

# **A Cross-Cultural Genre Study on Hedging Devices in Discussion Section of**

## **Applied linguistics Research Articles**

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### **Abstract**

The most significant aspect of scientific discourse is to weigh evidence and draw conclusions from data. Since all the sentences embody the authors' viewpoints (Stubbs, 1986), academic writers need to present their claims cautiously, accurately and modestly to meet the expectations of corresponding discourse community, to gain acceptance for their statements, and to enter a dialogue with their audience accordingly. Hedges can serve as the interactive elements which bridge between text information and author's interpretation. The present study aims to investigate the impact of language/culture on the use of hedging strategies in academic writing of English and Persian Native Speakers in English applied linguistics research articles. To this end 108, applied linguistics research articles written by English and Persian Native Speakers were selected on the basis of stratified sampling randomization. The discussion section of experimental and descriptive research articles were compared for the amounts and types of hedges through chi-square analysis. The findings show that there are significant differences between hedges used by English and Persian speakers of English applied linguistics in the corpus. More specifically, English native speakers were found to use a variety of terms to express tentativeness and their degree of commitment towards their finding. The findings have implications for a number of disciplines, particularly teaching English for Academic/Specific Purposes.

### **Introduction**

While reading a text, successful readers implement top\_down skills to activate their prior knowledge of content and in order to cope with new information they use textual cues (Camiciottoli, 2003). In addition to the interactive process between reader and content, there is another significant type of interaction between reader and writer, which is, called metadiscourse. This type of "dialogue" is defined by Vande Kopple (1997:2) as "discourse that people use not to expand referential material, but to help their readers connect, organize, interpret, evaluate and develop attitudes towards that material." Meta-discourse or (meta-text) can be realized through all kinds of linguistic resources (ranging from affixes to whole sentences).

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In specialized articles written in English, Research Article (RA) is the main channel of scholarly communication wherein “situational appropriateness” has been considered as the “contextual relevance” or “register awareness”. In Swales’ (1990:112) words, “rhetorical awareness” means “being able to guess how referees will react to a particular text”. This lack of awareness, according to (Sionis,1995) is often the main reason for the rejection of scholars’ articles by reviewers when the texts submitted are globally correct in terms of lexis and syntax, but suffers from discontinuity in the “argumentative process”, lack of consistency and lack of familiarity with the discourse conventions of science writing in English. In Kelly and Bazerman’s (2003) words, the forms of expression, invention and knowledge are responsive to the particular argumentative fields of the professions and disciplines. This epistemic activity of researchers is shaped by rhetorical concerns of who is to be convinced, of what, how others respond to novel work, what the organizations of their communicative activity is and what the goals of community cooperation are in the discussion and result section of a RA. In the other words, along the lines of Hyland (1999), RA writers present their findings and seek to establish their importance in RA discussion and result section by resorting to hedging strategies as a major pragmatic feature of effective scientific writing.

### **The Scope of Hedging and Research Article**

Recent trends in the study of written texts reflect a growing interest in interaction between reader and writer. Most studies have focused on analysis of the text product, describing organizational patterning, aspects of clause structure and discourse function in the systemic functional tradition and particular text features such as uses of hedging, modality and reporting verbs. The most important aspects of scientific discourse is to weigh evidence and draw conclusions from data. It is now commonly pointed out that despite the popular belief that scientific texts are neutral accounts of factual information derived from nature, RAs are better regarded as "socially constructed rhetorical artifacts" (Hyland,1998:16). Whereas caution and scientific honesty are normally expected by the scientific community, RA authors may wish to formulate their statements cautiously and by means of items relating to vagueness, uncertainty, or tentativeness referred to as hedges. In so doing, hedges allow writers “to express a perspective on their statements” or "the statements of others, to present unproven claims with caution and to enter a dialogue with their audience”(Hyland,1998:6).

In the other words, hedges can be considered as the interactive elements which serve as a bridge between the proportional information in the text and writer's factual interpretation (Fran & Salager Meyer,1993).Hedging as a linguistic resource facilitates the conveyance of fundamental characteristics of science of doubt and skepticism.

