

A Contrastive Study of Cohesive Devices Used in Pre-university and Headway Textbooks

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Abstract

This study compares and contrasts the frequency of the use of cohesive devices in Iranian pre-university EFL textbook and in the headway as an EFL institute textbook for this purpose. The reading sections of Iranian pre-university EFL and headway textbooks were analyzed in terms of the distribution of grammatical and lexical devices. The results of one-way ANOVA illustrated that there were significant differences among the frequencies of grammatical cohesive sub- devices across Iranian pre-university and headway textbooks. Moreover, the result of chi-square test indicated that there were significant differences among the frequencies among the frequencies of lexical cohesion sub-devices across Iranian pre-university EFL and headway textbooks. Moreover, the result of lexical cohesion sub-devices across Iranian pre-university EFL and headway textbooks. These findings can be beneficial for textbook writers, material developers and EFL teachers.

Keywords: lexical cohesion, grammatical cohesion, pre- university, head way

INTRODUCTION

Learning English, as the medium of communication in today's globalized world, is taught as a foreign language (EFL). Dudly- Evans and St. John (2005) believed that in some countries like Iran, all tertiary education is taught in the L_1 with English being an auxiliary language. In this education system, English is taught to the students from elementary school up to university level.

The English syllabus in the formal educational system of Iran is text-based. Feez and Joyce (2002) mentioned, that a text- based syllabus is concerned with units of discourse called text. Text refers to any stretch of language held together cohesively by through meaning.

Reading is discoursally viewed as an interactive process of communication between readers and writers through the text. A text has textual features which collectively constitute its texture and distinguish it from non-text. "Cohesion" of which lexical devices are sub-type helps bring about a semantic continuity and is to deal with in reading process.

According to Morris and Flirts (1991) cohesion is the textual quality responsible for making the sentences of a text seem to hang together. In different language various cohesive devices are employed to gain textuality. Some languages may show tendency toward using some special kinds of them. Cohesive analysis, therefore, can shed light on these options.

Morris and Hirst (2003) put the view that lexical cohesion occurs when related words pairs join together to form larger groups of related words that can extend freely over sentence boundaries. These assist in providing the continuity of lexical meaning in a text.

Halliday and Hasan outline a taxonomy of types of cohesive relationships which can be formally established within a text and bind a text together. They studied cohesion in English and discovered two categories of cohesive devices: grammatical cohesive devices covering reference, ellipsis, substitution, conjunction and lexical cohesive devices including reiteration and collocation.

In spite of the existence of some studied dealing with cohesion in textbooks, there are a few studies focusing on the use of cohesive in pre-university and institute EFL textbooks. Therefore, the present study seeks to investigate cohesive devices utilized in Iranian preuniversity EFL textbooks and in institute EFL textbooks and it attempts to find answer to the following research questions:

- **RQ**₁: Are there any significant differences among the frequencies of the use of grammatical cohesive sub- devices across each Iranian EFL pre-university and headway textbooks?
- **RQ**₂: Are there any significant differences among the frequencies of the subdevices across each Iranian EFL pre-university and headway textbooks?

Considering the aforementioned research questions, the following null hypotheses have been formulated:

- **H1.** There are no significant differences among the frequencies of the sub-devices of grammatical cohesive devices across each Iranian EFL pre-university and headway textbooks.
- **H2.** There are no significant differences among the frequencies of the sub- devices of lexical cohesive across each Iranian EFL pre-university and headway textbooks.

REVIEW OF LITERATURE

Cohesion is part of the forming component in the linguistic system. It is the means where by elements that are structurally unrelated to one another are connected to each other. The resources that constitute the cohesive potential of a language are part of the total meaning potential of language, and they have a kind of catalytic function since, without cohesion, the rest of the semantic system cannot be effectively activated in any sense (Halliday and Hasan 1976). The taxonomy of Halliday and Hasan (1976), identifies, two main grammatical and lexical cohesive devices which can be formally situated within a text. Grammatical cohesion has been regarded as the surface making the semantic links between clauses and sentences in a writer discourse, and sentences in a written discourse, and between utterances and tunes in speech. These links can be of four types: reference, substation, ellipsis and conjunction lexical cohesion refer to relationship between and among words in a text, and it is primarily related to sequence. The sequence of a text can be discovered through examining the content words, sequences mostly have specialized vocabularies and tend to engage in specialized activities. The lexical cohesion includes reiteration and collocation.

