
RESEARCH ARTICLE

Grammatical Cohesion in Argumentative Essays by International EAP Learners in New Zealand

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ABSTRACT

The challenges encountered by non-native English-speaking students in writing cohesive essays have been canvassed in scholarly research. However, cohesion problems in essays written by international English for Academic Purposes (EAP) learners in the New Zealand context do not appear to be addressed adequately. This may pose a challenge for educators when trying to unpack the issues these learners encounter in written discourse and how best to address such issues. Therefore, this paper aims to investigate grammatical cohesion in EAP learners' argumentative essays. The main instrument for this study was a sample of 37 argumentative essays written by international EAP learners at a tertiary institution in New Zealand. The study utilized AntConc software for analyzing instances of reference and conjunctions in the data. Frequencies of ellipsis and substitution were analyzed manually. The findings show that learners employed a variety of grammatical cohesive devices in their writing. The learners prominently used references and conjunctions. However, limited use of substitution and ellipsis was obvious in the essays, which seems to suggest that learners need further training on grammatical cohesive devices and how to employ them in written discourse.

KEYWORDS

Academic writing; cohesion, cohesive devices, EAP, argumentative essays

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1. Introduction

Higher education has witnessed the internalization of campuses in the last two decades due to the unprecedented numbers of international students joining tertiary institutions in English-speaking countries (Robinson, 2018). This influx of students has not been without concerns about students' proficiency levels in English since students will be required to take part in tasks that entail writing texts using accurate and cohesive language. This has given English increasing importance (Swales, 2004). International students whose first language (L1) is not English, especially those studying towards an EAP course, are expected to communicate effectively globally. Cohesion and coherence have always been considered as two features of good writing in English (Halliday & Hasan, 1976; Halliday, 2000). Several studies have found that there is a positive correlation between writing quality and using cohesive devices (Crossley & McNamara, 2010; McCulley, 1985; Janjua, 2012). This paper attempts to contribute to this thread of research by identifying the types of grammatical cohesive devices used by international EAP learners at a tertiary institution in New Zealand when writing argumentative essays. In addition, this paper aims to investigate the problematic areas that may contribute to the lack of cohesion in EAP learners' written discourse.

2. Literature review

A comparison is often made between coherence and cohesion. Coherence is defined as "the organization of discourse with all elements present and fitting together logically" (Hinkel, 2004, p. 279), which results in the readers' ability to understand the text (O'Reilly & McNamara, 2007). On the other hand, Cohesion occurs where the interpretation of one part of the text is dependent on another's (Halliday & Hasan, 1976) using some explicit cues, so basically, cohesion occurs at the sentence level.

Cohesion is perceived as essential for writing quality (Collins, 1998; DeVillez, 2003) since it contributes to the unity of the text (Halliday & Hasan, 1976). When dealing with cognitively demanding texts, cohesion is even more important (Loxterman et al., 1994). It should be acknowledged, though, that cohesion tends to be one of the problematic aspects to many students regardless of their level in English. This could be attributed to several factors, including lack of prior knowledge about cohesive devices and their role in written discourse in English. Another possible reason is the difference between how cohesion is achieved in learners' L1 and English.

Halliday and Hasan (2003) differentiate between grammatical cohesion (e.g., reference, substitution, ellipsis & conjunctions) and lexical cohesion (e.g., reiteration, collocation). The present paper focuses only on grammatical cohesion in argumentative essays. The following sections will highlight these cohesive devices in more detail.

2.1 Reference

In written texts, reference denotes items whose interpretation or identity depends on something else either within or outside the text (Halliday, 1994; Eggins, 2004). In English, these items are personal (i.e., *Mike, he, the chair, it*), demonstrative (i.e., *here, there*), and comparative (i.e., *fewer*). This reference helps writers to introduce such items and "keep track of them once they are in the text" (Eggins, 2004, p. 33).

Eggins (2004) identifies three types of reference. Homophoric reference indicates shared information of culture (e.g., *the sun, the moon*). Exophoric reference is about information from the immediate context of a situation (e.g., *put it down next to her*). Endophoric reference exists within the text, and it falls into three types: 1) anaphoric, which refers to an item (or referent) that has been mentioned earlier in the text (e.g., *Michael went to the bank. He was annoyed because it was closed*); 2) cataphoric, which refers to a referent that has not been mentioned yet (e.g. *Although I phone her every week, my mother still complains that I don't keep in touch often enough*); and 3) esophoric, when the referent occurs in the phrase immediately following the presuming referent item (e.g. *When the storm of grief had spent itself*).