### **The concept of Hedging**

There has been little consensus on what the term hedge denotes (Crompton, 1997). Due to the nature of hedging which represents a form of mitigation between writer and community, Hyland (1998) drawing upon the work of pragmatics, genre analysis, the sociology of scientific knowledge, post-modernism and social constructions states that hedging can be attributed as a category with a large number of attributes: for example, weakening the precision of a statement; signaling uncertainty; claiming precision and etc. Hyland's approach may be described as a sociopragmatic treatment of hedging devices where it is recognized that hedges may be used in various ways, by members of different discourse communities. Thus, hedging constitutes a polypragmatic strategy.

### **Taxonomy of Hedges and Research Articles**

In Hyland's(1998) words hedging devices not only have different semantic interpretations, but also they convey a range of meanings for particular users in particular context. Hyland (1998:77) states that “particular linguistic forms can not automatically be associated with specific interpretation; but one and the same form may be seen to involve various functions. Consequently, a certain degree of indeterminacy of the functions of hedging is to be irresistible and it is viewed as a multi-functional phenomenon”. The main categories of hedges distinguished in the content of RAs by Hyland are provided as below.

#### **1- Content-Oriented Hedges**

These linguistic devices “mitigate the relationship between propositional content and a representation of reality; they hedge the correspondence between what the writer says about the world and what the world is thought to be like” (Hyland, 1996:439, see also 1998:162).

##### ***1.1. Accuracy-oriented hedging***

Hyland (1998) argues that in the context of RAs, these hedges deal with authors' wish to be as precise as possible in cases the propositions put forth and the state of affairs in the world may not be in full correspondence.

1) ... these subjects retained, *approximately* between 43 and 54 %...

### ***1.1.1-Attribute Hedges***

A hedge of this kind can indicate that “results vary from an assumed ideal of how nature behaves and allows a better match with familiar descriptive terms” (Hyland,1998:164).Adverbs or adverbial devices which express precision in terms of degree or frequency are among this hedge type.

### ***1.1.2- Reliability Hedges***

Reliability hedges such as modal auxiliaries, full verbs, modal adverbs, adjectives, and nouns express “a conviction about propositional truth as warranted by deductions from available facts, relying on inference, deduction, or repeated experience. They refer to present states and are usually in the active voice without writer agentivity” (Hyland,1998:167).

2)... I *postulate* that in settings involving friends, relatives and ...

### ***1.2- Writer-Oriented Hedges***

They are viewed as a strategy intended to “shield the writer from the possible consequences of negotiability by limiting personal commitment”(Hyland,1998:170,172). In fact Hyland (1998) states that a central feature of such hedges is the absence of writer agentivity that involves impersonal constructions, passive voice, or other means of avoiding direct reference to the author.

### ***2.Reader-Oriented Hedges***

These hedges deal mostly with the relationship between author and audience, they “confirm the attention writers give to the interactional effects of their statements” and “solicit collusion by addressing the reader as an intelligent colleague capable of participating in the discourse with an open mind”(Hyland, 1996:446).Personal attribution, hypothetical conditions and questions are included in this category.

The significance of hedges becomes more evident as far as academic writing is concerned. Familiarity with these strategies may be a help for non-native writers to overcome the exhaustive norms of being accepted as the members of academic community since publishing a written

academic genre such as RAs demand the authors' demonstration of such familiarity with rhetorical constructions and social understanding of the community.

### **Hedging devices in RAs**

Several articles commenting on the difficulties of writing research papers have shared similar findings: unqualified and direct writing typically distinguishes non-native speakers from their native English speaking counterparts. (Hu et al., 1982; Bloor & Bloor, 1991; Skelton, 1997).

