

## **A Contrastive Study of Lexical Cohesion Used In Sport Texts of Washington Times and Tehran Times Newspapers Written by English Native and Iranian Non-native Writers**

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### **Abstract**

Establishing a unified text which possesses distinct types of lexical cohesion is one of the challenging aspects of using a foreign language. This issue even becomes critical when producing the language in written form is of concern. The present study intends to contrast the frequency of the use of lexical ties in Times and Tehran Times newspapers written by native and non-native writers. To do so, two sets of corpora were selected each consisting 40 newspapers: 20 written by native authors and 20 written by non-native authors. After collecting the data from the two sets of corpora, and density of lexical types, the frequency of lexical ties were estimated. Later on, to compare the use of lexical ties in the two sets of corpora, two-tailed-test was used. The results indicated that there was a statistically significant difference in the use of lexical ties in sport text of newspapers. Moreover, results revealed that in Times newspaper the density of lexical ties is more than Tehran Times newspaper. The research findings have several implications for language instructors, university students and Iranian authors.

**Keyword:** Lexical ties, Sport texts, Times, Tehran Times

### **INTRODUCTION**

The concept of cohesion cannot be separated from the concept of text. A text which is spoken or written derives from a unified whole. What differs text and non-text lies on the texture, and this texture is constructed by the cohesive relations between its linguistic features. Further, Beaugrand and Dressler (1981) define a text as a communicative occurrence, which meets standards of textuality: 'cohesion' referring to the textual world, i.e. the configuration of concepts and relations which underline the surface text...'intentionality' referring to the text writer's attitude. 'Acceptability' referring to the text reader's attitude to the text. 'Informatively' referring to the extent

to which the message of the text is unexpected. Unknown...'situationally' referring to the factors that make the utilization of one text dependent upon knowledge of previously uncounted texts. Cohesion is in the level of semantic, which refers to relations of meaning that exist within the text, and that define it as a text (Halliday and Hassan 1976). Cohesion occurs when the interpretation of some element in the discourse is dependent on that another.

One of the most challenging aspect of literacy education is to familiarize with the act of writing. Actually, writing is a laborious activity since learners need to convey their mental meaning and ideas into language. A related definition has been proposed by Schunk (2004) in which writing was defined as translating ideas into linguistic symbols in print. It is assumed that when learners are entangled in the writing process they need to have access to their underlying knowledge. The knowledge that learners employ while writing is four types, i.e., topical, audiences, genres and language (Byrnes, 1996 cited in Schunk, 2004).

Writer's understanding of all these knowledge types is necessary since a lack understanding may make the task of writing even more frustrating and complicated. In other words, writers become perplexed when they need to bind these underlying pieces of knowledge and change them into linguistic symbols. Irvin (2010) identifies some misconceptions that writers may face will try to produce written texts. The first misconception is that writers may incorrectly wait for a completely ordered and step-by-step framework for writing.

In contrast Irvin (2010) assumes a recursive and non-linear format of writing process. The second problem is that most writers try to write only when they have everything in their mind. Irvin (2010) discards this characteristic of writers and believes that writing should be initiated even with deficiencies in generating a complete text. The third misconception relates to writers idea that they should write well from the very early drafts. The next is that writers are usually disappointed when they are faced with their limited capacity for writing. Another major misconception proposed by Irvin (2010) is that of writer's misbelief about the fact that good grammar is good writing.

Thus, the task of writing is not an easy process; rather writers need to attend fully to the task of writing to produce valuable text. There are a number of key elements in writing which can enhance writer's ability to manage their writing. Attending to major constituents of written text is essential in every writing genre. According to Raimes (1983) content, organization, originality, style, fluency, accuracy and using appropriate rhetorical forms of discourse are some of the basic elements of writing which need careful attention.

All writing follows specific conventions, cookbooks, letters, novels, lists and dictionaries all depend on a specific kind of language and presentation to be comprehensible and easy to use learning a second language need to be able to write in specific ways presumably, purpose for writing are different and it is this feature which highlights the specificity of the writing method. In other words, as it is mentioned by Reppen (1995)

learners need to be able to write in different ways for different purposes. As mentioned by Hyland (2008) genre, which is one type of knowledge required for writing, represents how writers typically use language to respond to recurring situations.

