



## **Acknowledgments**

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<p><b>Abstract</b></p> <p>In written mode of language, metadiscourse markers are used commonly to help writers in general and academic writers in particular to produce coherent and professional texts. The purpose of the present study was to compare introduction sections of applied linguistics and physics articles regarding their use of interactive and interactional metadiscourse markers based on the model proposed by Hyland (2005). In order to carry out this study, 50 articles from each of the disciplines were selected whose writers were native Farsi speakers. Both qualitative and quantitative approaches to data analysis were employed in the present study. It was found that applied linguistics used significantly more stances of metadiscourse markers in general and interactive metadiscourse in particular. In the case of interactive metadiscourse subcategories, applied linguistics articles used more code glosses, physics articles employed more evidentials and they were approximately the same in using frame markers. Neither of the disciplines differed significantly from one another in the case of interactional metadiscourse. No significant difference was found for interactional metadiscourse in general, but it was found that applied linguistics articles used significantly more boosters compared to the physics articles, physics articles employed more hedges and both of the groups were approximately the same in using self-mentions. The findings of the present study are useful to syllabus designers in emphasizing the critical importance of allocating some sections to metadiscourse markers in their textbooks.</p>	

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**Chapter One:**  
**Introduction**

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## 1.1. Introduction

Language is a complex, systematic, and rule-governed phenomenon that is used for establishing communication among creatures and most vividly among human beings. Matthews (1997) considers language as having two modes of vocal and written in normal use and Lyons (1981) adds other manifestations of language such as "sign language" and "body language" even if they are not languages in the common understanding of the word. Writing is the mostly ignored language skill from among the four main skills and it has been totally forgotten in teaching process or it has been delayed till the advanced levels in educational life of English language learners. Writing extends beyond the basic syntactic skills of punctuation and grammar. Yet, as Marandi (2003) points out, for most of the learners in university level writing is a precious tool making them capable of sharing their scientific experience and enjoying other scholars' findings. Most of the international scientific journals are being published in English and it can be said that English is acting as the *lingua franca*. As most of the academic writers' scientific publications are reviewed by journal editors and frequently are asked for revisions grammatically, focus on teaching grammar or, as Faghih and Rahimpour (2009) believe, conscious awareness of writing rules is central for effective academic written discourse.

## 1.2. Background to the Study

Written form of language has been produced for a bunch of various purposes and has given birth to *English for Specific Purposes* or *ESP*. Silva and Mastuda (2002) emphasize the critical role of ESP in bringing the reader to the focus of attention. One of the branches of ESP is English for Academic Purposes or *EAP* which focuses on the reader as its correspondent and has been dealt with as a text type or genre defined by Swales as a class of communicative events. More recently this EAP movement in L2 writing has brought genre analysis into focus. Swales (1990) defines genre as a class of communicative events. In academic context, where the main objective is to share scientific findings, and as Hyland & Hamp-Lyons (2002) confirm, academic discourse

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genres have received enough attention in EAP courses. The main objectives have been to help out learners in being aware of and learning patterns of language in various academic and professional contexts.

Different text types have been proposed and produced as sub-branches or more specific types of academic genres. In academic setting summaries, essay examinations, research papers, thesis and dissertations, and scientific papers are the most prevalent ones and as Dimitra (2007) believes, research articles and theses comprise two key genres employed by scientific communities for the spreading and ratification of knowledge. Analyzing research articles regarding their discoursal features have been of high interest to researchers and this fact highlights the need for being a skillful academic writer in every field of science. Awareness of how texts are organized in English is the requirement for enjoying the advantages and the prestige of sharing knowledge in journals, conferences, and seminars. The need of knowing English and being familiar with organizational and rhetorical patterns of research papers in English papers arises from the fact that most of the scholarly journals are published in English and students must have knowledge of English texts in order to organize themselves informationally, rhetorically, and stylistically.

According to Hyland and Tse (2004), using metadiscourse element or sources is one way through which writers can organize their texts, engage readers and show their attitudes to both their material and their audience. Writing involves a kind of social interaction and communicative engagement between the reader and the writer and the writer of an academic paper makes use of metadiscourse markers in order to establish social interactions and keep the reader involved in the process of communication in their discourse communities. Writers consciously or unconsciously make use of discursive features in their written publications and this necessitates some knowledge about the way metadiscursive elements are employed in academic discourse genres to help learners in their academic activities and also help researchers of different discipline to better interact with their readers. Metadiscourse has been defined and elaborated differently at different

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times and by different scholars. Some define metadiscourse resources *textual devices* used to connect different parts of a text (Bunton, 1999; Mauranen, 1993; Valero Garces, 1996); however, Hyland (1999) counts two main functions of *textual and interpersonal*. Besides the fact Metadiscourse elements are used in organizing the discourse by pointing out topic shifts, signaling sequences, cross-referring, and connecting ideas, according to Hyland and Tse (2004) they give the writers' attitudes to it with hedges, boosters, self-reference. So, metadiscourse elements facilitate communication by establishing the writer's stance and encouraging relationship with the audience. Metadiscourse plays a fundamental role in organizing discourse and engaging audience, but their use across different fields of science (applied linguistics and physics in the present study) has not been explored to the time of doing this study.