Wishnoff (2000) particular focus on L2 instruction of hedging devices in academic writing revealed a statistically significant increase in the use of hedges in research papers and in the computer mediated discussion by treatment group. Vassileva's (2001) research on degree of commitment and detachment in English, Bulgarian and Bulgarian English RAs in Linguistics showed considerable differences in the overall distribution of hedges and boosters throughout introduction, discussion and conclusion of RAs. Varttala's (2001), investigation of hedges in scientific texts in three different disciplines and RAs based on Hyland's model (1998) showed differences in incidence between the topic areas treated and between two types of discourse, RAs and popular scientific articles. Hyland (2002) explored the use of directives and hedges as their counterpart through an analysis of published articles, textbooks and L2 student essays and through interviews with insider informants on their perceptions and practices. The study revealed that directives are used for very different strategic purposes and indicated considerable variations in the ways they are employed across genres and disciplines.

Hyland (1998) considers lack of materials as one of the main reasons that "second language students find hedging their propositions notoriously problematic" (P.8). Consequently, researchers have found the use of hedging in academic writing as a necessary element to advance linear arguments, to support claims and to avoid being offensive for non-native speakers (Cherry, 1988; Myers, 1989; Swales & Feak, 1994).

To compensate for such shortcomings and awareness raising specially in Iranian ESP/EAP discourse community, the present study addresses the following research questions:

1. Is there any significant difference between types of hedges used in discussion section of EXP and DES RAs written by ENS and PNS in terms of their frequencies?

2. Is there any significant difference among subcategories of hedges used in discussion section of EXP and DES applied linguistics RAs written in English by ENS and PNS in terms of their frequencies?

In the light of the above research questions, the corresponding null hypotheses were formulated.

## **Methodology**

### **Corpus**

Initially, a comprehensive list of different journals published in the field of applied linguistics from 1995-2003 were selected. 14 journals out of this list (8 international and 6 Iranian) were chosen based on their relevance to the readership in ELT, their adopted trend of publication for research design and their reputation. Afterwards, 108 articles (60 from international journals and 48 from Iranian journals) were selected on the basis of stratified sampling randomization. To secure a sufficient amount of data, only articles longer than 3000 words were included. Thus, in RAs with experimental design, the running words in the corpus of ENS consisted 32510 in comparison to PNS corpus with 13681 words. Along the same line, in articles with experimental designs written by English native speakers, the number of words included comprised 33936 and those written by Persian included 26340. In order to identify the design of each article, they were browsed by the researchers and an expert of the field. The Phi coefficient value of .96 which indicates a high inter-coder reliability ensured agreement between the raters. 30 RAs were chosen from each design group. The number of articles written by PNS with experimental research designs restricted to 18 due to unavailability of written articles by PNS with the mentioned design.

The discussion section was chosen for the study since it is the most heavily hedged subgenre due to the kind of information it encompasses (Hill et al. 1982; Swales, 1990). Moreover, according to Hyland (1998) "It is in Discussions that authors make their claims, consider the relevance of results and speculate about what they might mean, going beyond their data to offer the more general interpretation by which they gain their academic credibility. The level of generality, and therefore the density of hedges, is much higher here, as writers explore the ratifications of their results." (P.154)

In Swales' (1990:170) view results and discussion sections are sometimes coalesced, and refer briefly to "additional or substituted sections labeled conclusions, implications or applications and so on". With regard to Swales' elaboration, in this study Discussion section refers to Results, Results and discussions, Conclusions, Summaries, Summaries and implications.

Each hedge was counted and tallied. To establish the reliability on the researcher's identified hedges, an Inter-coder procedure was used. The Phi coefficient value of .94 indicated the high inter-coder reliability for the analysis.

### Procedure

As mentioned previously, a total of 108 RAs with two distinct research designs were selected from among the articles written by two groups (ENS & PNS). The discussion subgenre was analyzed for hedging strategies following Hyland's polypragmatic model (1998).

### Results

In this study the degree to which commitment is employed in English/Persian academic discourse in applied linguistics RAs with two distinct research designs, namely, Experimental (EXP) and Descriptive (DES) is examined. Also, a comparison is made concerning the types and subtypes of hedging devices used in Discussion (D) section of RAs written by two groups: English native speakers and Persian native speakers.

