Discourse markers in the expository writing of Spanish university students

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Abstract

The aim of this study is to investigate the use of discourse markers in the expository compositions of Spanish undergraduates. Compositions were collected from a sample of 78 first-year English students at the faculty of Chemistry of the University of Oviedo. Fraser's (1999) taxonomy of Discourse Markers was used for the analysis of discourse markers in students' writing. The main findings were that students employed a variety of discourse markers with some types used more frequently than others. Elaborative markers were the most frequently used, followed by contrastive markers. There was a statistically significant relationship between the scores of the compositions and the number of discourse markers used in the same compositions. Thus, the larger the number of discourse markers used, the higher the score of the composition. We also found that there were statistically significant differences between the highly-rated and the poorly-rated compositions in the frequency of use of contrastive, elaborative and topic relating discourse markers. Those essays with a larger number of elaborative, contrastive and topic relating discourse markers obtained a higher score. Elaborative markers were the most closely related to the compositions' quality.

Key words: discourse markers, frequency, expository writing, quality.

Resumen

El objetivo de este estudio es investigar el uso de los marcadores del discurso en las composiciones expositivas de estudiantes universitarios españoles. Se recogieron las composiciones de 78 estudiantes de primer curso de inglés de la Facultad de Química de la Universidad de Oviedo. La taxonomía de marcadores del discurso de Fraser (1999) se utilizó para el análisis de los marcadores discursivos presentes en las composiciones de los estudiantes. Descubrimos que los estudiantes emplean una cierta variedad de marcadores discursivos, con una mayor frecuencia de ciertos tipos sobre otros. Así, los marcadores elaborativos fueron los más utilizados, seguidos de los marcadores de contraste. Uno de los resultados más destacados fue que existe una relación estadísticamente significativa entre las puntuaciones de las composiciones y el número de marcadores del discurso utilizados en estas composiciones. De este modo, cuanto mayor es el número de marcadores del discurso utilizados, mayor es la puntuación en las composiciones. Existe además una diferencia estadísticamente significativa entre

las composiciones de mejor y peor calidad con respecto a la frecuencia de uso de tres tipos de marcadores del discurso: marcadores de contraste, marcadores elaborativos y marcadores que relacionan tópicos. Aquellas composiciones con un mayor número de estos marcadores obtuvieron puntuaciones más altas. Los marcadores elaborativos son los que están más estrechamente relacionados con la calidad de las composiciones.

Palabras clave: marcadores del discurso, frecuencia, escritura expositiva, calidad.

Introduction

This study investigates the use of discourse markers in the expository composition of Spanish university students. The reason for this choice of text type is related to the fact that expository writing is one of those most frequently used by the Spanish students as EFL learners in their academic work in university. However, from our experience as teachers, we observe that Spanish students of English find it very difficult to construct an organised and coherent text in English. Some of the difficulties involve limited vocabulary, inadequate rhetorical organisation and poor or inadequate use of discourse markers. It is this last aspect, use of discourse markers, that is the concern of this study.

Discourse markers (hereafter DMs) are linguistic items such as *so*, *because*, etc. They are a set of clues which create cohesiveness, coherence and meaning in discourse.

Within the past fifteen years or so there has been an increasing interest in the theoretical status of DMs, focusing on what they are, what they mean and what functions they manifest. In order to understand the function of DMs in language it is necessary to refer to two approaches to DMs: the relevance-theoretic account and the coherence-based approach. Within coherence theory it is assumed that texts are coherent, there is a definable set of coherence relations and the recovery of such coherence relations is essential for comprehension. The function of DMs or ´cue phrases` as they are called is to make such coherence relations explicit. Here we will mention the work by Mann and Thompson (1986), Fraser (1990, 1999), Sanders, Spooren and Noordman (1993), Knott and Dale (1994), and Hovy and Maier (1994).

