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Faculty of Literature and Foreign Languages

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**A Comparative Study of Discoursal Features in  
Natural Sciences and Applied Linguistics**

A thesis submitted to the Graduate Studies Office in partial  
fulfillment for a Master of Arts degree in ELT

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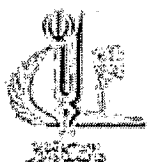
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We hereby recommend that the  
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Dedicated to:

My family, and My Professors.

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## Abstract

Academic surface structures reflect discourse variation and, by inference, discourse structure. This study attempts to explore surface linguistics features by investigating the extent, form and function of intensity markers in academic writing to reveal how different disciplinary and genre contexts influence argument. Based on a corpus of abstract sections in sixty research articles of two fields, that is, TEFL and Plant Cell and Biology articles, each with one discipline, the research has focused on some of the discorsal features writers use to support their claims and establish credibility for their research. This analysis seeks to hypothesize that intensity markers play a major role in articles, but their distribution differs across the two fields. Data is expected to reveal that there is significant difference in terms of frequency of use of intensity markers between above- mentioned disciplines.

The present study provides useful implications in developing ESP materials and writing academic articles via paying conscious attention to intensity markers.

## Contents

Abstract .....	i
Acknowledgments.....	ii
List of Tables .....	iii

### Chapter I: Introduction

1.1. Introduction.....	1
1.2. Statement of the Problem.....	4
1.3. Significance of the Study.....	7
1.4. Research Question and Hypothesis .....	9
1.5. Limitations of the Study .....	11
1.6. Definitions of Important Terms .....	11

### Chapter II: Review of the Literature

2.1. Genre.....	13
2.2. Genre and Discourse Community.....	17
2.3. Genre Analysis.....	19
2.4. Genre and Register.....	22
2.5. Genre-centered Approaches to Writing.....	23
2.6. Genre and Rhetoric .....	24
2.6.1. Contrastive Rhetoric .....	27
2.6.2. Contrastive Rhetoric Research .....	29
2.6.3. Rhetoric and Academic Discourse.....	31
2.7. Academic Discourse.....	33
2.7.1. The Nature of Discourse in Natural Sciences.....	35
2.7.2. The Importance of Academic Writing Analysis. ....	36
2.7.3. Research on Academic articles.....	37

2.8. Evaluation .....	42
2.8.1. Introduction and Background .....	42
2.8.2. Review of Major works in Text Linguistics .....	43
2.8.3. Text and the Transfer of Meaning .....	46
2.8.4. Evaluation in Academic Papers .....	48
2.8.5. Evaluation through Intensity Markers .....	50
<b>Chapter III: Method</b>	
3.1. Introduction.....	58
3.2. Materials .....	58
3.3. Data Analysis .....	61
<b>Chapter IV: Results and Discussion</b>	
4.1. Restatement of the problem .....	62
4.2. Question One .....	64
4.3. Question Two.....	69
4.4. Question Three.....	74
<b>Chapter V: Conclusions and Implications</b>	
5.1. Introduction.....	80
5.2. Discussion of Results .....	80
5.3. Implications for Teaching Writing .....	82
5.4. Implications for Translations .....	84
5.5. Implications for further Research .....	85
<b>References .....</b>	<b>86</b>

## List of Tables

### Pages

1. **Table 1.** Frequency of use of emphasizeers in abstract sections  
of TEFL and plant articles ..... 65
2. **Table 2.** The chi-square result of frequency of use of emphasizeers  
in abstract sections of TEFL and Plant articles..... 65
3. **Table 3.** Frequency of use of amplifiers in abstract sections of  
TEFL and plant articles ..... 69
4. **Table 4.** The chi-square result of frequency of use amplifiers in  
abstract sections TEFL and Plant articles..... 70
5. **Table 5.** Frequency of use of downtowners in abstract sections of  
TEFL and plant articles ..... 74
6. **Table 6.** The chi-square result of frequency of use of downtowners  
in abstract sections of TEFL and Plant articles..... 75



# Chapter One

## Introduction

Language has been studied from different perspectives. Regarding functions of language, various classifications have been presented so far. Yule (1985, p.173) attributes two major functions to language, namely, interactional and transactional functions. Then, he elaborates his idea on language functions in more detail contending that interactional function is meant for the expression of emotions and feelings of the writer while transactional function is for the exchange of information or message. But Yule leaves no room for emotions and feelings in transactional function as he defines it in the framework of a function purely aimed at conveying information of any kind i.e. as a vehicle for the mere exchange of message between a source and a receiver.

A text is not free of all the ideologies and biases; ideologies that can be hidden behind the words are of great interest for critical discourse analyst. But at least the interpersonal function of language, even that of scientific discourse which is somehow free from ideologies, is maintained in order to give producer an opportunity to express his own feelings on the proposition put forth. Interpersonal function as a whole consists of all the functions of a

piece of text that go between the producer and the receiver and maintain the flow of personal thought on the text from the producer's mind into the receiver's mind or feeling itself is deeply rooted in the multi-faceted linguistic and cultural experiences of the producer. Consequently, linguistic background and cultural traditions of EFL writers have a role in influencing the way these writers produce a text. Kaplan (1967, pp. 10-16) introduced contrastive rhetoric as a tool displaying these influences, which are manifested through rhetorical features of written works. Then, he found that students from different native language and cultural backgrounds apply different methods and strategies of rhetoric to propose their ideas and support their arguments.

