present study is essays of Indonesian EFL as the learner corpus and Native Speaker of English (NS) as the reference corpus, the researcher took the data from the Written Essays module from both groups.

The Indonesian EFL essays comprises of a sample of 100 works (22,763 words), collected using the proportional stratified sampling. The writers of the learner corpus have various backgrounds of English proficiency which is defined using the Common European Framework of Reference (CEFR).



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Table 1. Mapping of the Test Scores on the CEFR Proficiency Bands

Levels	TOEIC	TOEFL PBT	TOEFL iBT	IELTS	STEP	TEPS	CET	ST
A2 (Waystage)	-545	-486	-56	3+	+		---	-24
B1_1 (Threshold; Lower)	550+	487+	57+		2+	417+	4+	25+
B1_2 (Threshold; Upper)	670+	527+	72+	4+	2+	513+	4+	36+
B2+ (Vantage or higher)	785+	567+	87+	5 (5.5)+	Pre1+	608+	6+	47+

Source: *The ICNALE Online*

One of the key features of ICNALE is Proficiency Control. The writers' L2 proficiency has an important factor in influencing the language (Ishikawa, 2013). The ICNALE conducted an objective measure of the writers' proficiency levels using major English proficiency tests such as TOEIC, TOEFL, and IELTS. The results were then mapped on the proficiency bands using the CEFR. However, in ICNALE, four of the bands are modified: A1 level is deleted, B1 is divided into B1_1 and B1_2, and B2, C1, and C2 is merged into B2+. Dr. Shin Ishikawa, the ICNALE Project Leader, stated in his article about ICNALE that the modified proficiency bands were made in the purpose of creating a more representative of Asian learners' varying L2 proficiency in a more appropriate way (Ishikawa, 2013). The following is the figure of English proficiency bands of the participants, including the Indonesian EFL.



Figure 1. English proficiency bands of EFL in the ICNALE corpus

The present study employs the learner corpus with all four proficiency bands presented in the corpora, provided that learners are described to be capable in joining sentences together with connectors starting from A2. The descriptors of each level according to the CEFR related to creating logical sentences are presented below. These descriptors are under the category 'Written Production', sub category 'Written reports and essays'.

Table. 2 The CEFR Descriptors

C2	Can produce clear, smoothly flowing, complex reports, articles or essays which present a case, or give critical appreciation of proposals or literary works.
C1	Can provide an appropriate and effective logical structure which helps the reader to find significant points Can write clear, well-structured expositions of complex subjects, underlining the relevant salient issues. Can expand and support points of view at some length with subsidiary points, reasons and relevant examples.
B2	Can write an essay or report that develops an argument systematically with appropriate highlighting of significant points and relevant supporting detail Can evaluate different ideas or solutions to a problem. Can write an essay or report which develops an argument, giving reasons in support of or against a particular point of view and explaining the advantages and disadvantages of various options. Can synthesise information and arguments from a number of sources.
B1	Can write short, simple essays on topics of interest. Can summarise, report and give his/her opinion about accumulated factual information on familiar routine and non-routine matters within his/her field with some confidence. Can write very brief reports to a standard conventionalised format, which pass on routine factual information and state reasons for actions.
A2	Can write simple texts on familiar subjects of interest, linking sentences with connectors like 'and,' 'because,' or 'then.'

Source: Common European Framework of Reference For Languages: Learning, Teaching, Assessment Companion Volume with New Descriptors, 2018



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In ICNALE, the reference corpus consists of 200 essays. However, it is important to note that there are two categories presented in it: college students and non-college students (mostly consists of teachers, professionals, business persons, etc.) from which the researcher chose the college students category. Ishikawa (2013) asserted that it is more suitable to compare learners' works with those of NS college students'. The college students category consists of 100 essays with 22,125 words in total.

As noted earlier, limiting the writing topic would make a more ideal comparison between groups due to the lexical homogeneity (Ishikawa, 2010). The corpora used in the present study discussed dis/agreement and reasons on the following proposed statement: "Smoking should be completely banned at all the restaurants in the country". The ICNALE claimed that its purpose is to be a reliable database for contrastive interlanguage analysis (CIA), hence the strict control of prompts and tasks. It controls the time for essay writing and the length of an essay as well. It is expected that the comparison would have an actual reflection of differences between the use of linking adverbials in Indonesian EFL and ENS students essay writing.