Within relevance theory the most influential work on DMs is Diane Blakemore´s book *Semantic Constraints on Relevance*, published in 1987 and followed by a series of articles, where she puts forward an account of connectives based on relevance-

theoretic assumptions about communication[1]. The relevantist perspective states that speakers interpret information searching for relevance. According to Blakemore (1987), connectives contribute essentially to the interpretation process. From this theoretical perspective, connectives are considered signals the speaker uses to guide cooperatively his hearer's interpretative process.

Usually a speaker has a specific interpretation of his utterance in mind and expects the hearer to arrive at that interpretation. To arrive at the intended interpretation of an utterance the hearer must process the utterance in the right, i.e. the intended context[2]. The selection of context is governed by considerations of optimal relevance. The speaker may have reason to believe that the hearer will choose the appropriate contextual assumptions and draw the appropriate conclusions without any extra help from him, or he may decide to direct the hearer towards the intended interpretation by making a certain set of assumptions immediately accessible. DMs is one of the linguistic devices the speaker may use to that effect. Blakemore (especially 1987, 1988, 1989a, 1989b, 1992 and 1993) considers that the essential function of elements like *likewise*, *therefore*, *because*, etc. is to guide the hearer's interpretation process through the specification of certain properties of the context and the contextual effects; more specifically, these elements constrain the relevant context for the interpretation of an utterance, reinforcing some inferences or eliminating other possible ones and thus help process the information[3].

Having looked at the two accounts above what is interesting to note is that there is a striking similarity in the way the relevance theoretic and the coherence based approach analyse the role of DMs in utterance interpretation. On both accounts DMs have a constraining function. For coherence theorists DMs constrain the relational propositions which express the coherence relations the hearer needs to recover in order to interpret a discourse. For relevance theorists DMs constrain the interpretation process by guiding the hearer towards the intended context and contextual effects. On both the relevance-theoretic account and the coherence-based approach DMs play a facilitating role.

Since DMs facilitate communication, it is logical to suppose that the lack of DMs in an L2, or their inappropriate use could, to a certain degree, hinder successful communication or lead to misunderstanding. L2 students must learn to signal the relations of their utterances to those which precede and follow. Therefore, in terms

of communicative competence, L2 learners must acquire the appropriate use of DMs of the L2. It is plausible to suppose that those nonnative speakers who are competent in the use of the DMs of the L2 will be more successful in interaction (both oral and written) than those who are not.

Hypothesis and research questions

The present study aims to identify and quantify the DMs of students' compositions. It intends to analyse the relation between the use of DMs and the quality of writing, and identify some of the features that characterize students' compositions with regard to the choice and use of DMs. We will investigate the following research questions:

1. What is the frequency of use of DMs in the students' compositions?
2. What is the relationship between the frequency of use of DMs and the quality of the compositions?
3. Are there any differences among DM types with respect to their influence on the quality of the compositions?
4. Are there any common characteristics in the students' writing in using DMs?

Procedure

Compositions were collected from a sample of 78 first-year English students at the faculty of Chemistry of the University of Oviedo. Each student wrote one essay. A topic was prescribed for all of them. The essay topic was *The Importance of the Drift Theory by A. Wegener.* The Drift Theory is a theory of plate tectonics that students are familiar with since they study this revolution in geology in secondary school and in the subject *geology* at the University. They were asked to write within an hour an essay of about 250 words at one sitting and under the same conditions.

The study employed the following criteria for assessing all the students' essays: content (if they showed substantive, some knowledge or limited knowledge of the subject), organization (if the essay was well organized, with ideas clearly supported, if it was somewhat choppy with limited support or non-fluent with ideas disconnected), vocabulary (if the essays showed a sophisticated range of vocabulary, a limited range of vocabulary or showed little knowledge of vocabulary), languages

use (if the essays had effective complex constructions, effective but simple constructions with minor problems in sentence constructions or showed major problems in sentence construction) and mechanics (if the essays showed mastery of conventions, occasional errors of spelling or punctuation, or no mastery of conventions with frequent errors of spelling, punctuation and paragraphing).

The essays collected from the students were assessed following these criteria by two independent raters. The final marking was the result of dividing each rater's score by two.