Reiteration comprises repetition, synonymy and near synonym, superordinate, and general word (Haliday and Hasan, 1976). The literature on the use of cohesive devices, either grammatical or lexical, is so rich. In what follow a few research studies which have focused on cohesion will be reviewed. Kavoosi-Nejad (1993) explored, ellipsis in noun phrases, verb phrases and sentence, and indicated the differences between ellipsis and substitution. Based on Halliday and Hasan (1976), Fazl-Ali (1995) explored ellipsis in Persian stories of Al-e-Ahmad and Daneshvar, and revealed that verbal ellipsis is less frequent.

Shoghosho'ara (1996), examined, conjunctions as a cohesive device in Persian stories at children and adults level to see whether there are differences in the application of conjunction in such texts. She concluded that writers at both levels use all four kinds of conjunctions. In addition, statistics showed that in both group the frequency of additive conjunctions were higher than other conjunctions. The frequency of causative in adult's stories was twice as much as children's. The use of adversatives was almost the same in the corpus. Furthermore, temporal ones in children's stories were 2.5 times more than their adult's counterparts. Therefore, he concluded that when writing a story, writers should pay attention to who are their audiences.

Mozaffar-Zadeh (1998), analyzed ellipsis and substitution in science books at guidance level and concluded that Halliday and Hasan's classification (1976) on ellipsis and substitution can be extended to Persian. Tseng and Liou (2006) inquired about the effects of on line conjunction materials on college EFL students writing. They argued that inappropriate utilization of conjunction in English, which leads to incoherent writing, is because of first language interface, misleading lists of connectors, and improper exercises. They also informed that pedagogical instructions for teaching online conjunction materials would assist EFL learners to have more writing that are coherent.

Roberts (2009) following Dooley and levinsohin's (2001) analytical methodology described different aspects of discourse analysis including an introductory description of cohesion and coherence in 16 Iranian stories. They have also shown the style of working on discourse studies in Persian language. They have stated that their study is just an introductory work which guide people in knowing how discourse studies in Persian can

be managed based on Dooly and levinsohin (2001). In analyzing cohesive ties in English as a foreign language student's writing. Rostami and Abu-saeedi (2010) investigated about the most frequently used cohesive device in his sample. He came to surprising, conclusion. Poor student were expected to have low density of cohesion because they could not combine sentences together coherently, e.g. by the use of conjunctions.

So, he realized that, in his study, conjunctions are not a discriminating factor between good and poor students. Also, it was observed that the frequency of additives were higher in both groups, followed by temporal. In addition adversatives and a usual had almost the same frequency of occurrence.

Seddigh, Shokr-pour and Kafi-pour (2010) analyzed, lexical cohesion in English and Persian abstracts based on Seddigh and Yarmohamadi's (1996) lexical cohesion framework. They use the SPSS package for contrastive analysis. The results indicated that there were some similarities and differences in the application of lexical cohesion in their corpus. All sub-type had nearly the same occurrences in the two sets of data and the twotailed t-test revealed that the differences between their applications in English and Persian abstracts are not statistically significant. Both languages reported repetition as the most frequent sub-type, but synonymy and meronym were the least used-categories.

More recently, Yang and Sun (2012) explored, the use of cohesive devices in argumentative writing by Chinese sophomore and senior EFL learners. The results of ellipsis and substitution analysis revealed that the two devices were mostly found in spoken language and were seldom used in formal written discourse. About 56.67% of the sophomores and 70% of the seniors had not used these devices; because they had become aware of the inappropriateness of using ellipsis and substitution in formal writing.

METHODOLOGY

Participants

The research participants consisted of the Iranian pre-university EFL textbook and headway as EFL institute textbook. In addition, the research sample consisted of reading sections of the mentioned textbooks which were selected purposefully.