2.2 Substitution

Substitution occurs when a linguistic item in the text is used to replace another (Halliday & Hasan, 2003). Generally, substitution is a strategy that is used to avoid repetition in the text. According to Halliday & Hasan (1976, p. 90), there are three types of substitution based on the function of the substitute item, and these are:

2.2.1 Nominal substitution (Using one)

Example: *Pete owns the black sedan. The blue one belongs to Mike.*

2.2.2 Verbal substitution (Using do)

Example:

A: *Has he had dinner yet?*

B: *He must have done. There's no food in the fridge.*

2.2.3 Clausal substitution (Using so)

Example:

A: *Is there going to be an earthquake?*

B: *It says so.*

2.3 Ellipsis

Halliday and Hasan (1976) view ellipsis as substitution by zero. Ellipsis is defined as "the set of resources by which full repetition of a clause or clause element can be avoided" (Thompson, 2004, p. 180). Hillier (2004) distinguishes between textual ellipsis, which can be recovered from the text, and situational ellipsis, which can be understood from the immediate situation. There are three types of ellipsis: nominal, verbal, and clausal. The following are examples of ellipsis by Nunan (1993). In the examples below, the (x) represents an ellipsed element:

nominal ellipsis	verbal ellipsis	clausal ellipsis
<i>My kids play an awful lot of sport. Both (x) are incredibly energetic.</i>	A: Have you been working? B: Yes, I have (x).	A: Why'd you only set three places? Paul's staying for dinner, isn't he? B: Is he? He didn't tell me (x).

2.4 Conjunctions

Achieving cohesion through conjunctions involves using ties whose main function is to connect ideas in a text or discourse semantically (Paltridge, 2006)—when using conjunction, understanding an idea "accommodates the interpretation" of the idea that follows (Eggins, 2004, p. 47). Conjunctions act as a cohesive tie in the text to present the ideas in a meaningful way for the reader (Bloor & Bloor, 2004). Halliday and Hasan (1976) distinguish between four categories of conjunctions, including additive (e.g. *and*), causal (e.g. *so*), temporal (e.g. *then*), and adversative (e.g. *yet*).

2.5 Lexical cohesion

This type of cohesion is achieved by the selection of vocabulary. Halliday and Hasan (1976) categorize lexical cohesion into 1) reiteration, which subsumes repeating a lexeme, using a general word to refer to a specific lexical item, and using a synonym or superordinate terms; and 2) collocation.

2.5.1 Reiteration

According to Halliday and Hasan (1976), reiteration may involve the form of repetition, synonymy, antonym, hyponym, and metonymy. Using these forms may make it easier for the reader to understand meaningful relationships underlying a sequence of sentences in a text (Chan et al., 2000). Bloor and Bloor (2004) argue that such meaningful relationships between words help create cohesion when they are used together in the same short stretch of written English (p. 87). Nunan (1999, p. 123) provides examples of the different types of reiteration:

2.5.2 Repetition

"What we lack in a newspaper is what we should get. In a word, a "popular" newspaper may be the winning ticket.

2.5.3 Synonym

"You could try reversing the car up the slope. The incline isn't all that steep."

2.5.4 Superordinate

"Pneumonia has arrived with cold and wet conditions. The illness is striking everyone from infants to the elderly."

2.5.5 General word

A: "Did you try the steamed buns?"

B: "Yes, I didn't like the things much."

2.5.6 Collocation

Cohesion in collocation denotes "the linking of lexical items that often co-occur in a span of text" (Halliday and Hasan, 1976, p. 284). Benson et al. (1986) view collocations as fixed phrases that are stored in one's mind. They classify collocations into two categories: lexical and grammatical collocations. The former ones consist of verbs, nouns, adjectives, and adverbs. The latter category consists of a verb, noun, or adjective in addition to a preposition or grammatical structure (Benson et al., 1986).

2.6 Previous studies on cohesion in student writing

Scholarly research that investigates cohesion in the written discourse of L2 learners has covered several genres of student writing, including expository essays (Johnson, 1992; Meisuo, 2000), argumentative essays (Alarcon & Morales, 2011; Liu, & Braine, 2005). A study by Crane (2000) suggests that Japanese students have a good understanding of the theoretical aspects of English, i.e., the structures. However, they "seem to lack the ability to coordinate functional usage of this knowledge with semantic patterning" (Crane, 2000, p. 142). Another study by Hinkel (2001) argues that even students at advanced levels utilize a "restricted repertoire of features in constructing unified text" (p. 111). Junina (2019) shows how the conventions to achieve cohesion in Arabic differ considerably from those of English, which justifies why many Arabic-speaking students encounter difficulties in effectively

achieving cohesion when writing in English. In her study of how EFL Arab college students process cohesive devices in a text, Al-Jarf (2001) found that substitution was the most challenging for learners to process, followed by reference and ellipsis. In contrast, processing conjunctions in the text was the easiest.