The rhetorical and generic features of different languages, genres or disciplines are displayed and manifested through some linguistic and discourse devices. A broad category of these devices contains what is titled and known in technical terms as "discourse markers". Discourse markers have been under scrutiny by various scholars time and again, from different angles.

Marandi (2002, p. 38) takes a close look at the results of investigations done on discourse markers. She explores the previous discourse typologies presented by Vande Kopple (1985, pp. 82-93), Crismore et al (1993 pp.371), finally offering her own classification of these markers. Her

typology includes two main subcategories of textual and interpersonal discourse markers. Interpersonal markers are said to include hedges, emphatics, attributers, persona markers, and relational markers, out of which three sub-types will be explored in the present study. Surprisingly, in almost all typologies mentioned, a consistent and fixed placement is found as far as markers of interest for the researcher are concerned. Of course three subtypes will be explored in the present study. Of course there are subtle and trivial differences like ascribing new titles and names to the subcategories or *subtypes*, a point, which does not make much difference in their nature. Marandi contends that students with linguistic and cultural differences use discourse markers in significantly various patterns, while gender differences play no role in the frequency and types of discourse markers used.

Comparing and contrasting discourse markers in different ESP disciplines, promises valid implications for teaching situations, especially in writing courses (Vartalla, 1998, pp. 177-200). This project is an attempt to shed light on the use and meanings of Intensity Markers in academic writings by exploring their occurrence, frequency and meaning in a corpus of research articles from different disciplines.

## 1.2. Statement of the Problem

Obviously one of the major skills in learning any language is writing. Classified as a productive skill by scholars such as Chastain (1988), writing has received enough care and attention from both students and teachers. Therefore, in most cases EFL students generally and ESP students in particular, are weak in writing. The roots and causes of this deficiency in major linguistic skill can be diverse and different, as the solutions and remedies can. In order for any academic skill to be offered as a course, there needs to be a comprehensive analysis and understanding of its initiation, development and implementation process. Thus, it is necessary for the teachers of English writing courses and also for the EFL\ESL students to have practical knowledge of what writing is and how develops as a productive skill. As far as the developmental aspect of writing is concerned, there seems to be a bulk of research and study on the psychological, cognitive, and linguistic processes involved in writing. But one can also look at writing as a whole ready-to-be-used product. Linguistically speaking, what features can this product or piece of written discourse have? Or it might be more logical to ask what features do different writings in different fields and for different purposes have in various disciplines, it can be effective in guiding others in their journey of writing, at least as a kind of

consciousness-raising technique. One step, which can be taken forward in this direction, is genre analysis.

Applying genre analysis, we can see the features of discourse and genre under study, gradually unraveling. This helps students familiarize themselves with different genres because generic structures are prepared ways of responding in specific situations. Also, the contrastive analysis of features of rhetoric as an approach shows how different rhetorical strategies are manipulated in different discourses. One of the different discourses can be academic discourse with its different disciplines and subfields each of which might have its peculiar genre and rhetoric.

Awareness of discourse markers in general and intensity markers in particular leads to some improvements in both reading and writing. Regarding the former skill, Munby's (1978, p.68) Reading Model claims that comprehension is based inter alia, on the recognition and processing of discourse markers. Considering the latter skill, it should be reminded that being persuasive in any kind of discourse is bound to applying a number of strategies one of which can be the tactical and informed use and implementation of those categories of surface linguistic devices i.e. discourse markers and intensity markers by the writer. In order to get a general picture of the pattern of use of intensity markers, one has to do text analyses on different corpora representing different genres.

Hunston (1994, pp. 44-123) has conducted analyses regarding the frequency and quality of use of evaluation devices or intensity markers in narrative texts. On the other hand, since academic texts are more involved in persuasions, arguments and claims, it seems that there will remain a lacuna as far as there is no clear picture of the pattern of use of intensity markers in academic genre. This gap will prohibit taking steps towards improving writing, and using intensity markers as an argumentative and persuasive skill.

Academic writing, in its own type, is a distinctive genre, which resorts to specific rhetorical tricks and subtleties in order to carry out its foremost and genuine mission, which is persuasion. Therefore, academic writing, by nature, is persuasive and academic texts depict the characteristics of underlying community via the use of linguistic and discourse devices such as discourse markers or discourse (Hyland, 1999, pp. 99-121).

### **1.3. Significance of the Study**

Scientific discourse in academic disciplines plays a vital role in making readers shape their attitudes and stances towards a particular claim or proposition offered in a scientific text.