### 1.3. Statement of the Problem

The existence and expression of metadiscourse is an important aspect of persuasive and successful written discourse. The issue of metadiscourse has been the incentive for numerous research projects, but there are few studies covering a comparative study of different academic disciplines related to science and soft sciences as physics and applied linguistics. Investigation and analysis of various papers and articles indicates that the variation in scientific field causes differences in employing metadiscourse markers in the corresponding research articles. The present study aims at examining the potential differences in occurrence of metadiscourse markers in two scientific fields of applied linguistics and physics via analyzing the metadiscourse markers across Introduction sections of the research articles written by native Farsi speaking authors. Based on the analyses of these research articles the overall and categorical distribution of interactive (Code glosses, Evidentials, and Frame markers) and interactional (Hedges, Boosters, and Self mentions) metadiscourse markers are computed to determine the similarities and differences between academic authors from different discipline in the use of metadiscourse markers in their research articles.

#### 1.4. Purpose of the study

The differences in using metadiscourse markers in various disciplines and fields of study remain an interesting research area since there can always be attention-grabbing findings.

Different disciplines require different use of language element to attain their goal of information transfer or knowledge sharing. Physics and applied linguistics are different in nature and scope as one deals with studies in language and human and the other tries to account for physical phenomena and materials. Although the corpora are from different fields, it cannot be the only the differences expected. Among academic written genres research articles in many disciplines can be considered as a medium through which knowledge building and dissemination to a large extent take place. As English is the international language for academic and scientific communication and scientific journals and publications are mostly published in English, learning how to be a skillful writer in every discipline is becoming more and more essential and vital.

Both native and non-native speakers of English should realize the rhetorical organization conventionally used in their field of academic interest to facilitate the reading and/or writing of scientific research articles. It can easily be understood that differences in academic fields affect the way and the degree of using metadiscourse markers in the academic discourse genres. Marandi (2003) states that English learners receiving instruction in writing should know how and when to use these resources and how written texts are different from each other in the type and frequency of metadiscourse in particular genre in order to develop a good command of that language and function properly in the required contexts. According to the components suggested for interactive metadiscourse by Hyland (2005a), teaching interactive metadiscourse to the learners enable them to write more cohesively and coherently and read and understand the propositions more efficiently. On the other hand, having knowledge of interactional metadiscourse enables them to improve their interaction with their readers and make their

message understood by their readers in a better way.

The importance of being aware of using metadiscourse markers in composing scientific articles and papers is demonstrated, but it is worth mentioning that the way metadiscourse resources have been employed in two basically different disciplines of applied linguistics (dealing mainly with human language learning matters) and physics (focusing on physical and non-human matters) is not explored so far. Consequently, the present thesis tries to examine if there are any statistically significant differences in the use of metadiscourse markers in articles written by native Farsi speakers in the field of applied linguistics and physics.

### **1.5. Research Question and Research Hypotheses**

The purpose of this thesis was to investigate the occurrence of metadiscourse markers in articles written by Iranian academic authors' research articles in applied linguistics vs. physics. Based on the mentioned purpose for the study the following research questions and hypotheses were formulated:

#### **Research Question**

Are there any statistically significant differences in occurrence of metadiscourse markers in articles written by Iranian academic authors' research articles in applied linguistics vs. physics?

#### **Research Hypotheses**

##### **Null Hypothesis**

There are no statistically significant differences in occurrence of metadiscourse markers in articles written by Iranian academic authors' research articles in applied linguistics vs. physics.

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## Alternative Hypothesis

There are statistically significant differences in occurrence of metadiscourse markers in articles written by Iranian academic authors' research articles in applied linguistics vs. physics.

### 1.6. Definition of Key Terms

In the present study and in every other research there are some important words and terms used repeatedly that should be defined in order to prevent misunderstandings and to make the ideas crystal clear. In this section these terms are clarified, but it is worth mentioning that for some of them there is no single definition.

*Research articles:* Genre is a name for a type of text or discourse designed to achieve a set of communicative purposes and following this definition, the research article is a genre. Research articles constitute a “key genre used by scientific communities for the dissemination and ratification of knowledge” (Koutsantoni, 2006, p.19).

*Metadiscourse:* Metadiscourse is a “self –reflective linguistic material referring to the evolving text and to the writer and imagined reader of that text. It is based on a view of writing as social and communicative engagement between writer and reader, that focuses our attention on the ways writers project themselves into their discourse to signal their attitude towards both the content and the audience of the text”(Hyland & Tse, 2004, p. 156). In other words, metadiscourse is used to negotiate interactional meaning in a text, enabling writers to express their viewpoint, and engage with their audience as member of a particular discourse community.