In the Chinese context, Liu and Braine (2005) examined the use of cohesive devices in 50 essays written by undergraduate EFL students. They found that the students employed various cohesive devices in their writing. The authors also found that the students mostly used lexical devices (2658), followed by references (1423) and conjunctions (698). Such use of devices in students' essays resulted in some reference and lexical cohesion issues. Hessamy and Hamed (2013) investigated the use of cohesive devices in the writings of 95 Iranian EFL learners at an Upper-Intermediate level. They found that the learners prominently used references (5868), followed by lexical cohesion (4896), conjunctions (3280), substitution (8), and ellipsis (2). A similar study in the Indonesian context by Mawardi (2014) investigated cohesive devices in 20 university students' writings. The author found that the cohesive devices that were used in the essays were: references (1047), followed by lexical cohesion (626), conjunctions (353), ellipsis (57), and substitution (2).

A more recent study by Rudiana (2021) examined how Indonesian EFL students achieve grammatical cohesion in argumentative essays. The study found that the students predominantly used personal references and additive conjunctions. The author found that employing such grammatical cohesive devices enhances the quality of students' writing.

Scrutinizing the literature shows a lack of research that examines the written discourse of international learners on EAP courses. This paper, therefore, aims to investigate how international EAP students at a tertiary institution in New Zealand employ cohesive devices in essay writing to achieve grammatical cohesion. The study also aims to identify the main issues that feature in these students' writings and how educators can help learners with such difficulties.

3. Methodology

3.1 Sample

The researcher has used a sample of 37 argumentative essays written by international EAP learners in New Zealand. Each essay was at least 250 words in length on the assigned topic: 'Children's use of social media - Problems and suggested solutions.' The students were studying a 10-week academic English course, which emphasizes writing, listening, note-taking skills. All the learners had been placed at the Upper-Intermediate level based on their scores on a standardized test (i.e., IELTS, PTE) or an internal assessment by the institution. Before writing the essay, the learners had been introduced to the structure of a problem-solution essay and had practised writing at least three essays on different topics. In addition, learners were introduced to the concept of cohesion and the different devices that could be used to compose cohesive texts. In class, equal emphasis was given to the different types of grammatical cohesion, i.e., references, conjunctions, substitution, and ellipsis.

3.2 Data analysis

Following Halliday and Hasan's (1976) theory of cohesion, the learners' essays were analyzed to identify the cohesive devices employed and the issues that feature in the essays. Halliday and Hasan's (1976) taxonomy of cohesion was selected as a framework in this paper as it fully depicts cohesion in English and how best to analyze it. In addition, this taxonomy has been influential in guiding the analysis of data for many research projects on cohesion (e.g., Wang & Sui, 2006; Genc & Bada, 2006).

To analyze the data for this paper, the researcher used AntConc software, which is a text analysis toolkit for identifying concordances in texts. The software was developed by Laurence Anthony (2004). The process involved compiling the 37 essays in one document, which was converted into a Plain Text file. The file was then opened with AntConc. This was followed by identifying the keywords in the data starting with references and then conjunctions. Special consideration was given to the use of two specific pronouns: '*it*' and '*that*' to make sure they are used as reference pronouns in the essays. After that, the researcher manually identified the instances of substitution and ellipsis in the essays.

3.3 Ethical considerations

Ethics approval was obtained from the Ethics Committee at the institution where the research was conducted. The learners were informed about the purpose of the research, and they all provided written consent for having their essays used for this study. The essays have been anonymized to protect the privacy of the learners. Upon completion of this research, the findings will be shared with the learners and teachers at the institution.

4. Findings and Discussion

The data analysis shows that the learners employed various references in their essays. Table 1 illustrates the types of references used and the number of references students utilized in their writing. Similarly, Table 2 depicts the instances of conjunctions used

in the essays. This is followed by some examples from the data. In what follows, grammatical cohesive devices are presented in more detail.