The essays were analysed for DMs after the marking. Analysis of the compositions for DMs was performed in accordance with the taxonomy of DMs proposed by Fraser (1999). For statistical analysis, we analysed the data with SPSS statistical software. Specifically, we used a SPSS program version 10.0 for Windows.

Fraser's (1999) taxonomy of discourse markers

Fraser's (1999: 946-950) taxonomy was selected as a framework for the analysis of the DMs in students' essays (see for alternative classifications, Quirk et al., 1985). The reason for this choice is that we agree with his characterization of DMs and his description of the role they play in discourse. In his 1999 paper Fraser defines DMs as a pragmatic class, lexical expressions drawn primarily from the syntactic classes of conjunctions, adverbials, and prepositional phrases. With certain exceptions, they signal a relationship between the interpretation of the segment they introduce, S2, and the prior segment, S1. They have a core meaning which is procedural, not conceptual, and their more specific interpretation is ´negotiated` by the context, both linguistic and conceptual. There are two types: those that relate aspects of the explicit message conveyed by S2 with aspects of a message, direct or indirect, associated with S1; and those that relate the topic of S2 to that of S1.

There are three main subclasses in the first class. The first class refers to DMs that signal that the explicit interpretation of S2 contrasts with an interpretation of S1. Fraser labels such DMs Contrastive Markers. This group includes, distinguished by subtleties of meaning:

    a.   *but*
    b.   *however*, *(al)though*

    c.   *in contrast (with/ to this/ that), whereas*

    d.   *in comparison (with/ to this/ that)*

    e.   *on the contrary, contrary to this/ that*

    f.   *conversely*

    g.   *instead (of (doing) this/ that), rather (than (doing) this/ that)*

    h.   *on the other hand*

    i.   *despite (doing) this/ that, in spite of (doing) this/ that, nevertheless, nonetheless, still.*

A second subclass of DMs relating aspects of S2 and S1 messages signal a quasi-parallel relationship between S2 and S1. This subclass of DMs is referred to as elaborative markers and includes:

    a.   *and*

    b.   *above all, also, besides, better yet, for another thing, furthermore, in addition, moreover, more to the point, on top of it all, too, to cap it all off, what is more*

    c.   *I mean, in particular, namely, parenthetically, that is (to say)*

    d.   *analogously, by the same token, correspondingly, equally, likewise, similarly*

    e.   *be that as it may, or, otherwise, that said, well*

A third subclass is made up of DMs which signal that S2 is to be taken as a conclusion based on S1. Within this group which Fraser (1999: 948) labels inferential markers, we have:

    a.   *so*

    b.   *of course*

    c.   *accordingly, as a consequence, as a logical conclusion, as a result, because of this/ that, consequently, for this/ that reason, hence, it can be concluded that, therefore, thus*

    d.   *in this/ that case, under these/ those conditions, then*

    e.   *all things considered*

Finally, Fraser (1999) distinguishes some additional subclasses: a group of DMs which specifies that S2 provides a reason for the content presented in S1. In this group we find:

    •   *after all, because, for this/ that reason, since*

While the first class of DMs involves the relationship between aspects of the explicit message of the segment S2 and either an explicit or non-explicit message of S1, the second class of DMs distinguished by Fraser (1999) consists of DMs which relate topics. DMs included in this type, labelled topic relating DMs, are:

- *back to my original point, before I forget, by the way, incidentally, just to update you, on a different note, speaking of X, that reminds me, to change to topic, to return to my point, while I think of you, with regards to.*

After analysing Fraser's (1999) classification we noted that there were some DMs which are not in this classification which we consider should be included as they signal a relationship between segments. Thus, we will add to Fraser's second subclass of DMs (elaborative markers) that signal a quasi-parallel relationship between S2 and S1, those DMs which signal that there is a conclusion between the content of S2 and S1 (*in short*, *in conclusion*, etc.), and DMs which signal that the content of S2 is to be taken as a concretion or example of a previous generalization (*for example*, etc.).