Discourse which has attracted the attention of researchers in the realm of communication dates back to the 1960s when researchers became interested in extracting new disciplines from linguistics, semiotics, psychology, anthropology and sociology. According to Johnstone (2008) the study of discourse is called discourse analysis and is concerned with the study of the relationship between language and the content in which it is used. Also, McCarthy (1991) believes that those who are involved in the analysis of discourse study language in use.

By language in use, McCarthy (1991) refers to written texts of all kinds and spoken data from conversation to highly institutionalized forms of talk. A discourse does not consist of words which are placed together in a random and haphazard fashion. The meaning of discourse is not conveyed by such randomness. Instead, writers need a number of linguistic markers to establish relationships among the words and sentences within the texts. Halliday and Hasan (1985) point out that such semantic relations manifest the texture of the text and provide the situation for establishing a coherent text.

An important contribution to coherence comes from cohesion which refers to a set of linguistic resources that every language has as part of the textual meta function for linking one part of the text to another (Halliday and Hasan, 1985). Further, Halliday and Hasan (1985) claim that the term cohesive ties imply a relation. In other words, you cannot have a tie without two members cannot appear in a tie unless there is a relation between them. Also Nunan (1993) considers cohesive ties as text-forming devices which enable the writer or speaker to establish relationships across sentence or utterance boundaries and which help to tie the sentences in a text together. Besides Eggins (1994) defines cohesion as a term which refers to the way we relate or tie together bits of our discourse. There are five categories of cohesive ties proposed by Halliday and Hasan (1976). The five categories are reference, substitution, ellipsis, conjunction and lexical cohesion.

It needs to be mentioned that Halliday and Hassan's (1976) categorization of cohesive ties which is an umbrella term for lexical ties has been collapsed and later on in 1985 they introduced repetition, synonym, antonym, hyponymy and meronymy as the elements of lexical ties. This was not an end in the study and categorization of lexical ties because Halliday (1985, cited in Martin 1992) considered repetition and collection as distinct categories, and grouped together synonymy, antonym, meronymy and hyponymy under a general heading of synonymy.

In the present study, the researchers considered lexical cohesion ties under two general headings: reiteration and collocation. Reiteration contains repetition, synonym, superordinate, and general word. The second type of lexical cohesion is the collocation and is defined by Richards and Schmidt (1992) as the way in which words are used

together regularly. Lexical cohesions are necessary elements for any discourse and they are tools for producing coherent texts.

The concept of lexical cohesion and its use by second language learners have been faced by many researchers and have been studied in recent years (Halliday and Hassan, 1976, Halliday and Hassan, 1985).

## **RESEARCH QUESTIONS AND HYPOTHESIS**

However, English writing tasks which are written by native versus non-native authors need to be studied in more detail. For this purpose, the following research questions and hypothesis were posed:

- What sub-types of lexical cohesive are frequently used in sport texts of Times and Tehran Times newspapers?
- Is there any significant difference between Times and Tehran Times newspapers regarding to density of lexical cohesion sub-types use?

The above mentioned research questions are the basis for the following hypotheses:

- Sub-types of lexical cohesion are frequently used in sport text of Times and Tehran Times newspapers.
- There is significant difference between Times and Tehran Times newspapers regarding to density of lexical cohesion sub-types use.

## **REVIEW OF THE RELATED LITERATURE**

In the early seventies, when text analysis was still in its early stages, a number of important works were published dealing with the term cohesion. The most widely known study was that of Halliday and Hassan (1976) in which the devices available in English for linking sentences to each other were classified into references, ellipsis, substitution conjunction and lexical cohesion. In the following sections, theoretical and practical aspect of the use lexical cohesion will be partially discussed.

According to Halliday and Hassan (1976) the type, number and degree utilization of cohesive devices used in the text contribute to the cohesiveness of a text. In spoken and written English discourse, accordingly, individual clauses and utterances are linked semantically by grammatical connection which make a text cohesive (McCathy, 1991). Hoey (1991) indicated, cohesion is a property of a text whereby certain grammatical or lexical feature of the sentences of the text connect them to other sentences in the text.

Cohesion is a semantic concept and it refers to relation of meaning that exist within the text and that define it as a text. So cohesion helps to create text by providing texture, according to Halliday and Hassan (1976), the primary factor of whether a set of sentences do or do not constitute a text depends on cohesive relationships between and within the sentences which create texture. A text has texture and this is what distinguishes it from something that is not a text.