4.1 Grammatical cohesion

4.1.1 References

As Table 1 below shows, the most prominent cohesive devices in the essays were references of different types (890 occurrences). On the top of the list of these references were personal references (495). The most prominent reference of these was *'their'* (18.20% of the total references), followed by the references *'they'* and *'it'* (14.83% and 12.02%, respectively). To contextualize these references, below are some examples from the essays. In the examples below, the antecedent is written in bold, and the reference is underlined to clarify what the learner did in the essay to achieve grammatical cohesion.

- Firstly, **the content** on social media may not be all suitable for children. For example, it may contain images or videos which are violent.
- Firstly, if **children** spend a lot of time on social networks, they might not be able to study well because they waste a lot of time. This problem not only affects their academic performance but also makes them hate studying.
- Firstly, it may be very harmful to **children's** vision when they are addicted to these social media apps.

Demonstrative references were also used considerably by the learners (268). The reference *'this'* was mostly employed (17.41%), followed by *'these'* (7.41%). Below are some examples of demonstrative references from the essays:

- **A lack of sleep probably can make children feel depressed and also might weaken their immunity.** This can damage their health.
- **Access to social media could detract real-life relationships and social skills in children.** This happens because they spend a lot of time in the virtual world instead of doing other worthwhile activities, like playing sports with friends joining school clubs.
- This essay suggests two solutions, **control by parents and control by companies.** These strategies are possible and efficient, but we still need to overcome some difficulties.

The least employed reference category was comparative references (130), of which *'more'* has the highest frequency in the essays (89), followed by *'other'* (30). Some of the examples that display such references are:

- One possible solution is that parents should pay more attention to their children and spend more time with them.
- Instead of spending most of the time on the Internet, it is obviously helpful for children to spend more time on exercises to keep healthy.
- A further solution would be for other organizations to encourage children to develop other hobbies.

One observation about learners' usage of the reference *'more'* is the overuse of the phrase *'more and more'* that could be read awkwardly in the texts. A similar observation has been made by Bahaziq (2016), who found that while learners use correct comparative references mostly accurately, including others and more, they tend to excessively use the phrase *'more and more'* which results in having "disjointed ideas" (p. 115).

In addition, it is obvious that the learners used only anaphoric reference, which seems to suggest that many learners have limited knowledge of the different types of reference. Table 1 below summarizes the frequencies and percentages of the references used in the 37 argumentative essays.

Table 1: Instances of references in the essays

Type of cohesion device	Reference	Frequency	Percentage
Personal references	I	11	1.23%
	it	107	12.02%
	we	14	1.57%
	they	132	14.83%
	their	162	18.20%
	them	67	7.52%
	us	2	0.22%
Demonstrative references	this	155	17.41%
	these	66	7.41%
	those	22	2.47%
	that	22	2.47%
Comparative references	different	3	0.33%
	more	89	10%
	same	8	0.89%
	other	30	3.37%
Total of references		890	100%

The findings above regarding the usage of references in writing seem to confirm findings by several other studies, which suggest that reference features more prominently than other cohesive devices in many L2 learners' writing (Alarcon & Morales, 2011; Ampa & Basr 2019; Bahaziq, 2016). However, many L2 learners may still find references in English ambiguous. If encountered by vague referents, students may have difficulty understanding the reference ties. In cases where the referents and antecedents are apart in a text, learners may find it difficult to comprehend the text. They may end up reading the text several times, which results in slowing down their processing and ultimately comprehending the text. Therefore, learners need to be gradually introduced to similar examples of challenging references. This could make it easier for learners to grasp this cohesive device. It will also enhance learners' confidence in being able to identify the correct referents and antecedents in texts.

In addition, noticing activities are expected to appeal to visual and kinaesthetic learners who prefer to see and work with the text. Learners could be provided with model texts that display instances of referents, and they could read the text in groups. The teacher may demonstrate one example from the text to help learners with the referring expressions and the referents. This can be done by drawing an arrow from the antecedent to the referent. Each group then displays their text around the classroom and explain to each other the connections they found in the text. In later lessons, learners may be encouraged to bring their own texts and make sure there are instances of antecedents and referents (Guse, 2011). Of importance here is lowering students' affective filter by telling them that searching back for referents and antecedents in a text is not a problem as this may happen even in a person's L1. At the same time, it is suggested that teachers emphasize the importance of using a variety of cohesive devices without overusing some devices over others as this may result in producing awkward texts.