Data analysis

Adopting the contrastive interlanguage analysis (CIA) (Granger, 1998; Granger, 2002), this research aims to explore how the use of LAs different in the Indonesia EFL and native students writing. CIA is divided into two types of comparison: "comparisons of learner language and one or more native speaker reference corpora (L2 vs. L1), and comparisons of different varieties of learner language (L2 vs. L2); the present research employs the first type. Gilquin (2007) claimed that in this method of analysis has a significant contribution. He further explained that patterns of overuse, underuse, and misuse have been brought to light, therefore contributing in filling the gaps in the "knowledge of the different stages of interlanguage development".

The first task of the analysis is to identify the LAs used in the learner and reference corpus, both the ones composed of one single word and multiple words. The researcher applied the concordancing feature of AntConc 3.5.7. This software is a freeware corpus analysis toolkit, used for concordancing and text analysis. The concordance tool provides the frequency of a particular word or phrase within a specified word characters. In the present study, this allows users to see how each LA is used in a particular context. Data extracted by the help of this tool was then manually reviewed whether they would actually work in the target semantic categories or not. The items that were not relevant would be excluded. This step is important to avoid disambiguity, for example *next* can be an adverb and an adjective.

The next step was to calculate the individual and overall LAs frequency of occurring in both group of students. The LAs extracted from the introduction paper were then categorized based on the framework by Celce-Murcia and Larsen-Freeman (1999) as discussed in the literature review. For mutual comparison, as suggested by Ishikawa (2010), the raw frequency of items was converted into adjusted raw frequency per 10,000 tokens in the groups under study. In accordance to the average of the two adjusted frequencies, the top 15 items were then selected for a more comprehensive and detailed analysis.



Findings and Discussion

Frequency and the most frequently used linking adverbials

The calculation identified 181 and 200 LAs used in the learner and reference corpus respectively. The following table displayed the percentage use of LA of both corpora. Based on the adjusted frequency per 10,000 words, it can be seen that there is an underuse of LAs in the writing of Indonesian students compared to that of native speakers (Table 4). Despite that, there are few notable results of overuse, underuse, and misuse of LAs observed when examined individually. This is in line with the findings of Granger & Tyson (1996) which stated no overuse of LAs between both learners, while their qualitative analysis of individual LAs revealed otherwise.

Table 3. Overall figures of LAs usage

	Learner Corpus	Reference Corpus
Corpus size in words	22,539	22,124
Number of LAs	181	200
LAs/10,000 words	80.3	90.3

Table 4. Percentage use of LAs by Celce-Murcia and Larsen-Freeman (1999) category

	Learner Corpus	Reference Corpus
Additive	60.2%	37.5%
Adversative	18.7%	25.5%
Causal	11%	19%
Sequential	9.9%	18%

A similar case in the use of LA category is demonstrated by both groups (Table 5). Additive is used most often by Indonesian students in writing (60.2%) and native speakers (37.5%). Similarly, adversative, causal and sequential followed behind in that specific order. The result is in contrary to the findings from Chen (2006), in which adversative (*however, in fact, instead, on the contrary*) accounts for the biggest number of contribution in the reference corpus. However, Chen employed published academic writings of professional writers (journal article) to be the control corpus, whereas the current study used native speakers' essay writings. This difference of corpora may be the reason why such contradictory exists. Adversative LAs allows writers to express opposition; the comprehensive nature of journal article might allow writers to use more adversative LAs in connecting a diverse perspectives they incorporate in their writings. On the other hand, the length of essays used for the control corpus might limit writers in including varying references, therefore lowering the chances of using adversative LAs.



Overuse and misuse of the linking adverbials

Table 5. Top 15 most frequently used LAs

Linking Adverbials	Semantic Categories	NNS		NS		Average of Adjusted Freq.
		Raw Freq.	Adjusted Raw Freq. (per 10,000 words)	Raw Freq.	Adjusted Raw Freq. (per 10,000 words)	
also	Additive	89	39.48	69	31.18	35.33
actually	Adversative	12	5.32	8	3.61	4.46
therefore	Causal	10	4.43	17	7.68	6.05
then	Causal	9	3.99	9	4.06	4.02
first	Sequential	8	3.54	6	2.71	3.12
in fact	Adversative	7	3.10	2	0.90	2
then	Sequential	6	2.66	5	2.25	2.45
moreover	Additive	6	2.66	0	0	1.33
furthermore	Additive	5	2.21	2	0.90	1.55
besides	Additive	5	2.21	1	0.45	1.33
however	Adversative	5	2.21	13	5.87	4.04
at least	Adversative	5	2.21	6	2.71	2.46
in addition	Additive	4	1.77	2	0.90	1.33
however	Adversative	3	1.33	12	5.42	3.37
on the other hand	Adversative	2	0.88	2	0.90	0.89