Materials

Materials of this study were selected through the following procedures first, the reading section of the two aforementioned textbooks were selected, and the number of words in each reading part was counted. The two textbooks were not homogeneous in terms of the number of words in their reading sections: in fact, headway textbook contained 6198 words which is much more than the pre-university textbooks. In order to make the number of words homogeneous, the reading parts of the headway textbook were randomly selected from among the eight lessons, with all reading sections in the pre-university textbook. Therefore, the materials utilized in the present study were as follow: pre-university EFL textbook included of eight lessons, each with one reading section

comprising 1926 words. And four lessons from headway textbook, each with one reading section made up 1980 words.

The research instrument was a researcher made checklist (Table 1) developed based on Halliday and Hasan's (1976) categories of grammatical and lexical cohesive devices.

	Reference	Personal
		Demonstrative
		Comparative
	Substitution	Nominal
Grammatical		Verbal
Cohesion		Clausal
	Ellipsis	Nominal
		Verbal
		Clausal
	Conjunction	Adversative
		Additive
		Temporal
		Clausal
Lexical	Reiteration	Repetition
Cohesion		Synonymy
		Superordinate
		General word
	Collocation	

Table1. Categories of grammatical and lexical cohesive devices and their sub devices.

Data collection procedure

The researcher collected the data through extracting the grammatical cohesive devices including references, substitutions, ellipsis, conjunctions and their subsets and the, i.e. three types of reference: personal, demonstrative, and comparative reference. Substitution has three main subsets: nominal, verbal and clausal. Ellipsis has three main subsets, too. They are nominal, verbal and clausal ellipsis. Conjunction also has four subsets: adversative, additive, temporal, causal, and continuative. Also lexical cohesive devices contain reiteration and its subsets.i.e repetition, synonym and near synonym, superordinate and general word. Collocation is another type of lexical cohesion. Each sentence of the reading sections was divided into clauses and each subset of grammatical and lexical cohesive devices was examined in the whole selected texts.

Data Analysis

Having determined the frequencies of grammatical and lexical cohesive devices, the research questions were answered using the descriptive statistics such as frequencies and percentages, as well as, inferential statistics including one-way ANOV and chi-square test. One-way ANOV was used to determine whether there are any significant differences among the frequencies of the sub devices of grammatical cohesive devices across each of Iranian EFL pre-university textbook and headway textbook. In addition, Ch-Square was used to investigate whether there are any significant differences among the frequencies of the sub devices of grammatical cohesive devices across each of Iranian EFL pre-university textbook and headway textbook. In addition, Ch-Square was

of the sub- devices of lexical cohesive across each of Iranian EFL pre-university textbook and headway as EFL institute textbook.

RESULTS

The frequency of the use of the grammatical cohesive devices including reference, substitution ellipsis, conjunction and lexical cohesive devices including reiteration and collocation counted in the Iranian EFL pre-university and headway textbooks.

			Pre-university textbook	Headway textbook
Grammatical	Reference	Personal	119	127
Cohesion		demonstrative	80	90
		comparative	15	45
	Substitution	Nominal	9	3
		Verbal	8	0
		Clausal	2	2
	Ellipsis	Nominal	2	2
		Verbal	17	30
		Clausal	3	10
	Conjunction	Adversative	14	9
		Additive	50	88
		Temporal	25	24
		Clausal	12	9
		Continuative	1	1
Lexical	Reiteration	Repetition	95	198
Cohesion		Synonym and near synonym	70	60
		Superordinate	30	51
		General word	50	51
	Collocation		135	108

Table 2. The frequency of the use of cohesive devices across the four Iranian EFL pre-
university and headway textbooks.

In order to make the number of words in the reading sections of the Iranian EFL preuniversity and headway textbooks more homogenous, the frequencies of the use of the sub devices of grammatical and lexical cohesive devices across each of the pre-university and headway textbooks were calculated in percentages.

			Pre-university textbook	Headway textbook
Grammatical	Reference	Personal	0.15	0.120
Cohesion		Demonstrative	0.25	0.28
		Comparative	1.30	1.40
	Substitution	Nominal	2.03	9.87
		Verbal	0.00	18.25
		Clausal	9.10	9.87
	Ellipsis	Nominal	1.10	1.40
		Verbal	2.71	3.70
		Clausal	6.50	9.10
	Conjunction	Adversative	1.50	2.12
		Additive	0.22	0.40
		Temporal	0.70	0.90
		Clausal	1.80	2.50
		Continuative	0.00	0.000
Lexical	Reiteration	Repetition	0.11	0.18
Cohesion		Synonym and near synonym	0.39	0.29
		Superordinate	0.37	0.40
		General word	0.29	0.50
	Collocation		0.14	0.19

Table 3. The percentage of the use of cohesive devices across the Iranian EFL pre-
university and headway textbooks.