4.1.2 Conjunctions

As Table 2 below shows, the learners employed 790 instances of conjunctions in the 37 essays. It can be seen that 'additive conjunctions' were prominently used (544 occurrences) compared to other types of conjunctions. The conjunction 'and' seems to be overused by learners (400 frequencies), followed by the conjunction 'or' and 'also' (65 and 40 respectively). Below are some examples of these conjunctions from the learners' essays:

- *It can cause extreme damage to children's mental health and may negatively impact their future lives if they watch violent videos and become addicted to them.*
- *If the youth use social media by cell phones or computers for a long time, it might have a bad effect on their eyes.*
- *If children join social media too young, it will also cause an increasing crime rate among young children.*

The learners also used causal conjunctions (92 occurrences). The most employed conjunction was 'because' (44), followed by 'so' (18).

- *This might be a long term solution because knowledge always makes people more rational.*
- *This solution is powerful because most children cannot obey their parents.*
- *Generally, children lack the ability to judge wrong from right, so they are easily cheated by criminals.*

The data analysis shows that there were 82 frequencies of adversative conjunctions, and the conjunction 'however' was mostly used by learners (33 occurrences), followed by 'but' (22). Some of the examples include:

- *School can teach the children some skills like not giving any money to those who are just chatting on the Internet or not hanging out with strangers on social media. However, children may not know how to define a stranger or a friend as those strangers may use a friendly tone to attract them.*
- *It is the same as companies' benefits, but it will take a large amount of money and time to complete.*

Since learners had been taught to evaluate the solutions that they suggest for the problems they include in the essay, this necessitates using adversative conjunctions. Nevertheless, it could be argued that learners seemed to be able to use adversative conjunctions mostly accurately and reasonably. There was no obvious overuse or limited use of this conjunction in the essays.

The least used category of conjunctions was temporal conjunctions (72 times). The conjunction 'first' was used 20 times, followed by 'in conclusion' (19). To put these conjunctions in context, below are some examples from the data of this study:

- *Being addicted to social media, children will not concentrate on studying.*
- *To solve these problems, two measures are raised. First, education is the best way to deal with it.*
- *In conclusion, children widely using social media can harm their physical and mental abilities.*

Table 2 below summarizes the frequencies and percentages of the conjunctions used in the 37 argumentative essays.

Table 2: Instance of conjunctions in the essays

Type of cohesion device	Conjunction	Frequency	Percentage
Additive conjunctions	And	400	50.63%
	And also	7	0.88%
	Also	40	5.06%
	Or	65	8.22%
	Furthermore	4	0.50%
	In other words	1	0.12%
	Moreover	7	0.88%
	in addition	7	0.88%

	not only... but also	9	1.13%
	besides	4	0.50%
Adversative conjunctions	Though	6	0.75%
	Only	20	2.53%
	But	22	2.78%
	However	33	4.17%
	Rather	1	0.12%
Causal conjunctions	So	18	2.27%
	Then	15	1.89%
	Therefore	15	1.89%
	Because	44	5.56%
Temporal conjunctions	Then	15	1.89%
	Next	2	0.25%
	First	20	2.53%
	In conclusion	19	2.40%
	To sum up	16	2.02%
Total of conjunctions		790	100%

Sanders and Noordman (2000) suggest that conjunctions function as ties that show the relationships between the text parts, which ultimately enables the reader to comprehend the text. As indicated in the findings above, there is a high frequency of additive conjunctions, particularly 'and' and 'or'. This may suggest that learners avoid taking the risk of attempting structures they are unfamiliar with, or they lack a lexical range that would enable them to phrase grammatical structures differently. This finding supports other research studies that confirm that many L2 learners overuse additive conjunctions (Meisuo, 2000; Mohamed-Sayidina, 2010). Therefore, a variety of conjunctions should be taught to learners so they can avoid producing redundant or repetitive writing. In addition, learners need to be aware that overuse of conjunctions may not serve the purpose of the essay, which may negatively impact how the text reads.

4.1.3 Ellipsis

Obviously, the learners did not employ ellipsis sufficiently in their writing. Analyzing the scripts shows that ellipsis has been used only two times in two different essays. Both of these instances were nominal ellipsis. Below are the instances of ellipsis as used by the students:

- *Schools also play a role in raising children's awareness of the risks associated with the overuse of social media. This does not mean that parents should play a role in educating their children about the harmful effects of social media. Therefore, it is the responsibility of both.*

In the example above, two nouns are ellipsed after the word 'both', i.e., *schools* and *parents*. Instead of repeating these two nouns, the student opted for using ellipsis, which seems to have contributed to the cohesion of the sentence.

- *While many children nowadays own multiple social media accounts, their parents may not have any.*

In the second example of ellipsis above, the student has left out the nouns 'social media accounts' in the second clause to avoid repetition.