NNS: Non-native Speakers; NS: Native Speakers

Overuse is vague; previous researchers suggested that overuse is not, or at least has not, evidently defined (Chen, 2006; Myung, 2015). Some compared the overall frequency figures to see the patterns of overuse (and underuse) (Granger & Tyson, 1996; Chen, 2006), while some others, such as Myung (2015) and Lei (2012) took a conservative approach from a quantitative perspective, that is setting a cutoff point as a benchmark to see whether certain LAs are underused or overused. The present study decided on comparing the frequency figures based on the average adjusted raw frequency per 10,000 words. As seen in Table 6, nine out of top fifteen most frequently used LAs are overused by Indonesian EFL learners in compared to native speakers.



Table 6. Linking adverbials overused in Indonesian EFL Learners

Linking Adverbials	NNS		NS		Average of Adjusted Freq.
	Raw Freq.	Adjusted Raw Freq. (per 10,000 words)	Raw Freq.	Adjusted Raw Freq. (per 10,000 words)	
also	89	39.48	69	31.18	35.33
actually	12	5.32	8	3.61	4.46
first	8	3.54	6	2.71	3.12
in fact	7	3.10	2	0.90	2
then	6	2.66	5	2.25	2.45
moreover	6	2.66	0	0	1.33
furthermore	5	2.21	2	0.90	1.55
besides	5	2.21	1	0.45	1.33
in addition	4	1.77	2	0.90	1.33

Table 6 displays the individual LAs that are overused by Indonesian EFL learners. Among the use of LAs, the present study took a particular interest in *moreover*. As displayed in the table above, *moreover* ranked the seventh in the most often overused LAs, occurring 1.97 times per 10,000 words. This finding is in line with the result from Granger & Tyson (1996) and Myung (2015) and with similar kind of misuse. According to Celce-Murcia (1999), mainly, *moreover* is added in arguments where there were several premises “to support a conclusion of some sort”. In the essay writing, Indonesian learners tended to use *moreover* as simply an indicator for an addition of information, whereas as Granger & Tyson (1996) elaborated, *moreover* is used as a “powerful final” of an argument.

Example 1

It means that the government do not apply their rule about keeping clean and green environment well. Even government let active smoker to make global warming. *Moreover*, smoking bring bad effect to economic side. Here, we talk about how much money that active spend to buy cigarettes. (NNS Corpus)

In Example 1, the two preceding statements talked about the government and environment. In the third sentence, the writer used *moreover* to point out that s/he is adding new information, that is the impact of smoking to the economy, to the previous premises, rather than creating a concluding argument. Case alike is shared in the writing of Korean and French EFL learners.

Another overused connector by learners to be discussed is *besides*. This linking adverbial occurs 2.21 times per 10,000 words as shown in the table. The examples of *besides* can be seen in the following examples from Indonesian learners' essay writings:

Example 2

Restaurant becomes a place that is convenient for consumer. Leisure can be supported from the cleanliness. *Besides*, in the restaurant is also not allowed to smoke. Lot of restaurants that visitors will not be comfortable with smoke. (NNS Corpus)



How the writer applies *besides* in the essay writing obeys the definition for emphatic connectors which signal “not only that (what I just said), but also this (what I am saying now)” by Frodesen and Eyring (2000: 203) in Chen (2006). However, similar study by Field and Yip (1992) explored the use of additive connectors in student writing, in which they concluded that *besides* is an “informal connector” and is produced frequently in spoken language. This is consistent with the work of Granger & Tyson (1996), who suggests that learners seemed to be uninformed of their “stylistic restrictions”. Such behaviour might be caused by the lack of explanation of each linking adverbials presented in English textbooks and how LAs are listed as interchangeable (Crewe, 1990). Additionally, there seems to be a misunderstanding of learners between the use of *besides* and *beside*. In the two examples below, the use of *besides* is confused with *beside*. This problem might emerge due to the level of similarity in the spelling.