The texture is provided by the cohesive relation cohesive relationships within a text are set up "where the interpretation of some elements in the discourse is dependent on that of another. The one presupposes the other in the sense that it cannot be effectively decoded except by recourse to it (Halliday, 1976). Consequently a relation of cohesion is set up and presupposed and presupposing elements are integrated into a text. The presupposition and the fact that it is resolved provide cohesion between sentences and the create text.

Malmkjar (2004) is of the opinion that cohesion concern the way in which the linguistic items of which a text is composed are meaningfully connected to each other in a sequence on the basis of the grammatical rules of the language and formal devices signal the relationship between sentences. Cohesion is a necessary through not a sufficient condition for the creation of the text. The textual or text-forming the opinion that cohesion is one of the textual feature which makes the texture of a text and helps to its materialization cohesion connects certain grammatical or lexical features of the sentences to the text of the other sentences in the text.

Campbell (1994) argues that there are two major principles of cohesive elements by which the continuity aspect of coherence can be explained, 1. The cohesive principle of similarity. 2. The cohesive principle of proximity. The discourse producers influence recipient's sense of discourse continuity by manipulating the similarity and proximity of the full range of discourse elements. The cohesive principle of similarity acknowledges the cohesive effects of similar discourse elements, while the cohesive principle of proximity acknowledges the effect of the spatial and temporal proximity of discourse element. This latter principle acknowledges cohesive effect of deictic discourse elements.

Bex (1996) considers cohesion as residing in the semantic and grammatical properties of language. Cohesion guides the ways in which units of text are to be understood in relation to each other. Cohesion concerns the way in which texts can refer to themselves and is typically achieved through the use of grammatical devices and lexical repetition.

Halliday and Hassan (1976) argue that cohesion is expressed partly through the grammar and partly through the vocabulary, hence grammatical cohesion and lexical cohesion. It is necessary to consider that cohesion is a semantic relation but, like all the components of semantic system. It is realized through the lexicogrammatical system. The lexicogrammatical system includes both grammar and vocabulary of the cohesive type's reference, substitution, and ellipsis are grammatical; lexical cohesion is lexical and finally conjunction is on the borderline of the two, mainly grammatical, but with a lexical component in it (Halliday and Hassan, 1976). The text is not the same as structural relation of the parts of sentences. In other words, cohesion is the non-structural resources for establishing relation within the text to construct discourse. These relations may involve elements of any extent from single words to a lengthy passage of text. Cohesive ties between sentences are the only source of texture while within the sentences there are structural relations. It is this intersentential cohesion

that is important for the text. Within sentence relation since they hang together already, cohesion is not needed to make them hang together.

Cohesion expresses the continuity that exists between one part of the text and another one. This continuity is significant from two aspects. On the one hand, that continuity shows at each stage in the discourse the points of relations or contact with what has been said before. On the other hand the continuity provided by the cohesion helps the readers to fill in the gap in the discourse. To supply all the components of the message which are not present in the text but are important and necessary to its interpretation. There are some holes in a complete text because it is not possible for the writer to supply all the details. But the reader can supply all the details. But the reader can supply the missing points even though the text is not complete. It is so because the cohesion makes the interaction between reader and the text possible. Cohesion is used by both readers and writers to create coherence in the text. On the whole, cohesive devices contribute to texture, readability and comprehensibility of a text.

There are five major types of cohesive devices 1) reference, 2) substitution, 3) ellipsis, 4) conjunction, 5) lexical cohesion. The first four are grammatical and the last one is lexical. According to Halliday and Hassan (1976) lexical cohesion is "phoric" relation which is established through the structure of vocabulary and it is a relation on the lexicogrammatical level. Lexical cohesion comes about through the using of items that are related in some way to those that have gone before. In short, lexical cohesion occurs when two words in a text are related in terms of their meaning. Reiteration and collocation are two major types of lexical cohesion. Reiteration includes repetition, synonymy or near-synonymy, hyponymy (specific-general) memorymy (part-whole), antonym and general nouns.

## **METHOD**

The following part presents the characteristics of the sample, the instrument, the procedure and the sort of the method employed in this study.

### **Corpus of the Study**

The data for this study consist of 40 Times and Tehran Times newspapers. 20 written by English native and 20 written by Iranian authors will be selected. To have an almost equal amount of data in Times and Tehran Times in sport texts, the number of 988 words from Times and 944 from Tehran Times were analyzed. The total number of words analyzed will be about 1932 for each one roughly.