For each essay DMs were counted and identified and classified under the appropriate type.

Review of the literature

In order to help us design our own study, we have first reviewed the literature on this topic. Demirci and Kleiner (1997) is one of the few studies that approaches the use of DMs by students of English. The study by Demirci and Kleiner (1997) focuses on the use of DMs by advanced Turkish learners of English. They conduct a pilot study to answer the question of whether nonnative speakers use DMs, whether they use some markers and not others and whether there are nonnative uses of certain markers. They set out to answer these questions by collecting natural language data from interviews to four subjects that had resided in the United States as students for at least three years. The data revealed that DMs were employed extensively by participants. However, the participants differed from each other in several respects. Although all participants made use of some DMs, some participants employed a wider range of markers than others. Some learners used certain markers extensively, while others utilised the same markers rarely if at all. Besides, the results suggest that those markers and those markers' functions in the L2 which are also available in the first language will be acquired first with relative ease.

There are a considerable number of studies that analyse the use of cohesive features in students' compositions. We will consider these studies since within cohesive features are included conjunctions with a similar function in the language to that of DMs.

Hu et al. (1982) analysed using frequency counts the use of cohesive ties by 12 Chinese university students in comparison with 12 Australian university students. The framework used was Halliday's functional grammar. They found that Chinese students used more conjunctions and Australian students more lexical cohesion. Johns (1984) in his descriptive analysis of English essays by tertiary-level teachers using Halliday and Hasan (1976) as a framework discovered that conjuncts were over-used and lexical cohesion was not used extensively by native-speakers. Connor (1984) compared 6 essays written by natives and ESL non-natives. Halliday and Hasan's (1976) framework for analysis was used. For statistical analysis he chose frequency counts. He found that the number of ties was not a discriminating factor between the native students and ESL students. Allard and Ulatowska (1991) in a study with 30 fifth-grade children, native speakers of English, using Halliday and Hasan (1976, 1985) as a framework, found a high correlation between number of lexical ties and writing quality. Narrative and procedural texts were used. For narratives, but not for procedures, cohesive harmony was more strongly correlated with writing quality. Finally, there were marked differences in cohesive properties across discourse types. Field and Yip (1992) compared 67 Hong Kong students with 29 Australian students writing on an argumentative topic. They followed Halliday and Hasan (1976) as a framework. The statistical analysis chosen was a t-test. The finding was that Hong Kong students used more conjunctions than Australian students and they usually put all conjunctions at the beginning of the sentence. Johnson (1992) analyzed 20 essays in Malay, 20 essays in ESL by the same group of Malay students and 20 essays in English by native speakers. The type of text was expository. He chose Halliday and Hasan (1976) as a framework. The statistical analysis followed was a t-test. He found no relation between frequency of ties and quality of writing. This same finding can be found in Karasi (1994) who analyzed through correlation 135 expository essays by Singapore secondary students. Norment (1994) studied 30 Chinese college students writing in Chinese and English on both expository and narrative topics. He used Halliday and Hasan (1976) as a framework. The statistical analysis followed was ANOVA. He found that there was a relation between frequency of ties and quality of writing and there was a difference between text types in the use of cohesive devices.

Zhang (2000) focused on the use of cohesive features in the expository compositions of Chinese undergraduates. He collected one hundred and seven essays from two Chinese universities. Halliday and Hasan's (1976) taxonomy of cohesive devices and their framework for analysis were used. For statistical analysis he chose descriptive statistics and later inferential statistics (Pearson correlation and analysis of variance ANOVA). Students employed in their writing a variety of cohesive devices with some categories of ties used more frequently than others. Lexical devices were the most frequently used, followed by conjunctions and reference devices. There was no statistically significant relationship between the number of cohesive ties employed and the quality of writing. Certain cohesive features were identified in the expository writing of Chinese undergraduates which included overuse and misuse of conjunction and restricted use of lexical cohesion.