This limited use of ellipsis in the essays for this study seems to confirm the conclusions made by several studies (Palupi, 2018; Rahmawati, 2015; Zoghi & Asadzadian, 2013), which suggest that this cohesive device is usually avoided by many learners as it poses a challenge for them in English. This is because ellipsis relies on learners' grammatical resources in English, which might impede their ability to comprehend the text. When attempting to write, learners may repeat the same words instead of utilizing ellipsis. One possible strategy to address this problem is exposing learners to examples of ellipsis and eliciting what they think is ellipted in the text.

4.1.4 Substitution

The data analysis shows that nominal substitution (by using *one*) featured 7 times across the 37 essays. The following are examples of these instances of nominal substitution:

- *However, a possible limitation with this strategy is that schools might not monitor children's daily behaviours all 24 hours of a day, especially after school. Therefore, this solution would not be the optimal one.*
- *Social networking companies can adopt two possible solutions to protect children users from this problem. The first one is to set up minor supervision.*
- *There are two strategies that could be used to tackle the challenges of these issues. One [strategy] would be for parents to be concerned about their children's health.*

In addition, two learners used clausal substitution (using *so*). This seems to suggest most students in this cohort either neglected using or lacked understanding of this type of substitution. The following are the two examples:

- *Parents should control when and for how long their children access social media websites. In doing so, they prevent their children from becoming addicted to these websites.*

In the example above, the learner used 'so' in the second sentence to substitute the first sentence 'Parents should control when and for how long their children access social media websites.'

- *The government should make sure that there are laws that prevent posting inappropriate content on social media. If the government does so, people will think twice before writing any post on social media.*

In the example above, the learner employed 'so' to substitute the first sentence 'The government should make sure that there are laws that prevent posting inappropriate content on social media.'

Several essays suggest that learners attempted using the reference pronoun 'this' in places where they could have used substitution, which may justify why references have been used most prominently, compared to the few instances of substitution.

The verbal substitution did not feature in any essay. This seems to suggest that learners may lack practice or understanding of this particular cohesive device. Therefore, there appears to be a need for further training and practice in identifying examples of verbal substitution in texts as well as explicitly using this cohesive device in class activities. Explicit focus on this cohesive device is expected to benefit learners and improve their argumentative writing in general. This finding is similar to those by Al-Jarf (2001), where she found that processing substitution in a text was extremely challenging for EFL Arab college learners, followed by reference and ellipsis.

To help address this limited deployment of ellipsis and substitution among EAP learners, teachers could consider using corpora in class to raise learners' awareness of patterns of texts and how grammatical cohesion features in written discourse (Thurston & Candlin, 1998; Yoon, 2008).

5. Conclusion

This article has explored the concept of cohesion in English and how it can be achieved in writing. Different types of cohesive devices have been discussed, and some examples were offered. The article then outlined the types of cohesive devices used in 37 argumentative essays written by international EAP students in New Zealand. This was followed by some suggested practical suggestions to address these problems. The findings of this paper suggest that the learners were able to mostly use references and conjunctions to achieve grammatical cohesion in the essays. In particular, the learners prominently used personal references

and additive conjunctions. At the same time, there appears to be a limited utilization of substitution and ellipsis in the students' writings, which suggests that EAP learners at this level of language proficiency need further input and training, as well as practice in identifying cohesive devices, particularly substitution and ellipsis, in written discourse.

The significance of the findings from the present study lies in the fact that they are expected to provide educators with an insight into the nature of cohesion issues in argumentative essays written by EAP learners at the Upper-Intermediate level in the New Zealand contexts. This is expected to help teachers to better understand what these learners tend to overuse or avoid as far as cohesive devices are concerned. Such understanding is hoped to contribute to a more systematic approach to teaching cohesion in the classroom and selecting the appropriate tasks.

While this article provides some findings that could contribute to a better understanding of the common challenges EAP learners encounter in achieving grammatical cohesion in written discourse, further research could emphasize lexical cohesion in EAP learners' writing. Research that focuses on the errors committed by students in achieving grammatical and lexical cohesion is also expected to contribute to a better understanding of the areas that pose challenges for students in writing cohesive texts, as well as the possible approaches that could be adopted by educators to help learners with cohesion.