In addressing the first question, the frequency of hedging types were scrutinized in the corpus the overall distribution of which is summarized in table 1.

Table1. Relative frequencies and raw numbers of hedges in D section of EXP and DES RA by ENS&PNS

Hedging main categories	RAs with EXP designs				RAs with DES designs			
	ENS f	ENS %	PNS f	PNS %	ENS f	ENS %	PNS f	PNS %
1.Full verbs	498	28.2	150	24.9	396	26.5	313	32.5
2.Nouns	192	10.9	108	17.9	181	12.1	131	13.6
3.Adjectives	148	8.4	98	16.3	102	6.8	92	9.5
4. Adverbs	330	18.7	75	12.4	266	17.8	136	14.1
5. Modal Auxiliaries	392	22.2	121	20.1	394	26.3	209	21.7
6. Clausal Elements	151	8.5	20	3.3	111	7.4	52	5.4
7. Questions	5	.3	0	0	2	.1	0	0
8. Others	52	2.9	31	5.1	45	3	31	3.2

As it is shown in table 1, out of 8 hedges, 'full verbs' were the most frequent hedge used by both group of writers. However, 'questions' were absent in the corpus of PNS writers. Also, ENS have made more frequent use of 'full verbs', 'modalities' and 'adverbs'. On the other hand, PNS writers

have made more frequent use of ‘nouns’, ‘adjectives’ and ‘other hedges’. The finding is supported by chi-square analysis of hedges provided in tables 2 and 3

Table -2. Chi – square for the frequency of hedges with EXP design written by ENS and PNS

Hedging devices	1	2	3	4	5	6	7	8
ENS	498 28.2	192 10.9	148 8.4	330 18.7	392 22.2	151 8.5	5 .3	52 2.9
PNS	150 24.9	108 17.9	98 16.3	75 12.4	121 20.1	20 3.3	0 0	31 5.1
Chi-square = 82.43			D.F. = 7		Critical chi-square =18.47			

Since the chi-square observed value=82.43 at 7 degrees of freedom in EXP RAs is higher than the critical chi-square, i.e. 18.47, it can be concluded that there is a significant difference between the frequencies of hedges in Discussion section of the corpus.

Table -3. Chi – square for the frequency of hedges with DES design written by ENS and PNS

Hedging devices	1	2	3	4	5	6	7	8
ENS	396 26.5	181 12.1	102 6.8	266 17.8	394 26.3	111 7.4	2 .1	45 3
PNS	313 32.5	131 13.6	92 9.5	136 14.1	209 21.7	52 5.4	0 0	31 3.2
Chi-square = 82.43			D.F. = 7		Critical chi-square =18.47			

Also, since the observed value of chi-square in DES RAs for 28.89 at 7 degrees of freedom exceeds the critical chi-square,i.e.18.47, it is concluded that ENS and PNS have used different kinds of hedges in the corpus of DES RAs Therefore, the difference is significant. Granting Hyland's(1998) model, the main categories among ‘full verbs’, ‘nouns’, ‘adjectives’ and ‘adverbs’ are presented in table 4 in addressing the second research question.

Table4. Incidence of categories of hedges in RAs written by ENS & PNS

	Hedging Subcategories	EXP				DES			
		ENS f	ENS %	PN S f	PNS %	ENS f	ENS %	PN S f	PNS %
Full Verbs	Nonfactive reporting	170	34.1	63	42	177	44.7	173	55.3
	Tentative cognition	233	46.8	75	50	142	35.9	93	29.7
	Tentative linking	95	19.1	12	8	77	19.4	47	15
Nouns	Nonfactive assertive	22	11.5	33	30.6	33	18.2	36	27.5
	Tentative cognition	159	82.8	68	63	128	70.7	93	71
	Tentative likelihood	11	5.7	7	6.5	20	11	2	1.5
Adjectives	Probability	53	35.8	8	8.2	43	42.2	26	28.3
	Indefinite degree	74	50	82	83.7	27	26.5	55	59.8
	Indefinite frequency	21	14.2	8	8.2	32	31.4	11	12
Adverbs	Probability	68	20.6	7	9.3	44	16.5	21	15.4
	Indefinite degree	99	30	20	26.7	62	23.3	56	41.2
	Indefinite frequency	57	17.3	18	24	59	22.2	14	10.3
	Approximative	106	32.1	30	40	101	38	45	33.1

## **1. Full verbs**

The main categories among full verb hedges which are assigned into distinct lexical sets established on grounds of basic meanings are provided below.