Taking these research studies together one should note that the sample sizes are generally small and some of the studies are of a descriptive nature or have frequency counts. There is, consequently, a great deal of tentativeness and contradiction in the conclusions about the relationship between cohesion in general and conjuncts in particular and the quality of writing, and therefore the question remains an open one.

Results

We will present the results obtained from the different statistical analyses carried out in order to provide answers to the different research questions formulated.

Research Question 1: What is the frequency of use of DMs in the students' compositions?

The first step we took was to calculate the mean and percentage of DMs used of each type, that is to say, how often each DM type is employed and the quotient obtained by dividing the number of times each DM and the different types of DM are used. Table 1 below shows that the subjects in this study employed a variety of DMs with some types used more frequently than others. Elaborative markers were the most frequently employed (45.18%), followed by contrastive markers (27.29%), causative markers (16.2%), inferential markers (5.78) and topic relating markers (0.42%). The extensive use of elaborative markers may be explained because expository writing in general requires elaboration of ideas which depends on the use

of elaborative markers to signal quasi parallel relationships between segments. Zhang (2000) reported a similar result. She found in her study on cohesion extensive use, even overuse, of the following additive conjunctions: *and*, *also*, *besides*, *in addition*, *furthermore*, *what is more*.

Discourse markers	Contrastive markers	Elaborative markers	Inferential markers	Causative markers	Topic relating markers	Total
Mean per essay	1.7949	2.6410	0.3590	1.0128	1.282	6.2179
Percentage	27.2949%	45.1886%	5.7866%	16.2008%	0.4274%	100%

Table 1. Type of Discourse Markers Used

We will now go on to approach our second research question.

Research question 2: What is the relationship between the frequency of use of DMs and the quality of the compositions?

A major objective of the study, apart form the general description of the frequency of use of DMs, was to investigate the relationship between the number of DMs employed and the quality of writing. This was done through a multiple regression analysis. This analysis studies to what extent the variations in the dependent variable are influenced by other variables that we call independent. In the model, score in the composition was the dependent variable as an indicator of the quality of the writing, and the total number of DMs used in each composition the independent variable. The mean obtained for the former variable is 5.9808 and for the latter 6.2179. Compositions were scored using a 0 to 10 scale. We grouped the essays into three groups according to their scores, which we labelled Group A, B and C essays: Group A essays were considered well-written essays, their score was between 7 and 10, Group B essays were considered to be average essays (score=5 to 6.9) and Group C essays were considered to be poor essays (score= 0 to 4.9). Therefore, the mean obtained shows that compositions tended to be scored as average.

We will present next the results of the multiple regression analysis using a step by step selection method. Table 2 shows the most important results of the regression analysis.

Regression equation: Score in the compositions = 3.743 + 0.36 x number of discourse markers used.					
SUMMARY OF THE MODEL					
Model	R	R square	R square corrected		Estimation typical error
Step 1	0.646	0.418	0.410		1.4065
Model	Change in R square	Change in F	gl1	gl2	Sig. of the change in F
Sep 1	0.418	54.536	1	76	0.000
ANOVA	Sum of squares	gl	Square mean	F	Significance
Regress. Residual Total	107.880 150.341 258.221	1 76 77	107.880 1.978	54.536	0.000
Model	Non standardized coefficients		Standardi. coefficients	T	Significance
	B	Typical Error	Beta		
(Constant) Num. of discourse markers in each compo.	3.743 0.360	0.342 0.049	0.646	10.938 7.385	0.000 0.000

Table 2: Summary of regression analysis results: frequency and quality

Correlation was computed between the numerical essay scores and the frequency of DMs by means of a Pearson correlation test, that is to say, a test that explains relationships among variables. We found that there was a statistically significant relationship between the scores of the compositions and the number of DMs present in the same compositions. The correlation has a value of 0.646. We can therefore say that the larger the number of DMs used, the higher the score of the composition.

The number of DMs was a discriminating factor in relation to the quality of writing. The level of explanation of the score is quite high: 41%. That is to say, the number of DMs used explains 41% of the differences among scores. We can affirm that the use of DMs is an indicator of the quality of the students' compositions, and therefore of their writing skill in English.