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References

- [1] Alarcon, J. B., & Morales, K. N. S. (2011). Grammatical cohesion in students argumentative essays. *International Journal of English and Literature*, 2(5), 114-127.
- [2] Al-Jarf, R. S. (2001). Processing of cohesive ties by EFL Arab college students. *Foreign Language Annals*, 34(2), 141-151.
- [3] Ampa, A. T., & Basri, D. M. (2019, December). Lexical and grammatical cohesion in the students' essay writing as the productive English skills. *Journal of Physics: Conference Series*, 1339(1), 012-072.
- [4] Anthony, L. (2004). AntConc: A learner and classroom friendly, multiplatform corpus analysis toolkit. *IWLLeL 2004: An Interactive Workshop on Language e-Learning*, 7-13. <https://dSPACE.wul.waseda.ac.jp/dSPACE/bitstream/2065/1390/1/01.pdf>
- [5] Bahaziq, A. (2016). Cohesive devices in written discourse: A discourse analysis of a student's essay writing. *English Language Teaching*, 9(7), 112-119.
- [6] Benson, M., Benson, E. & Ilson, R. (1986). *The BBI Combinatory Dictionary of English*. Amsterdam: John Benjamins.
- [7] Bloor, T. & Bloor, M. (2004). *Functional analysis of English*. London: Hodder Education.
- [8] Chan, S. W. K.; Thou, B. K.; and Choy, C. F. (2000). *Textual information segmentation by cohesive ties*. <https://www.aclweb.org/anthology/Y00-1006.pdf>
- [9] Collins, J. L. (1998). *Strategies for struggling writers*. New York, NY: The Guilford Press.
- [10] Council of Europe. (2001). *Common European Framework of Reference for Languages: Learning, teaching, assessment*. Cambridge: Cambridge University Press.
- [11] Crane, P. A. (2000). *Texture in text: A discourse analysis of a news article using Halliday and Hansan's model of cohesion*. <https://core.ac.uk/download/pdf/235011967.pdf>
- [12] Crossley, S., & McNamara, D. (2010). Cohesion, coherence, and expert evaluations of writing proficiency. In S. Ohlsson & R. Catrambone (Eds.), *Proceedings of the 32nd Annual Conference of the Cognitive Science Society* (984-989). Cognitive Science Society.
- [13] DeVillez, R. (2003). *Writing: Step by step*. Dubuque, IO: Kendall Hunt.
- [14] Eggins, S. (2004). *An introduction to systemic functional linguistics* (2nd Ed.). England: Continuum International Publishing Group.
- [15] Eggins, S. & Slade, D. (2004). *Analyzing casual conversation*. London: Equinox Publishing Ltd.
- [16] Fawcett, R. (2000). *A theory of syntax for systemic functional linguistics*. Amsterdam: John Benjamins.
- [17] Genc, B., & Bada, E. (2006). The oral narrative discourse of anaphoric references of Turkish EFL learners. *The Reading Matrix*. 6(2), 135-143.
- [18] Guse, J. (2011). *Communicative Activities for EAP*. Ernst Klett Sprachen.
- [19] Halliday, M. A. K. (2000). *Introduction to functional grammar*. Foreign Language Teaching and Research Press. Beijing.
- [20] Halliday, M. A. K. & Hasan, R. (2003). *Cohesion in English*. London: Longman.
- [21] Halliday, M. A. K. & Hasan, R. (1976). *Cohesion in English*. London: Longman.
- [22] Halliday, M. A. K. (1994). *Introduction to functional grammar*. London, England: Edward Arnold.
- [23] Halliday, M. A. K. & Christian M.I.M. Matthiessen. (2004). *An introduction to functional grammar*. 3rd, revised edition. London, England: Edward Arnold.
- [24] Hessamy, G., & Hamed, S. (2013). A comparison of the use of cohesive devices in EFL Learners' performance on independent vs integrated writing tasks. *Study in English Language Teaching*, 1(1), 121-146. <http://www.scholink.org/ojs/index.php/selt/article/view/29/77>
- [25] Hillier, H. (2004). *Analyzing real texts: Research studies in modern English language*. London: Palgrave Macmillan.
- [26] Hinkel, E. (2001) Matters of cohesion in L2 academic texts, *Applied Language Learning*, 12(2), 111-132.