### **1.1. Non factive reporting verbs**

This category includes many of the “performative verbs” which can be seen as tentative devices useful in constructing reports of researchers. (Hyland, 1998).

1) We can argue that other family members treated the latter more like equals.

### **1.2. Tentative cognition verbs**

According to Varttala (2001), 'tentative cognition verbs' refer to the mental status or mental processes of those whose views are reported rather than to linguistic activity.

2) I postulate that in settings involving friends, relatives and ...

### **1.3. Tentative linking verbs**

This category express tentativeness concerning either the ideas put forth by the author or those expressed in the sources referred to.

3) It seems that for Swedish families, it is the home environment where...

In sum, ‘tentative cognition verbs’ are the most frequent subcategory but ‘tentative linking verbs’ are the less frequent one in EXP RAs. In DES RAs, ‘non-factive reporting verbs’ are the most frequent subtype and ‘tentative linking verbs’ are the less frequent one used by ENS and PNS.

## **2. Nouns**

### **2.1. Nonfactive assertive nouns**

In RAs with EXP design, 'Suggestion' was the commonest item in PNS corpus followed by 'argument', 'claim', 'frequency' and 'implication, prediction'. In the ENS corpus, 'argument' was the commonest item followed by 'implication, majority, prediction'. However, 'conclusion, prediction and predictability' were used equally by ENS. In RAs with DES design, 'frequency' was the commonest item used by PNS followed by 'claim, argument, implication, suggestion and majority'. ENS have made more frequent use of 'implication' followed by 'claim, suggestion, prediction and proposal'. However, 'Postulation' and 'majority' were used equally.

4) I have then explored the implication of RPQs for understanding ...

## **2.2. Tentative cognition nouns**

'Finding' was the most frequent item used in the corpus of RAs by PNS and ENS.

5)... and of the *assumptions* the model makes about phonological ...

## **2.3. Nouns of tentative likelihood**

The most common item used by ENS in DES RAs was 'tendency'. Besides, PNS had only made the equal use of two items, i.e. 'potential' and 'probability'. In EXP RAs, PNS have made more frequent use of 'trend' whereas ENS enjoyed more frequent and equal use of 'potential'.

6)... there is the need to always allow for the *possibility* of multiple goals in discourse.

In sum, in RAs with EXP and DES designs, 'tentative cognition nouns' were the most frequent subtype of nouns used by both group of writers but 'nouns of tentative likelihood' were the least frequent hedge noun used. Although PNS, have made more frequent use of 'nonfactive assertive nouns', there is more variety in the use of different items by ENS.

## **3. Adjectives**

### **3.1. Probability adjectives**

The commonest item used by ENS was 'possible'. Also, PNS enjoyed more frequent use of 'probable' and 'apparent' equally in the corpus of EXP RAs.

7) A *possible* interpretation of these findings is that there may be ...

### **3.2. Adjectives of indefinite degree**

'Significant' was the commonest item used by both group of writers in the corpus, yet with different frequencies.

8) The reason for the *considerable* difference in vocabulary gain ...

### **3.3. Adjective of indefinite frequency**

In RAs with experimental design, both group of writers, made the more frequent use of 'general'.