We have so far shown that there is a statistically significant relationship between the scores of the compositions and the number of DMs present in the same compositions, so, it means that the larger the number of DMs the better the quality of the compositions. We decided to take a further step and analyse if all the DM types have the same influence on the quality of the compositions, which is the aim of our third research question.

Research question 3: Are there any differences among DM types with respect to their influence on the quality of the compositions?

With this objective, that is to say, find out if there were significant differences with respect to the frequency of use of the different DM types between the highly-rated and the poorly-rated compositions, we carried out two analyses: a univariate Kruskal-Wallis analysis and a multiple regression analysis.

The compositions were grouped by means of a scale that assessed their quality from 0 to 10. As we have already said, we grouped the essays into three groups according to their scores, which we labelled Group A, B and C essays: Group A essays were considered well-written essays, their score was between 7 and 10, Group B essays were considered to be average essays (score=5 to 6.9) and Group C essays were considered to be poor essays (score= 0 to 4.9).

The Kruskal-Wallis analysis, a non-parametric test for the statistical analysis of one variable with respect to another, based on the representativeness of the data chosen within the total data of a whole sample, was intended to find out if there were statistically significant differences between these groups with respect to the frequency of use of the different DM types. We found that there were statistically significant differences between the essays in the frequency of use of contrastive and elaborative DMs. Those essays with a larger number of contrastive and elaborative DMs obtained a higher score. This appears in Table 3.

	Number of contrastive discourse markers	Number of elaborative discourse markers
Chi-square	6.998	33.308
Gl	2	2
Sig.	0.030	0.000

Significance level set at 0.05

Table 3. Kruskal-Wallis test: Relationship between use of contrastive and elaborative markers and the quality of compositions

We also calculated the mean number of each DM type present in A, B and C essays (see Table 4 below).

Group B essays	1.9545	2.0909
Group A essays	2.1515	3.8485

Table 4: Mean number of contrastive and elaborative discourse markers in Group A, B and C essays

From these results, we can conclude that the better compositions have a larger number of contrastive and elaborative DMs and this is specially so for

From these results, we can conclude that the better compositions have a larger number of contrastive and elaborative DMs and this is specially so for elaborative markers.

In order to go deeply into the analysis, apart from the univariate analysis above, we needed to apply a more thorough technique, a multivariate statistical technique in which multiple variables are involved. Thus, we carried out a multiple regression analysis using a step by step selection method[4]. The independent variables are the number of DMs of each type. Table 5 shows the results of the multiple regression analysis carried out.

Regression equation: Score in the compositions = 3.447 + 0.732 x number of elaborative markers + 0.306 x number of contrastive markers +3.941 x number of topic relating markers.				
SUMMARY OF THE MODEL				
Model	R	R square	R square corrected	Estimation typical error
Step 1	0.647	0.419	0.419	1.4050
Step 2	0.702	0.492	0.479	1.3219
Step 3	0.742	0.550	.532	1.2532
Model	Change in R square	Change in F	gl1	gl2	Sig. of the change in F
Step 1	0.419	54.807	1	76	0.000
Step 2	0.073	10.861	1	75	0.002
Sep 3	0.057	9.447	1	74	0.003
ANOVA	Sum of squares	gl	Square mean	F	Significance
Regress.	142.007	3	47.336	30.141	0.000
Residual	116.214	74	1.570		
Total	258.221	77			
Model	Non standardised coefficients		Standardi. coefficients	T	Significance
	B	Typical Error	Beta		
(Constant)	3.447	0.309		11.168	0.000
Num. of elabora. Markers	0.732	0.086	0.679	8.556	0.000
Num. of contrast. markers	0.306	0.090	0.266	3.404	0.001
Num. of topic relating markers	3.941	1.282	0.244	3.074	0.003

Table 5. summary of regression analysis results: independent variables of discourse marker types.