### **Instruments and Materials**

The use of lexical cohesion in sport texts of both Times and Tehran Times newspapers written by English native and Iranian authors will be identified and marked. To analyze the text concerned a two-tailed -test is used. Then they will be analyzed based on Halliday and Hassan's framework (1976) and compared one by one in order to

investigate the number of lexical cohesion sub-types use in Times and Tehran Times for three months. Finally the data will be analyzed by SPSS program.

## Procedure

Since it was important that the texts analyzed in this study be comparable, an effort was made to select news texts which according to the linguistic knowledge were on general topics and accordingly could be treated as being similar in some respects. That is, regarding the content it will not be far-fetched to categorize the two newspapers .And, in this regards, again it can be claimed that, the language used in both Times and Tehran Times corpus is the same as unmarked variety of language which are comprehensible for ordinary native and non-native English readers. The data of this study was collected from 20 texts taken from Times and 20 from Tehran Times newspapers. In order to make the corpus comparable, 40 short texts were analyzed. The two texts under investigation were read carefully, then the use of sub-types of lexical cohesion in two newspapers will be read carefully, then the use of sub-types of lexical cohesion in two newspapers will be identified and marked to analyzed according to Halliday and Hassan's framework (1976) and compared one by one in order to investigate the number, degree, frequency and density of sub-types of lexical cohesion in Times and Tehran Times newspapers.

This study is based on quantitative method and data analysis will be done by SPSS software. In order to determine the frequency of lexical cohesion pattern in both newspapers, the observed frequencies of each pattern will be counted and summed. Then the differences and similarities between them will be recognized. The data are put together in separate tables to allow one to make more valid comparisons between the lexical cohesion sub-types.

## RESULTS

This section focuses on the quantitative analysis of the obtained data in this study. Such analysis was done using the SPSS software. Table (1, 2) shows the frequency of lexical cohesion sub-types and the density of lexical cohesion sub-types in Times and Tehran Times newspapers. Table 1 shows the frequency of lexical cohesion sub-types in Times and Tehran times newspapers.

**Table 1.** The average percentages of lexical cohesion sub-types in sport texts of Washington Times and Tehran Times

Type of lexical cohesion	R	S	M	C	G	H	A
Times sport texts	14.04	5.66	4.95	3.62	3.30	2.91	2.00
Tehran Times sport texts	14.33	6.33	4.41	3.50	2.91	2.30	2.00
T values	0.21	1.00	0.07	-0.26	-0.47	-0.37	0.00
R=repetition C=collection	S=synonymy	M= meronymy	H=hyponymy	G=general noun	A=antonymy		

**Table 2.** The density of lexical cohesion sub-types of Times and Tehran Times

Group	A	C	G	H	S	R	Word number	Number of text	Group
Persian mean	20	944	401 14.3333	156 6.3333	60 2.3043	74 2.9167	87 3.5000	45 2.0000	121 4.9167
English (mean)	20	983	395 14.0417	178 5.6667	62 2.4167	79 3.3043	95 3.6250	45 2.0000	126 4.9583

As displayed in Table 1 and table (see the appendix), sport text in Tehran Times newspaper repetition is the most frequently used sub-type of lexical cohesion. The next frequent sub-typed is synonymy followed by Meronymy and Collocation, General noun, Hyponymy, Antonomy, i.e. R, S, M, C, G, H, A. In the case of sport texts in Times newspaper repetition has the highest percentage of occurrence as well. The next frequently used sub-type is Synonymy followed by Meronymy, Collocation, General noun, Hyponymy and Antonym, i.e. R, S, M, C, G, H, A. It is noteworthy that the orders of the sub-types are almost the same in both languages. It can also be noticed that the densities of the sub-types vary within each group of text.

The results indicate the occurrences of all sub-types are almost the same in both languages. The two groups of all sub-types are almost the same in both languages. The two groups of text exhibit a general tendency toward the use of repetition, i.e. 14.33 vs. 14.04. But hyponymy and antonym play minor roles in producing cohesion in both languages (about 2%).

To see whether the differences between them percentage of lexical cohesion sub-types in sport texts in Times and Tehran Times newspapers are statistically significant or not, for each case two-tailed t-test was run and the observed values soft were computed and compared with the t critical values at 0.5 level of significance. With regard to the number of degrees of freedom, is 46 in the t-distribution table.