- [27] Hinkel, E. (2004). Rhetorical features of the text: Cohesion and coherence, in E. Hinkel (Ed.), *Teaching academic ESL writing: Practical techniques in vocabulary and grammar* (291-324). Lawrence Erlbaum Associates, Mahwah, New Jersey.
- [28] Janjua, F. (2012). Cohesion and meanings. Canadian academy of oriental and occidental culture. *Canadian Social Science*, 8(2), 149-155.
- [29] Johnson, P. (1992). Cohesion and coherence in compositions in Malay and English. *RELC Journal*, 23(1), 1-17.
- [30] Junina, A. K. (2019). *Investigating academic literacy challenges on undergraduate programmes: A focus on Arabic-speaking students in New Zealand* (Doctoral dissertation, Auckland University of Technology). <https://openrepository.aut.ac.nz/handle/10292/13035>
- [31] Liu, M., & Braine, G. (2005). Cohesive features in argumentative writing produced by Chinese undergraduates. *The system*, 33(4), 623-636.
- [32] Loxterman, J. A., Beck, I. L., & McKeown, M. G. (1994). The effects of thinking aloud during reading on students' comprehension of more or less coherent text. *Reading Research Quarterly*, 353-367.
- [33] Mawardi. (2014). An analysis of the cohesion and coherence of the students' narrative writings in the English language education department of Nahdlatul Wathan Mataram University. *Ganec Swara*, 8(1), 80-90.
<http://unmasmataram.ac.id/wp/wpcontent/uploads/12.Mawardi.pdf>
- [34] McCarthy, M. (1991). *Discourse analysis for language teachers*. Cambridge: Cambridge University Press.
- [35] McCulley, G. A. (1985). Writing quality, coherence, and cohesion. *Research in the Teaching of English*, 19(3), 269-282.
- [36] Meisuo, Z. (2000). Cohesive features in the expository writing of undergraduates in two Chinese universities. *RELC Journal*, 31(1), 61-95.
- [37] Mohamed-Sayidina, A. (2010). Transfer of L1 cohesive devices and transition words into L2 academic texts: The case of Arab students. *RELC Journal*, 41(3), 253-266.
- [38] Muto, K. (2007). *The use of lexical cohesion in reading & writing*, 107-129 <https://core.ac.uk/download/pdf/235011966.pdf>
- [39] Nilopa, L. M. (2017). Cohesive and coherent devices on the students' essay of English Department of IAIN Palangka Raya. <http://digilib.iain-palangkaraya.ac.id/818/1/Skripsi%20Leti.pdf>
- [40] Nunan, D. (1999). *Second language teaching & learning*. Boston, Heinle & Heinle Publishers.
- [41] Nuttall, C. E. (1982). *Teaching reading skills in a foreign language*. London: Heinemann Educational Books.
- [42] O'reilly, T., & McNamara, D. S. (2007). Reversing the reverse cohesion effect: Good texts can be better for strategic, high-knowledge readers. *Discourse Processes*, 43(2), 121-152.
- [43] Paltridge, B. (2006). *Discourse analysis: An introduction*. London, England: Continuum.
- [44] Palupi, E. G. (2018). *A study on the mastery of ellipsis by the third-year students of the English study program of FKIP-UIR* (Doctoral dissertation, Universitas Islam Riau). <https://repository.uir.ac.id/4248/4/bab2.pdf>
- [45] Rahmawati, D. (2015). *Grammatical cohesive devices found in argumentative essays written by the fourth-semester students of the English Education Department at Iain Tulungagung*. <http://repo.uinsatu.ac.id/1851/>
- [46] Robinson, N. (2018). Australia hosting unprecedented numbers of international students. *ABC Net*. <https://tinyurl.com/Robinson2018AUS>
- [47] Rudiana, R. (2021). The realization of grammatical cohesion devices in EFL students argumentative essays. *JALL (Journal of Applied Linguistics and Literacy)*, 5(1), 101-108.
- [48] Sanders, T. J., & Noordman, L. G. (2000). The role of coherence relations and their linguistic markers in text processing. *Discourse Processes*, 29(1), 37-60.
- [49] Thompson, Geoff. (2004). *Introducing functional grammar. 2nd ed*. London: Hodder Education.
- [50] Thurston, J., & Candlin, C. N. (1998). Concordance and the teaching of the vocabulary of academic English. *English for Specific Purposes*, 17(3), 267-280.
- [51] Wang, H., & Sui, D. (2006). Measuring coherence in Chinese EFL majors' writing through LSA (Latent Semantic Analysis). *Asian EFL Journal*, 11(6), 1-24.
- [52] Yoon, H. (2008). More than a linguistic reference: The influence of corpus technology on L2 academic writing. *Language Learning & Technology*, 12(2), 31-48.
- [53] Zoghi, M., & Asadzadian, F. (2013). A comparative analysis of grammatical cohesive ties in low and high intermediate EFL students' compositions. *The Iranian EFL Journal*, 2(5), 328-342.