Academic papers clearly have, as part of their generic purpose, the goal of informing others of findings and theoretical conclusion. The rhetorical persuasive dimension, however, is also present and it is interestingly seen in the differentiation of the functions of text sections in conventional reports of empirical research. Introduction and discussion sections in such reports are the most obviously rhetorical ones, because these need to justify the topic (introduction) and the results (discussion). The reader needs to be persuaded, after reading, that the results and conclusions are valid. The fact that even the most conventional empirical research reports have introduction and discussion sections shows that rhetoric is necessary to scientific discourse. If the purpose were really to inform, then only the descriptive sections, those dealing with, methods and result, would be needed, and perhaps if the title were not informative enough possibly also a sentence stating the purpose of research would be enough. These features of research papers regarding generic and rhetorical considerations are nowadays firm in minds of the scientists and present themselves as conventions of writing in

academic research setting. Bearing these conventions in mind as an aspect of academic writing for the EFL and ESL students to be heedful of, one should realize the writing problems, which may pop up as a result of linguistic differences.

Although some students, in their L1, are quite literate and skillful writing-wise, Kaplan (1984, pp. 38-49) believes that a good writer in native language is not necessarily a good writer in foreign language, too. The other source of problem is students' lack of knowledge regarding rhetorical conventions. Consequently in their writings, these students produce a sort of writer-based prose type composition in which propositional content is not effectively conveyed. Furthermore the overall quality of their texts is lowered severely (cheng & Steffenson, 1996, pp. 144-181).

The result of the analysis of these discourse markers will increase our understanding of the ways different disciplines use language to induct students, and will have practical benefits for students who rely on set texts as sources of knowledge and models of appropriate forms.

Therefore, it is necessary to do some research which can address the need for better description of academic genres and the disciplinary differences between them.

Investigations and studies of this kind can identify how texts produced



by members of different disciplines are influenced by the social practices, ideals and ways of thinking of those disciplines, focusing on the role which contextual understanding plays in language choice and variability. They offer a contrastive text linguistic analysis of interactional and social features of research articles written by academics in different fields. Small corpora can be compiled in written form to analyze surface features in order to determine their particular meanings and rhetorical functions for particular academic readers.

Such research projects will not only increase our understanding of both academic discourse communities and the language they use, but will also have practical benefits for non-native speaking academics seeking to publish in scholarly English language journals and win an audience internationally, or for the acculturation of new members into these communities.

Humanistic discourse is largely the rhetoric of reception, interpretation, and evaluation, argumentative topics and structures commonly associated with classical legal and ceremonial rhetoric. So, they can be claimed, to be following two distinctive rhetorical traditions, since they are, in one way or another, germane to NS (natural sciences) and TEFL (applied linguistics) discourses consecutively. While engineering discourse is grounded in the

production of artifacts, humanistic discourse is largely based on their consumption of textual objects.

Specifically, the present research intends to provide a quantitative account of the ways intensity markers are used in academic discourse, and examine and account for their variation in their frequency of use in the abstract section of journal articles.

#### **1.4. Research Question and Hypothesis**

Considering the somehow murky and fuzzy state of affairs in defining and demarcating generic and rhetorical borders between academic discourse of Natural Sciences and Applied Linguistics in their research settings, this work is an attempt to answer following questions:

1. Is there any statistically significant difference between Natural Science (NS) and Applied Linguistics in terms of frequency of use of intensity markers in their abstract sections to achieve a communicative goal?

In order to answer the question posed, this null hypothesis was put forth:

- 1-There is no statistically significant difference between Natural Sciences (NS) and Applied Linguistics (TEFL) research articles in terms of frequency of use of intensity markers in their abstract sections to achieve a communicative goal.

## **1.5. Limitations of the Study**

As it was pointed out before, there are different approaches to the categorization and classification of discourse markers and intensity markers. The line followed throughout this project is that of Quirk et al. (1985, pp. 580-610) which gives three distinctive categories to intensity markers, to be elaborated in next chapter.

Also, there are different definitions and defining criteria for technical terms like genre, rhetoric, etc. In this case, too, in order to bridge this gap and overcome this shortcoming, first a clear comprehensive and inclusive definition of those terms is tried to be stuck to. Secondly, as here we introduce a set of corpus section criteria considering genre, ESP, and text type, this project tries to meet them. Genre is meant to be research articles; i.e. research articles are supposed to belong to the same genre. Regarding ESP, the subject matter is limited to Natural Sciences and Applied Linguistics. And concerning text type, the project is confined to the abstract section of research articles as an academic genre.

## **1.6. Definitions of Important Terms**

*1. Genre:* a means of achieving a communicative goal that has evolved in response to particular rhetorical needs and that will change and evolve in response to changes in those needs (Dudly-Evans, 1994, pp. 219-229).

2. *Rhetoric*: a process that writer uses to produce a desired piece of text.

This process is basically one of choosing and organizing information for a specific set of purposes and specific set of readers (Trimble, 1985, p. 89).

3. *Academic discourse*: presenting any claim, putting forth any proposition, and arguing any point in academic circles and setting conforms to some generic, rhetorical and above all, linguistic rules and conventions that are referred to as academic discourse.

4. *Intensity markers*: a category of discourse markers that is used to display the writers' degree of certainty of a claim, proposition, etc. (Quirk et al, 1985, pp.585-610).