As the figures in Table 1 show, in all cases the differences are not statistically significant, so, it can be concluded that the occurrences of sub-types are approximately the same in both group of texts. The densities of lexical cohesion in the texts were determined by dividing the total number of lexical cohesion in each language by the total number of sentences in that language. The obtained figures are 4.89 and 4.86 for sport texts in Times and Tehran Times newspapers respectively. By doing two tailed t-test, it became clear that the difference is statistically significant. Thus, Times are desert than their corresponding Tehran Times ones.

**DISCUSSION AND CONCLUSION**

The contrastive study of lexical cohesion in sport texts in Times and Tehran Times newspapers revealed that the occurrence of all the sub-types of lexical cohesion devices as well as their orders are almost the same in both languages. In Tehran Times sport texts, R, S, M, C, H, G, A and in Times sport texts, R, S, M, C, G, H, A appear with decreasing percentages of occurrence, respectively. In both groups of texts, repetition is the most

but hyponymy and antonymy are the least frequently used sub-types. And finally, the densities of the texts regarding the use of lexical cohesion are not the same. The application of a two-tailed t-test revealed that the difference was statistically significant and Tehran Times sport texts are denser than their corresponding Times sport texts.

This research is in line with Shahragard (1992) whose data is different ours. Sahragard's data are selected from among contemporary Persian and English plays, as well as Persian translation of English plays. The other study is by Yarmohammadi (1995) whose data is the same to our research. Yarmohammadi's data consist of political texts in two newspapers published in Iran, i.e., Kayhan International in English and Kayhan in Persian. What is important to note is that the result they obtained from their studies, are strikingly analogous to ours.

Reading is a process of interaction between the reader and the text in which the reader gets meaning from the text but not from isolated sentences. The fact is that there is a difference between a collection of unrelated sentences and a series of sentences comprising a text. This difference can be explained by the existence of some relationships between sentences including theme/rhyme, information structure, cohesive patterns,

As elaborated by Yarmohammadi (1995) if a pattern of cohesion becomes evident while analyzing these relationships, it must be that this pattern is at least one factor in the explanation of the greater meaning of a whole text. So for the EFL and ESP learners knowing the fact that the sub-types of cohesive relations exist within different texts in different order and with different degree of utilization makes the interactions between them and the next easy.

Neglecting this pattern (cohesion) is one of the reasons that many Iranian students can't read and comprehend the text outside the class because reading is not treated as it is by Iranian teachers. The same is true for the students' writing skill. Many students who have graduated from high school cannot write a coherent paragraph. Even though they can write correct sentences in isolation, a coherent text not isolated sentences is frequently used. The issue that students cannot communicate via written language can be explained by the assumption that sentences elements which create cohesion have not been taught. We should bear in mind that good writers are usually good readers.

Based on the findings of present study following proposals are offered: Lexical cohesion can be investigated on different genres such as written texts and, short story. Lexical cohesion in English language can be compared with different languages. Relation lexical cohesion with skills of EFL learning can be studied in order to learn skills better.

**REFERENCES**

- Bex, T. (1996). *Variety in written English: texts in society, societies in text*. London: Routledge.
- Campbell, K.S. (1994). *Coherence, continuity and cohesion: theoretical foundation for document design*. Denton TX: University of North Texas Press.
- Dooley, E and Levinson, B. (2004). *Discourse studies in Persian language*. University of London press.
- Graham, S. J. (2004). Giving up on modern foreign languages? Students' perceptions of learning French. *Modern Language Journal*, 88, 171–191.
- Eggin, S. (1997). *An international to systematic function*. London: Printer publisher Ltd.
- Gonzalaze, M. (2011). *Lexical cohesion in multiparty conversations*. Oxford University Press: Oxford.
- Halliday, M.A.K., & Hasan, R. (1976). *Cohesion in English*, London: Longman.
- Halliday, M. A. K., & Hasan, R. (1985). *Language, context, and text*. Oxford University Press: Oxford.
- Halliday, M. A. K., (1985). *An introduction of functional grammar*. London, Edward Arnold.
- Halliday, M. A. K., & Hasan, R. (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. Oxford University Press.
- Hyland, k. (2008). *Genre and academic writing in the disciplines*. Language Teaching. 41,543-562.
- Lotipour, K. (1991). *Analyzing literary discourse: implication for literary translation*. Paper presented at Tabriz university conference on translation, Tabriz.
- Irvin, L. (2010). *What is academic writing? San Francisco, USA. Parlor Press*.
- Johnstone, B. (2008). *Discourse analysis*. Oxford: Blackwell Polishers Ltd.
- Malkjar, K. (2004). *The linguistic encyclopedia*. London: Routledge.
- Martin, J,R. (1992). *English text: system and structure*. John Benjamin's Publishing Co: The Netherlands.
- McCarthy, M. (1991). *Discourse analysis for language teachers*. Cambridge University press: Cambridge.
- Mojica, L, A. (2006). Reiterations in ESL learners' academic papers: do they contribute to lexical cohesiveness? *The Asia-Pacific Education Research*, 15,105-125.
- Mirzapour, F., & Ahmadi, M. (2011). Study on lexical cohesion in English and Persian research articles: A comparative study. *English Language Teaching*, 4 (4), 245-253
- Nunan, D. (1993). *Introducing discourse analysis*. Penguin Group: England.
- Noor-Mohammadi, A. (1993). *A Contrastive study on the application of cohesion devices in English and Persian*. Unpublished MA thesis, Shiraz University, Iran.
- Petchprasert, A. (2013). A study of cohesive markers used in L1 and L2 essay writing. *The Southeast Asian Journal of English Language studies*, 1, 19-32.