Example 3

Visitors who smoke in the room can disturb the comfort of other customers. *Besides that*, the other customers will receive the bad impact of cigarette smoke. Although the effects may not be felt now, these effects are real and many people had experienced it. (NNS Corpus)

Example 4

That it same as we kill our body slowly, the toxic in smoke can kill our property of our brain, so the smoke can also make us a stupid person, *besides* kill our property of our brain, smoke also make us be a lazy people, because is we smoking it can make us lazy to do something. Maybe we are not a active smoker, but we are a Passive Smoker, because our friend or our family maybe a smoker. (NNS Corpus)

Underuse of the linking adverbials

Following the previous analysis for overused LAs in Indonesian students compared to native speakers, the underused LAs were identified by comparing the frequency figures based on the adjusted raw frequency per 10,000 words.

Table 7. Linking adverbials underused in Indonesian EFL Learners

Linking Adverbials	NNS		NS		Average of Adjusted Freq.
	Raw Freq.	Adjusted Raw Freq. (per 10,000 words)	Raw Freq.	Adjusted Raw Freq. (per 10,000 words)	
Therefore	10	4.43	17	7.68	6.05
Then	9	3.99	9	4.06	4.02
However	5	2.21	13	5.87	4.04
at least	5	2.21	6	2.71	2.46
However	3	1.33	12	5.42	3.37
on the other hand	2	0.88	2	0.90	0.89



Table 7 exhibits that Indonesian learners inclines towards the underuse of causal linking adverbials (*therefore* and *then*) and adversative linking adverbials (*at least*, *however*, *on the other hand*, and *however*). The third most infrequently used LA is *however* with frequency of occurring 2.21 per 10,000 words. Likewise, Tapper (2005) and Myung (2015) discovered that the nonnative speakers under study, Swedish and Korean EFL learners respectively, underused the adversative linking adverbials. Despite underusing *however*, Myung (2015) found that students are able to use the LA in an appropriate and correct way in their writing. The underuse of adversative linking adverbials are likely to emerge due to Indonesian learners' lack of familiarity of this type of adverbials. Lei (2012) suggested that a complex relationship of the discourse units emerges due to the nature of "reserving about the idea in the preceding clause", hence writers would find it tricky to recreate.

Another noteworthy finding is that not only the use of *then* is underuse, the examples of essays demonstrated that some writers confused *then* with *than*. This might be similar to the case of *besides* and *beside*, that there is a deficiency of understanding semantic properties (Granger & Tyson, 1996) and the spelling of both words are almost similar hence learners would confuse between the two.

Example 5

Many people can attack the disease from smoking, because we breath smoke from cigarette, and we call passive smoker. But the smokers call active smoker. It's dangerous from passive smokers then active smokers. Because we breath smoke from cigarette no filter. (NNS Corpus)

Conclusions

This study compares the use of linking adverbials between Indonesian EFL learners and native speakers' academic writing based on the ICNALE corpus. The quantitative and qualitative analysis indicate there are differences in the frequency of use: Indonesian learners tend to underuse linking adverbials compared to native speakers, however in individual linking adverbial there are cases of both overuse and underuse. In percentage, the variation in the use of overall linking adverbial types are similarly distributed between the two corpora, with additive linking adverbials being the most frequently used and sequential as the infrequently used linking adverbials. Further analysis on LAs as individuals discovered a significant overuse in *also* and a significant underuse in *at least*. A more detailed and comprehensive investigation of why such things are apparent found similar cases to previous research.

On the basis of the findings, there are a number of pedagogical implications that can be taken from the study. A heavy reliance on certain linking adverbials can be avoided by proper teaching rules in this subject (Myung, 2015). Indonesian EFL learners' attention should particularly be drawn to the underused linking adverbials, for instance to adversative or contrastive linking adverbials such as *however*, *yet*, and *instead*. An overuse of additive linking adverbials can also be an indicator of a piece of writing with merely "listing and addition", as observed by Myung (2015), which is important to be incorporated in a writing, but should not be the "only" content. The lack of knowledge in style and semantic properties points out the urgent need of a more detailed explanation on each linking adverbials by teachers and avoidance



in teaching the “interchangeable” list of linking adverbials presented in textbooks (Crewe, 1990).

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