*Interactive Metadiscourse:* Hyland (2005a) suggests two functions for metadiscourse. The first one is Interactive metadiscourse which is used in organizing the propositional information of text and making the text coherent and convincing to its community. The interactive metadiscourse markers are employed by authors in order to compose a text

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meeting reader needs and they are based on writers' opinion of the readers' assumed comprehension abilities, understanding of related texts and need for guidance as well as the relationship between writer and reader. According to Hyland (2005a), Interactive metadiscourse consists of five sub-categories as follows: *Transition markers, Frame markers, Endophoric markers, Evidentials, and code glosses.*

*Interactional metadiscourse:* according to Hyland (1998), Interactional metadiscourse indicates the writers' standpoint regarding both propositional meaning and readers and it results from writer-reader relationship. Interactional metadiscourse refers to the ways by which writers convey their personality, credibility, reader sensitivity, and relationship to the message. Authors use interactive metadiscourse markers to project themselves and also inform the readers about their personal evolution and interpretation of the texts. According to Hyland (2005b) interactive metadiscourse markers allow writers to interact well with the readers to create convincing arguments. Hyland (2005a) assumes the five sub-categories of interactive metadiscourse as follows: *Attitudemarkers, Hedges, Boosters, Self mentions, and Engagement markers.*

### **1.7. The Organization of the Study**

In addition to *introduction* chapter that was the first chapter; this thesis consists of four chapters as follows:

#### **Chapter Two**

The second chapter in this research is *review of the related literature* intended to do the following:

1. Elaborates in details the different views on metadiscourse
2. Discusses the previous related research
3. Defines the metadiscourse functions assumed in the present thesis



### Chapter Three

Chapter three is the methodology chapter of the thesis and covers the following purposes:

1. Refers to the research hypothesis and research questions.
2. Discusses the variables involved in this study and the research design.
3. The corpora analyzed in the present study.
4. Details the nature of the data and the methods for data analysis.

### Chapter Four

This chapter is *data analysis* chapter including the following:

1. Presents the results of the data analysis in forms of figures and tables.
2. Interprets the tables and figures to make the findings and purpose of the study explicable.

### Chapter Five

Chapter five is *discussion and conclusions* chapter which does the following:

1. Discusses the results of the study.
2. Talks about pedagogical implication(s) of the study.
3. Counts the limitations that the study has faced.
4. Offers possible suggestions and recommendations for future research.

**Chapter Two:**  
**Review of the**  
**Related Literature**

## 2.1. Introduction

As former language learners and present language teachers we all have witnessed and felt that among the four main language skills writing has received the least attention. Generally speaking, writing has been taught and emphasized in the higher levels of language education and in the case it has been focused on it has not been worked on efficiently. Despite this fact, writing is a vital language skill for people who want to pursue their education and they also need to be good writers if they want to communicate their finding internationally. A high percentage of scientific journals in the world is published in English. This has made English language a versatile language across the world and consequently there is an ever-growing need to learn English in general and writing in English in particular for academic community. There have been plenty of methods and ways proposed by researchers to improve writing ability of language learners. According to Intaraprawat and Steffensen (1995) one way to improve writing skill in language learners is to make them aware of textual (and also interpersonal) metadiscourse (they will be detailed later in this chapter). Discourse markers have various functions and applications. They can be benefitted by the writers in showing their standpoint toward an idea, they can be used to involve and interest the corresponding reader, show the relations inside the text and finally lead to a consistent and persuasive text.

As prefaced above, the present chapter highlights some of the concepts and ideas related to the field of metadiscourse and concentrates on classifications and taxonomies asserted by the scholars in different times and from different perspectives. Finally some of the studies and research projects carried out in the related domain are discussed.

## 2.2. Academic Writing

Writing is one of the four main language skills (listening, reading, **writing**, and speaking) and it is essential in many situations throughout our life as we may want to

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keep our personal records in a diary to enjoy reading it in the later times or we may well need to write emails or scientific papers. A written text may include personal ideas or feelings and stories. In personal writing we may put in words our personal reflections, stories, judgments, and evaluations (Bowker, 2007). Another writing type (which is the center of attention in the present study) is academic writing that is different from the previous type in some features.

Academic writing from traditional perspective is depicted as being objective and directly related to external realities and consequently, according to Hyland and Tse (2004), learners were instructed to express isolated description of facts in absence of their personal attitudes and social purposes. The main goal in writing any text and especially texts of academic importance is to convey the knowledge or information and according to traditional academic writing, researchers ought to stick to an impersonal and objective style when reporting their studies. A number of researchers were (e.g. Swales, 1990; Tang & John, 1999; Hyland, 2001; Vassileva, 2001; Harwood, 2005) against this common view of academic writing and some others believed that interaction in written texts can be accomplished in a way similar to spoken text with different impacts because of different medium of interaction (i.e. spoken text). This view and the criticism against traditional vision of academic writing led to a new trend looking at academic writing as a social engagement entailing interaction between writers and readers. The growth in studies on academic written discourse in general and English for academic purposes in particular resulted in increased research projects probing what language and communication tools the researchers and students must acquire in the way of becoming socialized into research community. Hyland (2004) assumes the process of entering into these societies contingent on awareness of, and competence in the writing practice of the relevant discourse community. In every scientific and academic field, the disciplinary culture the scholars and researchers have been socialized into through their academic studies controls the contributions and the way researchers share their findings with the research community they are a part of. To maintain the interaction between writer and reader in academic