9) H\* is lower than *usual* (upstep)

In sum, as it is presented in table 4, RAs with EXP design contained altogether 246 hedging adjectives among which 'adjectives of indefinite degree' were the most frequent items used by both group of writers whereas 'adjectives of indefinite frequency' were the less frequent one. In DES RAs, PNS have made more common use of 'adjectives of indefinite degree' compared to ENS by

whom ‘Probability adjectives’ were used frequently. Besides, ‘adjectives of indefinite frequency’ and ‘adjectives of indefinite degree’ were used less frequently in the corpus. However, although PNS enjoyed more frequent use of ‘indefinite degree adjectives’, the variety of incidence of hedging belonged to ENS. The finding shows that the incidence and variety of hedges in the corpus of RAs written by ENS are more, compared to PNS.

#### **4. Adverbs**

##### ***4.1. Probability adverbs***

In EXP RAs, ENS enjoyed more frequent use of ‘likely’ whereas PNS employed the equal use of ‘few, potentially, presumably and probably’. In RAs with DES design, ‘Likely’ was the commonest item used by both group of writers.

10) Most *probably*, if they had continued listening to lectures ...

##### ***4.2. Adverbs of indefinite degree***

In RAs with EXP design, PNS employed ‘significantly’ more commonly and ENS made equal frequent use of ‘highly’ and ‘relatively’. In RAs with DES design, ‘significantly’ was the most frequent item used by PNS and, ‘highly’ was employed more common in ENS corpus.

11) These results are *somewhat* different from the results obtained ...

##### ***4.3. Adverbs of indefinite frequency***

Through scrutinizing the EXP RAs, ‘often’ was recognized as the more common item employed by ENS and ‘usually’ was deciphered as the more frequent item in PNS corpus.

12) ... cognate learning *usually* involves adapting or adding ...

##### ***4.4. Approximative adverbs***

The commonest item employed by both group of writer in the corpus of study was ‘Some’.

13) ... these subjects retained, *approximately* between 43 and 54 % ...

In sum, the corpus included 405 hedging adverbs in EXP and DES RAs. As table 4 depicts, PNS have made more frequent use of ‘adverb of indefinite degree’. However, considering ENS writers, the more common use of ‘approximative adverbs’ were recognized compared to PNS. In RAs with EXP designs, PNS used less frequent incidence of ‘probability adverbs’ compared to ENS, that the less incidence of ‘adverbs of indefinite degree’ was employed by them. In RAs with DES designs,

the less common device was ‘adverbs of indefinite frequency’ used by PNS and ‘probability adverbs’ was the less common one used by ENS.

## 5. Modal Auxiliaries

Different modal auxiliaries are deemed as hedges in the corpus. PNS have made more frequent use of ‘can’ whereas ‘may’ has been used by ENS more frequently. In the articles with descriptive design, ‘can’ is the most common frequent item used by both group of writers.

14) Finally, it *can* also be speculated that the effect of frequency of occurrence of vocabulary ...

As observed results indicate, the subcategory of hedging devices used by ENS and PNS differs in terms of kind and frequency. ENS have used a variety of terms to express tentativeness and degree of their commitments towards their findings. The larger number of hedging taxonomies in ENS corpus is an evidence for their familiarity with interactiveness feature of applied linguistics RAs.

## Discussion

As previously mentioned, data analysis of discussion section of EXP and DES applied linguistics RAs revealed that there is a difference between the choice of terms used as hedging devices in the articles written by ENS and PNS in terms of their type and frequency. In the corpus under study, Since *full verbs* were the most frequent hedge, they can be considered as the core element of hedging types used in the corpus. However, *questions*, were absent in PNS corpus. ENS writers have used *full verbs*, *adverbs*, *modalities* and *clausals* in EXP RAs more frequently than their PNS counter parts. Moreover, ENS writers in the corpus of RAs with DES design have made more common use of *adverbs*, *modalities*, *clausals* and *questions* respectively compared to PNS. This makes discussion section of ENS writers more in conformity with the rules of discourse community of applied linguistics RAs. As Hinkel’s (1997) work reveals, one reason for different use of hedges by writers from Confucian, Taoist, and Buddhist backgrounds may be linked to the different culturally determined paradigms and frameworks that influence writers’ rhetorical choices. Also, in the lines of Mauranen (1997), the tendency toward using fewer hedges by nonnative speakers might be explained by the observation that nonnative speakers with a lower-level proficiency hedge less than those with a higher level of proficiency. As a result, it can be concluded that omitting some of hedging terms as observed in this study might be the result of any of the above mentioned factors.

