

# A Comparative Study of Intensity Markers in Engineering and Applied Linguistics

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## Abstract

Writers use intensity markers as one of strategies in order to negotiate their claims and to make their writings persuasive and credible. This study is an attempt to examine the type, frequency, and functions of intensity markers in research articles of two disciplines of Applied Linguistics and Electrical Engineering by analyzing surface linguistic features. Based on a corpus of forty research articles, the overall rhetorical and categorical distribution of intensity markers were calculated across two rhetorical sections of Abstract and Conclusion of research articles. The results indicates that the overall distribution of intensity markers in Applied Linguistics articles is higher than Electrical Engineering ones. These findings may have some implications for the teaching of academic writing to EFL students.

**Keywords:** intensity markers, academic writing, research articles

## 1. Introduction

Language can be studied from different perspectives. Although several classifications of language functions were proposed, Halliday (1985) considered three main functions of language. Ideational function means language functioning as a means of conveying and interpreting experience of the world. According to Halliday (1983), the ideational function refers to what is called “cognitive meaning” or propositional content of sentence. Interpersonal function means language functioning as an expression of one’s attitude and influence upon the attitude and behavior of the hearer. The last function is textual function which means language functioning as means of constructing a text. The textual function refers to the way in which the grammatical and intonational structure of sentences or utterances relate them to one another in continuous text and to the situation in which they are used.

Vande Kopple (1985) suggests that interpersonal and textual meanings are conveyed through metadiscourse. Interpersonal metadiscourse “helps writers express their personalities, their evaluations of and attitudes toward ideational material, shows what role in the communication situation they are choosing, and indicates how they hope readers will respond to the ideational material” (Vande Kopple 2002, pp. 2-3). Hyland (2005) argues that metadiscourse is based on a view of writing as social engagement in which writers project themselves into their discourse to signal their attitudes and commitments.

Crismore, Markkanen and Steffnsen (1993) state that mtadiscourses are linguistic elements that explicitly serve the interpersonal and textual functions of language. Intensity markers are one of metadiscourses by which discourse encode subjectively and realizes its interpersonal functions. The writer or speaker’s stance towards the information presented and communicative value of the discourse are displayed through the use of intensity markers. But the fact is that as Kaplan (1976) found the use of metadiscourses in general and intensity markers in particular in writing differ from one language and culture to another language and culture. For example, Abdollahzadeh (2003) investigated whether there was any significant difference between Iranian and English academic writers in their use of interpersonal metadiscourse and its relevant subcategories in the discussion and conclusion sections of ELT papers. The results showed a statistically significant difference native and non-native writers in their use of interpersonal metadiscourse. Anglo-American writers used more (56%). Rahimpour (2006) also focused on metadiscourse use in the discussion sections of 90 English and Persian Applied Linguistics research articles. Native speakers of English used significantly more textual metadiscourse than Iranian writers did. Research has shown that the conventions followed in the use of discourse markers vary in different culture (Abdollahzadeh 2003).

Moreover, the use of metadiscourses in general and intensity markers in particular vary in different texts. Texts especially academic texts are more involved in persuasion and argument. Being persuasive in any text depends on using different strategies one of which can be the use of metadiscourses and intensity markers by the writer. In order to know how intensity markers are used, one has to do genre analysis. Research articles are one of the academic genres that have been studied by discourse analysts.

Abdi (2000) examined interpersonal metadiscourse following Vande Kopple (1985) in the discussion sections of research articles in English from social science and natural science published in 1999. He found that hedges were used almost as frequently as emphatics and emphatics were used to reveal limitations and to express humility. Abdollahzadeh (2001) surveyed introduction sections of research articles of Applied Linguistics papers by Iranian and English academic writers and found that Anglo-Americans used significantly more illocution markers and code glosses than Iranian. Beigmoammadi (2003) examined the extent to which the use of intensity markers varies across three domains of hard sciences, social sciences and TEFL. He applied the Quirk et al. (1985) classification of intensity markers to explore introduction section of research articles. He found that social science writers used twice as many intensity markers as hard science writers. Shiri maslaki (2007) also employed the Quirk et al. (1985) classification of intensity markers to examine abstract sections of research articles of TEFL and Plant Cell Biology. He found that there was no significant difference between Plant Cell Biology and TEFL articles in terms of frequency of use of emphatics but Plant Cell Biology articles used more amplifiers and downtoners than TEFL articles.