Table 4. The result of the use of grammatical cohesive across Iranian EFL pre-university
textbook.

	Ν	Mean	std. Deviation	std. Error
Reference	4	0.16032	0.6821	0.38950
Substitution	4	11.1256	10.65570	4.42007
Ellipsis	4	3.5500	3.04046	3.33660
Conjunction	6	0.9241	0.863567	0.34706
Total	18	4.6328	6.28472	2.3729

Table 5. ANOVA results for grammatical cohesive sub- devices across Iranian EFL pre-
university textbook.

	Sum of squares	DF	Mean square	F	Sig
Between Groups	184.720	3	63.942	3.237	0.35
Within Groups	143.267	9	15.326		
Total	338.095	10			

Table 5 illustrates that there are statistically significant among the four grammatical cohesive sub devices across Iranian EFL pre-university (F(3.10)=4.23, p=0.36)). As indicated in the table-p-value is less than alpha level (p<0.05). In order to determine which specific groups differ, Tukey HSD test was used.

(1) type of grammatical B	(J) type of grammatical B	Mean difference (L-J)	St. Error	Sig
	Substitution	-7.42222	2.18552	0.45
Reference	Ellipsis	-3.04536	2.18552	0.601
	Conjunction	-3.0056	2.75805	1.000
	Reference	8.53322	2.18552	0.56
Substitution	Ellipsis	4.37556	2.18552	0.366
Substitution	Conjunction	8.21257	1.75805	0.338
	Reference	3.05556	2.18652	0.601
Ellingia	Substitution	-4.36007	2.18652	0.366
Ellipsis	Conjunction	2.65400	2.75805	0.565
	Reference	-8.22356	2.75805	1.000
Conjunction	Substitution	-2.65400	2.84704	0.38
Conjunction	Ellipsis		2.74905	0.154

Table 6. multiple comparison of Tukey HSD test between grammatical cohesive subdevices across Iranian EFL pre-university textbook

Table 6. Indicates that the difference between substitution and conjunction (p=0.038), and conjunction and substitution (p=0.038), are statistically significant (p<0.05).

Table 7. The results of the use of grammatical cohesive sub- devices across headway
textbook.

	Ν	Mean	std. Deviation	std. Error
Reference	6	0.2704	0.19298	0.20558
Substitution	6	7.5677	6.68692	3.38444
Ellipsis	5	4.4444	3.99955	2.74174
Conjunction	7	2.2370	2.22629	0.50370
Total	24	3.6939	4.54937	0.95968

	Sum of square	DF	Mean square	F	Sig
Between Groups	86.941	4	35.428	3.93	0.99
Within Groups	98.913	11	9.891		
Total	174.866	14			

Table 8 illustrates that there are not statistically significant differences between grammatical cohesive sub devices across headway textbook (F (3, 10) = 3.99, p=0.99). Since the p-value is higher than our assumed alpha level (p>0.05).

The chi-square test was used to determine whether there are any significant differences among the frequencies of the sub- devices of lexical cohesive devices. Table 9 shows the results of chi-square test in the frequencies of the use of lexical cohesive sub- devices across Iranian pre-university EFL textbook.

				Lexical			
R	epetition	l	Synonym and near synonym	Super ordinate	General word	d Coll	ocation
	0.12	1	0	0	0		1
	0.17	0	0	0	0		0
fpl3	0.27	0	0	0	1		0
	0.35	0	1	1	0		0
	0.66	0	0	0	0		0
	Total	1	1	1	1		1
					Value	DF	Sig
Pe	Pearson chi-square		re		21.000	15	0.330
I	Likehood Ratio				0.084	15	0.556
Linear-by-linear		r Assoc	iation	0.001	1	0.987	
	N of Va	alid			6		

Table 9. Chi-square results for lexical cohesive sub- devices across Iranian pre-universityEFL textbook.