To compare the findings of this study with the relevant literature, a reference is made to Ventola and Mauranen (1990) and Clyne (1991).

Clyne (1991) observed that when German scholars produce academic texts in English they tend to hedge their statements far more strongly than native speakers of English, a tendency probably associated with the linguistic convention of the corresponding type of discourse in German. This trend, Clyne stresses, is open to criticism, because texts that are heavily hedged may appear “laymanlike”. In view of the present result, ENS in both corpus of RAs made more frequent use of hedges compared to their counter part which are clearly derived from the native languages and cultures of nonnative speakers of English. Ventola and Mauranen (1990) and Mauranen (1997) found that Finnish speakers of English do not appear to use hedges in the same way as native speakers of English as a result of differences between level of proficiency.

To conclude the comparison between two studies, it can be claimed that the results of the present study correspond to the findings of the mentioned researchers since the subcategory of hedging devices used by ENS and PNS differs in terms of kind and frequency. ENS have used a variety of terms to express tentativeness and degree of their commitments towards their findings. The larger number of hedges in ENS corpus is an evidence for their familiarity with interactiveness feature of applied linguistics RAs. PNS have used a limited variety of terms to express their tentativeness and degree of commitments towards the findings due to their attention to textual rather than interactional aspect of academic writing, making their RAs less interactive compared to ENS corpus.

Any generalization of this research findings to other sections of RAs is to be cautiously provided.

### ***Conclusion***

As pointed out earlier, the chi-square analysis of hedging devices in the corpus revealed that there is a significant difference between the type and the frequency of hedges. That is, although not all the hedging terms proposed by Hyland (1998) appeared in the corpus, the writers tended to use variety of hedges throughout discussion section in their articles. Concerning lexical and non-lexical hedging devices, *Full verbs, Nouns, Adjectives, Adverbs, Modalities, Clausals, Questions* and other types were deciphered. Among the subcategory of *adjectives, approximative adjectives* were absent

in the corpus. Moreover, the most frequent hedging devices used were *full verbs* followed by *modalities*.

Considering the above, it can be concluded that familiarizing and involving students with the rules of academic writing may improve their writing and reading ability and can help them to know what kind of discourse they have to produce and understand in academic settings. Success in academic writing is likely to be a matter of expertise since there are indeed more or less explicit standards of good academic prose to reflect a certain institutionalization of the genre (Duszak, 1994). It is obvious that even native speakers of English are not automatically equipped to adapt their linguistic habits according to hedging “guidelines” of the scientific community whose linguistic conventions they wish to master (Salager-Meyer, 1994). Therefore awareness of subject-specific linguistic features and of the typical discursive practices of the field in question is needed. Moreover by contrasting the various kinds of discourse, learners, could be led to consider not only the frequency and different forms of hedging, but also the various reasons underlying the use (or non-use) of hedges in texts that differ according to topic, sender-audience relationship and the general purpose of language use. Such sensitization would be a useful means of acquainting both native and nonnative speakers of English with the role that hedging can play in academic discourse such as RAs and thus lead toward “eventual membership in a professional discourse community” (Hyland, 1994:244), of helping them see why hedges may be used differently in other fields of expertise, as well as of providing insights for learners as to how to make use of hedges when addressing audiences with a lower level of background knowledge in the field of expertise dealt with. Besides, introducing relatively simple taxonomies of hedging devices might be useful since they provide nonnative speakers of English with basic tools for expressing different degrees of commitments. The pedagogical materials could better assist learners in acquiring information as to how to tint their writing with a degree of hedges appropriate to a given topic, purpose of language and sender-addressee relationships with regard to their effects on rhetorical issues. Thus, a full understanding of hedging includes knowledge concerning its diversity in different kinds of special subject discourse and different cultures.

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