Despite these and other studies, there is still the need to do studies about the use of intensity markers in the research articles of other disciplines. So this study tries to reveal the extent, form and functions of intensity markers in the Abstract and Conclusion sections of two disciplines of Applied Linguistics and Electrical Engineering. To carry out the study the Quirk et al. (1985) model of intensity markers will be followed. This model classifies intensity markers into three classes of emphasizeers, amplifiers and downtoners. Emphasizers include *actually, certainly, clearly, definitely, indeed, obviously, plainly, really, surely, for certain, for sure, of course, frankly, honestly, literally, simply, fairly, and just*. Amplifiers can be divided into maximizers and boosters. Maximizers include *absolutely, altogether, completely, entirely, extremely, fully, perfectly, quite, thoroughly, totally, utterly, in all respects, and most*. Boosters include *badly, bitterly, deeply, enormously, far, greatly, heartily, highly, intensely, much, severely, so, strongly, terribly, violently, well, a great deal, a good deal, a lot, exclamatory how, and the intensifying use of more*. Downtoners are classified into approximators, compromisers, diminishers, and minimizers. Approximators are *almost, nearly, practically, virtually, as good as, and all but*. Compromisers are *kind of, sort of, quite, rather, enough, sufficiently, and more or less*. Diminishers include *mildly, partially, partly, quite, slightly, somewhat, in part, in some respects, to some extent, a bit, a little, least of all, only, merely, simply, just, and but*. Minimizers are *barely, hardly, little, scarcely, in the least, in the slightest, at all, and a bit*. The main research question addressed in this study was:

*Is there difference between Applied Linguistics and Electrical Engineering research articles in the use of intensity markers across their Abstract and Conclusion sections?*

This research question gave way to the following null hypothesis:

There is difference between Applied Linguistics and Electrical Engineering research articles in the use of intensity markers across their Abstract and Conclusion sections.

## 2. Method

### 2.1 Data for the Study

The data for this study consists of forty research articles, twenty research articles belonging to Applied Linguistics (AL henceforth) and twenty research articles belonging to Electrical Engineering (EE henceforth). These two disciplines were selected as representatives of two broad disciplines of Engineering and Social Sciences. Research articles were drawn from the leading journals of Applied Linguistics and Electrical Engineering published between 2006-2011. This study explored Abstract and Conclusion sections of research articles.

### 2.2 Procedure of Data Analysis

The main aim of this study is to examine the occurrence of intensity markers in two disciplines of Applied Linguistics and Electrical Engineering across two rhetorical sections of Abstract and Conclusion of research articles. In order to carry out the analysis, two rhetorical sections of forty research articles consisting of 9975 words were analyzed. To determine the frequency of intensity markers, Quirk et al. (1985) model of intensity marker was used. This model classifies the intensity markers into three classes of emphasizeers, amplifiers and downtoners. The articles were then examined to determine the frequency of intensity markers. Since the size of research articles in each discipline and across two rhetorical sections varied, it is decided to calculate the frequency of intensity markers per

1,000 words. Their percentage was also computed in each discipline. To carry out the analysis, first text analysis program, Linguistic Inquiry and Word Count (LIWC) which allowed us to perform an extensive linguistic analysis on each individual text. Then manual analysis was performed in order to make sure whether words identified as emphasizeers, amplifiers, and downtoners really function the same or not.

### 2.3 Rhetorical Distribution

The frequency of intensity markers was calculated in two rhetorical sections of Applied Linguistics and Electrical Engineering research articles: Abstract and Conclusion. The results of this analysis are given through table 1 and table 2 in the appendix. Table 1 shows the total number of words, the total frequency of intensity markers, and their frequency in two sections of Applied Linguistics research articles. It represents that the highest incidence of intensity markers is in the Conclusion section (44.66 per 1,000 words).

Table 1. Frequency of intensity markers across two rhetorical sections of Applied Linguistics(AL) research articles

Total words	Abstract	Conclusion
	1919	3157
Total devices	48	141
F per 1,000	25.01	44.66

Table 2 represents the distribution of intensity markers in two rhetorical sections of Electrical Engineering research articles. According to this table, the Conclusion section shows the highest incidence of intensity markers (25.95 per 1,000 words). Boosters and diminishers are used more frequently in the Conclusion section than in the Abstract section.