As shown in the table, there are not any significant differences among the 5 lexical cohesive devices in Iranian pre-university EFL, textbook (n^2 (16, N=5) =20, p=22).

				Lexical		
R	Repetition		Synonym and near synonym	Super ordinate	General word	Collocation
	0.12	1	0	1	0	0
	0.19	0	0	0	0	1
fpl4	0.40	0	1	0	1	0
	1.82	1	0	1	0	0
	Total	2	1	2	1	1
				Value	DF Asymp	o. Sig(2-sided)
Pea	arson chi	-squa	re	16.000 ª	14	0.342
Ι	Likehood	Ratio		14.4223	14 0.356	
L	inear-by-	linea	Association	0.006	2 0.944	
N	N of Valid Cases		7			

Table 10. Chi-square results for lexical cohesive sub -devices across headway textbook.

As illustrated in the table, there are significant differences among the 5 lexical cohesive in headway textbook ($x^2(12, N=7) = 15, p=0.241$).

The results of this study showed that, there are significant differences among the four grammatical cohesive sub- devices across Iranian pre-university EFL and headway as an EFL institute textbooks. Substitution is the most, and reference is the least frequent grammatical cohesive sub- device across Iranian pre-university EFL textbook, but in headway textbook conjunction and reference are the most frequent.

The finding of current study indicated that, there are significant differences among lexical cohesive across Iranian pre-university EFL and headway textbooks. In Iranian pre-university EFL textbook, repetition and synonyms are the most frequent but in headway textbook, repetition and collocation are the most frequent.

DISCUSSION AND CONCLUSION

This research is in line with Pourtaher and Eissaei (2013). Their data is different from ours; their data are selected from among reading section of intermediate level. The other study is by Shabani, Danaye and Berehlia (2015) their data consist of Iranian high school EFL textbooks. What is important to note is that the result they obtained from their studies, are different to ours.

In addition, Faghihsabet, Khodabandehlou and Jahandar (2013) demonstrated that instruction on cohesive devices can improve EFL learners reading comprehension. This finding is also emphasized by Purdana, Naziri and Rajesk (2014) who suggested that textbooks containing frequent cohesive can have a significant role in improving EFL learner's reading comprehension ability at different proficiency levels.

As the main focus of Iranian pre-university EFL textbook is developing reading comprehension skills, with respect to these finding it can be concluded that grammatical and lexical cohesive sub- devices have not been classified into a systematic order in the Iranian pre-university textbook, and thus these textbook are in need of substantial revision.

The present study aimed at investigating a thing the frequency of the use of grammatical and lexical cohesive sub- devices across each of the Iranian pre-university EFL and headway textbook. To this end, the reading sections of each of the Iranian pre-university and headway textbooks were analyzed in terms of different grammatical and lexical cohesive sub- devices. The finding revealed that in Iranian pre-university EFL textbook, substitution is the most frequent and reference is the least frequent grammatical cohesive sub- devices in Iranian pre-university EFL textbook. But in headway, conjunction and references are the most and substitution and ellipses are the least frequent grammatical cohesive sub- devices. According, with regard to the results of one-way ANOVA (p<0.05) across Iranian pre-university EFL and headway textbook, the first null hypothesis of the study is partially rejected in that there are no significant difference among the frequencies of the grammatical cohesive devices across both Iranian pre-university and headway EFL textbooks. Moreover, the result of peason chi-square demonstrated that the significant values of all the 5 lexical cohesive sub- devices are lower than 0.05 across of Iranian pre-university EFL and headway textbooks.

Thus, the second null hypothesis of the study is confirmed in that there are significant differences among the frequencies of the use of lexical cohesive across Iranian preuniversity and headway EFL textbooks. So, the finding revealed that in Iranian preuniversity EFL textbook, repetition and synonym are the most frequent and in headway repetition and collocation are the most frequent.

The results of the present study can be beneficial for textbook authors and materials developers. Since, textbooks as significant instruments play a crucial role in Iranian student's education, knowing the weakness of these books can be beneficial for improvement of the four Iranian EFL high school textbooks. Furthermore, the findings of

this study can be fruitful for language teachers. The EFL instructors should notice the grammatical and lexical cohesive devices in the four Iranian EFL high school textbooks more carefully. Teachers have to pay attention to the proper distribution of cohesive devices in these textbooks and they can provide EFL students with more exercise of such devices.