From the results obtained, we can say that the larger the number of elaborative DMs the higher the score in the composition, the larger the number of contrastive DMs the higher the score in the composition, and the larger the number of topic relating DMs the higher the score in the composition. We observe a positive and direct relationship in every case. These findings confirm the results of the previous analysis carried out and include a third type of DM, topic relating DMs as an indicator of the compositions' quality.

This analysis also allowed us to see that elaborative DMs explain 41.1% of the quality of the compositions, contrastive DMs explain 6.8% (47.9-41.1) of the quality of the compositions and topic relating DMs explain 5.3% (53.2-47.9) of the quality of the compositions. In all they explain 53.2% of the quality of the compositions. Thus, elaborative DMs are the most closely related to the compositions' quality, much less contrastive and topic relating DMs. Elaborative markers were also the most frequently used. This shows the importance of this type of DM, both with respect to the number of DMs of this type used and the effect of this type of DM on the compositions' quality.

Research question 4: What are some of the common features in the students' writing in using DMs?

The same set of essays was also analysed qualitatively in order to discover more about the patterns of use of DMs. As we have said, elaborative markers had the highest percentage of use. The elaborative markers present in the compositions were the following: *also*, *besides*, *in addition*, *moreover*, *that is (to say)*, *likewise*, *and*, *for example*, *to sum up*, and *in short*. There was a difference of effectiveness in the use of elaborative DMs between the highly-rated essays and the poorly-rated essays. The highly-rated essays in general tended to present a larger variety of elaborative markers with the result that these were very effective in the development of the ideas whereas the poorly-rated essays tended to repeat the same markers and as a result they looked redundant.

The contrastive markers were also widely employed by the students. The markers of this type used are: *but*, *however*, *although*, *whereas*, *nevertheless*, *on the contrary*, *on the other hand*, *in contrast (with/to this/that)*, *whereas*, *instead (of (doing) this/that)*, *despite (doing) this/that*, *in spite of (doing) this/that*. There was again a difference in the use of contrastive DMs between the highly-rated essays and the poorly-rated essays. The highly-rated essays in general tended to present a larger variety of contrastive markers whereas the poorly-rated essays tended to repeat the same markers (*but*, *however*). There were cases of misuse, that is to say, they were employed in situations where there was not a contrast between the explicit interpretation of S2 and an interpretation of S1.

The causative markers used were *because*, *for this/that reason*, *since*. Here it is worth pointing out the fact that *since* was only employed as a causative marker in the highly-

rated essays. We observe that the students are not familiar with the use of *since* as a DM.

The inferential markers used were *so*, *as a consequence*, *as a result*, *because of this/that, consequently*, *for this/that reason*, *therefore* and *then*. We do not observe differences in the use of these DMs between the highly-rated and poorly-rated compositions.

Finally, the topic relating DMs used were *with regards to* and *in relation to*. We only find these markers in highly-rated compositions.

We observe in general the use of quite a large variety of DMs within each type with the exception of topic relating markers and a larger variety of DMs in the good compositions and repetition of the same markers in the poor compositions.

Discussion

The present study shows that students employ a variety of DMs in their compositions with some types used more frequently than others. Elaborative markers formed the largest percentage of use (45.18%), followed by contrastive markers (27.29%), causative markers (16.2%), inferential markers (5.78) and topic relating markers (0.42%). This tendency to use elaborative markers extensively is explained by the fact that expository writing in general requires elaboration of ideas which depends on the use of quasi parallel relationships between segments which are signalled by elaborative markers. At the same time, it is also possible that the limited use of the other DMs, especially inferential and topic relating markers, which were least used, reveals a weak area requiring more attention in teaching English as a foreign language.

Considering this finding one should note the need to continue this line of research and carry out another study using other types of texts as well in order to analyse and clarify if the frequency of use of a DM type is related to the type of text written or to the student's knowledge of the marker.

An important finding of the study was the statistically significant relationship between the scores of the compositions and the number of DMs used in the same compositions. Thus, the larger the number of DMs utilised, the higher the score of the composition. The level

of explanation of the score is substantially high. DMs explain 41% of the differences among scores. We can conclude that the frequency of use of DMs is an indicator of the quality of the compositions, and therefore of the students´ writing skill in English.