- Raimes, A. (1983). Tradition and revolution in ESL Teaching. *TESOL Quarterly*, 17,535-552.
- Richards, J. C. & Schmidt,R. (1992) . *Longman dictionary of language teaching and applied linguistics*. London: London University Press.
- Rostami, A & Abousaeedi, A. (2020).Use of cohesive ties in English as a foreign language students' writing. *Iranian Journal of Applied language studies*, 2,137-156.
- Reppen, R. (1995). A genre –based approach to content writing instruction. *TESOL journal*, 4, 32-35.
- Robert, D. (2004). *Different aspect of discourse analysis including an introductory description of discourse studies in Persian*. London University Press.
- Schunk, D, H. (2004). *Learning theories: an educational Perspective*, New Jersey: Pearson. New Jersey University Press.
- Sahragard. R. (1991). *Lexical cohesion in English and Persian*. Paper presented at Tabriz-Baku 1st Conference on Language Teaching Issue, Tabriz, Iran.
- Seddigh, F, Shokrpour, N, and Kafipour, R. (2010). Lexical cohesion in English and Persian abstract. *Iranian Journal of Applied Language Studies*, 2, 157-168.
- Yarmohammadi, L. (1995). *Fifteen articles in contrastive linguistic and structure of Persian: grammar, text and discourse*. Rahnama publishers.
- Widdowson, H, G. (1973). *An Applied linguistic approach to discourse analysis*, PhD Thesis. University of Edinburg. Edinburg Press.
- Zoghi, M. & Rashidi, E. (2013). A study of lexical ties used in medical science articles written by Iranian and English authors. *International Journal of Language Education*, 2(1), 1-14.

## APPENDIX

	F	Sig	T	df	Two - tailed	Mean	Standard derivation	The level of confidence	
								lower	Higher
equal Variance R	0.106	0.747	0.215	46	0.831	0.2917	0.35821	-	3.02560
unequal Variance			0.215	45.954	0.831	0.2917	0.35821	2.44227	3.02567
equal Variance S	0.521	0.474	1.001	46	.322	0.6667	0.66576	-	0.00677
Unequal Variance	0	0	1.001	43.224	0.322	0.6667	0.66576	-	0.00910
equal Variance C	0.50	0.824	0.264	46	0.793	.125	0.47324	-	0.82759
Unequal Variance	0	0	-	46.000	0.739	0.1250	0.47324	-	0.82759
equal Variance M	0.21	0/895	0.078	46	0.938	0.0417	0.53635	-	1.03794
Unequal Variance	0	0	-	45.908	0.938	-	0.53635	-	1.03800
equal Variance G	0.05	0.824	0.476	45	0.636	0.3877	0.81460	-	1.25300
Unequal Variance	0	0	-	44.998	0.636	-	0.81393	-	1.25106
equal Variance H	0.306	0.583	0.370	45	0.713	-	0.30356	-	0.49909
Unequal Variance			0	-	43.860	0.712	1.1123	0.30222	-
equal Variance A	0/137	0.713	0.000	44	1.000	0.0000	0.38242	-	0.77072
Unequal Variance			0	0.000	43.713	1.000	0.0000	0.38242	0.77086