In this study the researcher used the reading section of Iranian pre-university EFL textbook. For further studies this coverage can still be expanded to include more reading sections of English language textbooks taught in the institutes as well the books used for Iranian intermediate EFL learners. According, as this study was conducted on the grammatical and lexical cohesive across Iranian pre-university EFL textbook and headway as and EFL institute textbook. Further research can be carried out in other English textbooks such as Top-Notch series, new interchange series, new parade series, American English file series, connect series, project series, and Iranian high school textbooks, and so on.

REFERENCE

- Dooly, E. & Levinson, B. (2004) *.Discourse studies in Persian language*. London: University of London press.
- Behnam, B (1996). A Stylistic study of cohesive features in English fiction with some pedagogical implication for non-native contexts. Shefiled: Shefiled University press.
- Dudley-Evans, T., and John, S. M. (2005).*Developments in English for specific*.Cambridge: Cambridge University Press.
- Fazl, A. (1995) .Ellipsis in Persian stories of AL-e-Ahmad. *Iranian Applied Linguistic Journal*, *22*, 1-12.
- Faghih Sabet, A., & Khodabandehlou, M., & Jahandar, S. (2013). The impact of instructing discourse markers on Iranian EFL learner's reading comprehension ability. *Indian Journal of Fundamental and Applied Life Sciences*, *3*, 273-280.
- Feez, S., & Jouce, H. (2002). *Text based syllabuses design*. Sydney: Macquire University.
- Halliday, M.A.K & Hasan, R. (1976). *Cohesion in English*, London: Longman.
- Halliday, M, A, K., & Hasan, R. (1985). *Language, context, and text*. Oxford: Oxford University Press.
- Halliday, M. A, K, (1985). *An introduction of functional grammar*, Oxford: Oxford University press.
- Halliday, M. A, K & R. Hasan (1976). *Language context and text. Aspect of language in a Social- semiotic perspective.*. Oxford: Oxford University Press.
- Hoey, M.(1991). Patterns of lexis in text. Oxford: Oxford University Press.
- Lotfipour-saed, K. (1991). *Analyzing literary discourse: implication for literary translation*. Paper presented at Tabriz university conference on translation, Tabriz.
- Kavoosi-Nejad,z. (1993). Ellipsis in noun phrases, verb phrases and sentence. *Iranian Applied Linguistic*, *2*, 1-12.

- Morris, J. & Hirst, G. (1991) .Lexical cohesion computed by thesaural relations as an Indicator of the structure of Tex. *Computational Linguistics*, *17*, 11-25.
- Mozaffar-Zadeh,L. (2011). A contrastive study of lexical cohesion in English and Persian research articles. *English Language Teaching*, *4*, 4-16.
- Nunan, D. (1993). Introducing discourse analysis. England: Penguin Group.
- Noor-Mohammadi, E. (1993). *A contrastive study on the application of cohesion devices in English and Persian*. Unpublished MA thesis, Shiraz University.
- Pourdana, N., Naziri, M., & Rajeski, j. S. (2014) .Cohesive devices frequency in English textbooks: *Internatinal Journal of Applied Linguistic and Literature*, *3*, 154-162.
- Rostami, A,. & Abousaeedi, A.. (2020). Use of cohesive ties in English as a foreign language students' writing. *Iranian of Applied Language Studies*, *2*, 137-156.
- Robert, A. (2004). *Different aspect of discourse analysis including an introductory description of discourse studies in Persian*. London: London University Press.
- Sahragard. R. (1991). *Lexical cohesion in English and Persian*. Paper presented at Tabriz-Baku 1st Conference on Language Teaching Issue, Tabriz.
- Seddigh. F., Shorpour, N., & Kafipour, R. (2010). *Lexical cohesion in English and Persian abstract:* A contrastive approach unpublished MA thesis. Shiraz University.
- Yarmohammadi, L. (1995). *Fifteen articles in contrastive linguistic and structure of Persian: grammar, text and discourse.* Tehran: Rahnama publishers.
- Yang, L. & Sun, M. (2012). The use of cohesive devices in argumentative writing. *TESOL Journal*, *23*(1), 31-48.