We also found out that some DM types had a stronger influence on the quality of the compositions. Specifically, there were statistically significant differences between the essays in the frequency of use of elaborative, contrastive and topic relating DMs. Those compositions with a larger number of contrastive DMs, of elaborative DMs and topic relating DMs obtained a higher score. Elaborative DMs explain 41.1% of the quality of the compositions, contrastive DMs explain 6.8% and topic relating DMs explain 5.3% of the quality of the compositions. In all they explain 53.2% of the quality of the compositions. Elaborative DMs are the most closely related to the compositions' quality.

We can say that our study's findings show the importance of the elaborative type of marker, both with respect to the number of DMs of this type used in the compositions and the effect of this type of DM on the compositions' quality.

In the qualitative analysis, it was found that there was a difference in the use of the elaborative, contrastive and topic relating DMs between the better writers and the weaker ones. The former in general tended to use a larger variety of markers in their essays whereas the latter tended to repeat the same markers and in the case of contrastive markers they were sometimes used without any explicit or implied contrast. Topic relating DMs were only present in the highly-rated compositions. These findings seem to confirm the effect of these three discourse types on the compositions' quality obtained in the quantitative analysis of the data.

We think that these findings have important pedagogical implications for the teaching and learning of English writing for Spanish university undergraduates. The use of DMs, which is found to be a discriminating factor in the quality of the students' compositions merits special and long-term attention. Students should be encouraged to learn DMs as elements to improve the quality of their writing. It may be necessary that focused lessons be developed in this regard. It is necessary to explain to them clearly with adequate examples the meaning and correct use of DMs in English. It is also important to focus on the DMs within each type they do not use or use less like inferential and topic relating DMs to increase the variety of their DMs, and to focus on the cases of misuse to enable them to write better English compositions.

The present study has certain limitations in terms of generalizability. The major limitation of the study was that it was confined to first-year Chemistry students. The findings therefore cannot be generalized to the writing of all university students from the University of Oviedo. In order to palliate this limitation we intend to carry out a future research work with students from different faculties and colleges. This will increase our understanding of the effect of the use of DMs on the quality of University students' writings, an issue of relevance for assessing their writing skill in English as our study has shown.

NOTAS

[1] Sperber and Wilson (1995) have developed a theory, the Relevance Theory, based on Grice. This is a pragmatic model that attempts to explain how speakers interpret utterances. It is based on a hypothesis of a cognitive nature about how human beings process linguistic information. This hypothesis suggests that the mind's central processor is highly effective in handling the information because it is specifically oriented towards the search for relevance.

[2] Context includes not only the information about the immediate physical environment (physical context), or about previous utterances (linguistic context or co-text), but also a set of assumptions stored in memory and deductively accessible, which participate in the interpretation of an utterance as well. These assumptions are made up of information of all kinds: beliefs, cultural knowledge, sociolinguistic competence, daily experience, encyclopaedic knowledge of the world, etc.

[3] DMs are characterised as aids or instructions for interpretation – specifically, the facilitation of inferences- and, therefore, they are considered elements with procedural meaning. Blakemore proposes that DMs do not have a representational meaning the way lexical expressions like *boy* and *hypothesis* do, but have only a procedural meaning, which consists of instructions about how to manipulate the conceptual representation of the utterance (cf. Blakemore, 1987, 1992). Words with conceptual meaning contribute to the content of assertions and are analysed as encoding elements of conceptual representations. Words with procedural meaning, on the other hand, encode information about how these representations are to be used in inference, they tell you how to ´take` these representations. In Blakemore's view, DMs do not contribute to the proposition expressed by an utterance or to any other conceptual representation the utterance may communicate; rather they point the hearer to the context in which he is expected to process the utterance and the conclusions he should be drawing from it.

[4] We have checked that there are not any colineality problems among the independent variables introduced in the model.

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