Table 2. Frequency of intensity markers across two rhetorical sections of Electrical Engineering (EE) research articles

Total words	Abstract	Conclusion
	2164	2735
Total devices	38	71
F per 1,000	17.56	25.95

In both EE and AL research articles the Conclusion section contained more intensity markers than Abstract section. Different purposes of different rhetorical sections of a research article cause various use of intensity markers. Brown (1988, cited in Farrokhi et al., 2008) argues that summarizing the article is the main purpose of an Abstract. The problem under the study, the methodology of the study, the findings of the study, and the conclusions reached by the researcher are included in the Abstract. Therefore, the researcher may use intensity markers in writing the Abstract.

“In the Conclusion, the authors commonly comment on the information presented in the articles, summarizes the results and put forward claims about the future events”. Thus, the high incidence of intensity markers may be due to this function of Conclusion section.

### 2.4 Categorical Distribution

The frequency of intensity markers in each category per 1,000 words and their percentage were computed in each discipline in order to find out similarities or differences in the distribution of seven categories of intensity markers in AL and EE research articles. The results of this analysis are given through table 3 and table 4 in the appendix. Table 3 shows the distribution of seven categories of intensity markers in AL research articles. According to this table, boosters (39.68%) and diminishers (26.98%) are the mostly used categories of intensity markers in AL research articles.

Table 3. Distribution of different categories of intensity markers in Applied Linguistics(AL) research articles

Category	F Per 1,000 W	Percent	Raw Number
Emphasizers	1.77	4.76	9
Maximizers	5.31	14.28	27
Boosters	14.77	39.68	75
Approximators	0.59	1.58	3
Compromisers	2.95	7.93	15
Diminishers	10.04	26.98	51
Minimizers	1.77	4.76	9
Total	37.2	100	189

Table 4 shows the distribution of seven categories of intensity markers in EE research articles. According to this table, boosters (57.79%) and diminishers (16.51%) are the mostly used categories of intensity markers in EE research articles.

Table 4. Distribution of different categories of intensity markers in Electrical Engineering (EE) research articles

Category	F Per 1,000 W	Percent	Raw Number
Emphasizers	0.61	2.75	3
Maximizers	1.22	5.50	6
Boosters	12.85	57.79	63
Approximators	0.40	1.83	2
Compromisers	3.06	13.76	15
Diminishers	3.67	16.51	18
Minimizers	0.40	1.83	2
Total	22.21	100	109

There is a broad agreement in the use of boosters and diminishers in both disciplines but their incidence is high in AL research articles. This finding is consistent with findings of Beighmohammadi (2003) on intensity markers across three domains of hard sciences, social sciences and TEFL. He argued that social science writers depend more on discursive and rhetorical strategies in presenting their findings rather than on the mere reporting of facts.

### 3. Discussion

The intensity markers are one of the ways the writers use as a means of convincing the readers to accept their claims. The research articles of two disciplines of AL and EE are studied. Although there is not significant differences between AL and EE articles in terms of frequency of use of emphasizers, there are significant differences between these disciplines regarding the frequency of use of amplifiers and downtoners. In other words the number of use of amplifiers and downtoners in AL research articles is higher than that of EE articles. Writers use amplifiers as a means of persuasion intended to project a high degree of the writer's conviction, sincerity and truthfulness (Hinkel, 1999; Maynard, 1997). Thus, their higher use in AL articles shows this point. Downtoners used in AL indicates that the writers tend to be exact in expressing findings. The writers use more downtoners to express their results more cautiously.

### 4. Conclusion

The choice of metadiscourses in general and intensity markers in particular depends on the overall structure of the discourse, communicative purpose and the level of universality of our claims as writers (Salager-Meyer, 1994). Writers not only produce texts, they but also try to persuade and convince readers to accept their claims. However, we need to increase our knowledge of the frequency of the use of each category of intensity markers in different genres, disciplines, text types and skills among native and non-native writers or speakers in order to provide a pedagogical theory of intensity markers.

Intensity markers are strategies that writers use in order to negotiate their claims and to make their writing

persuasive and credible. The use of intensity markers in academic writing is controlled by the norms of the particular disciplines. By analyzing surface linguistic features of discourses and by comparative study across different disciplines we can get familiar with these features of academic discourse. Making students aware of these rhetorical strategies helps them observe and apply these features in their writing. Therefore, they appear as a member of a specific discourse community. Thus, writers must employ rhetorical strategies relevant to the specific disciplines in order to present their findings persuasively and credibly. As a result special attention should be devoted to the teaching of these rhetorical strategies to foreign language learners.

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