

An Investigation of Metadiscursive Manner Markers across Sciences and Languages in Research Articles

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Abstract

This study investigated the distribution of metadiscursive manner markers across English and Persian languages in different parts of scientific research articles including abstracts, introductions, methodologies, and results & discussions across human and basic sciences in six disciplines consisting of psychology, sociology, education, biology, chemistry, medicine. For this purpose, 108 recently published articles including 54 English articles and 54 Persian articles were selected from reliable and valid journals. Three journals from each discipline and then three articles from each journal were randomly selected to build the corpus of the study to find out the distribution of metadiscursive manner markers including transitions, frame markers and code glosses in research articles, and also differences among HS and BS based on cooperative principle model (Abdi, et al, 2010). After getting raw and balanced summary tables of metadiscursive manner markers distribution for both English and Persian languages, results showed that there are significant differences between English and Persian HS and BS articles in the use of transitions, code glosses, and frame markers and also between English and Persian languages in general.

Keywords: Metadiscourse, Metadiscursive manner markers, English, Persian, Research article

1. Introduction

Writing skills have considerable importance among academia. Writing not only helps writers refine their ideas, requires them anticipate their readers' needs, fosters their ability to explain a complex position to readers, but also it makes our thinking visible and expresses who we are as a person and writer. According to Lenni Irvin, (2010) success with academic writing depends upon how well you understand what you are doing as you write and then how you approach the writing task. Writing, however, is about more than just grammatical correctness. Good writing is a matter of achieving desired effect upon an intended audience. Academic writing is always a form of evaluation that asks you to demonstrate knowledge and show proficiency with certain disciplinary skills of thinking, interpreting, and presenting.

Academic writing has lately been taken into consideration by a great number of researchers, with focus on the genre of the research article (RA) which is a growing area that has aroused great interest in the last two decades (Firoozian Pooresfahani, Khajavy, & Vahidnia, 2012). According to Hyland, (2004) the writers' ability to control the level of personality in their texts, to assert unanimity with readers, to assess their material, and to acknowledge other views, is now identified as a significant feature of successful academic writing.

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A significant amount of contribution to teaching academic writing comes from genre analysis. Genre analysis, which has gained momentum in recent EAP models, provides a useful framework for the analysis of language use for a variety of linguistic and teaching purposes (Bhatia, 2006). In other words, genre analysis is an attempt to extract explicit and implicit conventions in order to contribute to genre theory and also provide a tangible framework for the new members. Researchers who analyze RAs for applied linguistics purposes attend to a wide variety of focuses from moves and strategies (Bhatia, 1999) to rhetorical features (Hyland, 2005). Persuasion, as an important objective in authoring RAs, is arguably partly achieved by employing metadiscourse. In simple words, metadiscourse, as defined by Hyland (2005), refers to an array of self-reflective expressions used to negotiate interactional meaning in a text, assisting the writer to express a viewpoint and engage with readers as members of a particular community. According to Abdi, (2011) finding out about the currently practiced norms of employing metadiscourse in different sections of RAs across sciences can provide insight into the rhetorical structure and, hence, can be used in academic writing classes.

To have effective writing, there are some useful strategies to be used while writing. One of those strategies is the use of rhetorical aspect of writing which helps the writer to have strong, audience- focused, coherent and cohesive texts. Using rhetorical aspect in writing makes us more successful in having strong relationship with the reader. . According to Booth (1963), Rhetoric is the art of finding and employing the most effective means of persuasion on any subject, considered independently of intellectual mastery of that subject. According to Gee, (2005) the way we make visible and recognizable who we are, and what we are doing, always involves more than just language. Also, van Dijk et al. (1997) maintain that the social and cultural trends of human societies are realized in language, discourse, and communication and every speech community may have its own norms, values and ways of communication. Moreover, Dahl, (2004) observes that academic writers leave traces of themselves in their writing which may be linked to their national culture. It can be concluded that there is a general consensus among scholars that writing projects socially-situated identities (Hyland, 2005). The rhetorically-loaded aspects of discourse are better candidates to carry such identities (Abdi, 2009).

One important discourse feature which characterizes academic communities is 'metadiscourse', through which writers of academic disciplines intrude into the texts and represent themselves and their readers in one way or another. (Zarei and Mansoori, 2012). The term metadiscourse was coined by Zellig Harris in 1959 to represent a writer's or speaker's attempt to guide a receiver's perception of a text (Hyland, 2005). The concept was later developed by Vande Kopple (1985), Crismore (1989) and lately by Hyland (2004, 2005). Metadiscourse is a widely used term in current discourse analysis and language education that involves speakers or writers not only in producing but an interaction between text producers, text and their audience (Hyland, 2005). Vande Kopple (1985; 1997) holds that metadiscourse is used not to expand 'referential material' or content of the discourse, but to help readers connect, organize, interpret, evaluate and develop attitudes toward that material. Hyland (2005) mentioned that "metadiscourse stresses that as we speak or write we negotiate with others, making decisions about the kind of effects we are having on our listeners or readers".

Metadiscourse is essentially an open category which can be realized in numerous ways. A variety of metadiscourse taxonomies have, therefore, been proposed by (Crismore, 1989; Vande Kopple, 1985, 2002; Hyland, 2005; Adel, 2006; Abdi, et al., 2010). The first model was introduced by Vande kopple (1985). He introduced two main categories of metadiscourse, namely "textual" and "interpersonal". Four strategies-text connectives, code glosses, illocution markers and narrators- constituted textual metadiscourse, and three strategies-validity markers, attitude markers and commentaries-made up the interpersonal metadiscourse. Vande Kopple's model was specifically important in that it was the first systematic attempt to introduce a taxonomy that triggered lots of practical studies, and gave rise to new taxonomies.

The revised model was introduced by Crismore et al. (1993). They kept the two major categories of textual and interpersonal, but collapsed, separated, and reorganized the subcategories. The textual metadiscourse was further divided into two categories of "textual" and "interpretive" markers in an attempt to separate organizational and evaluative functions. Textual markers consist of those features that help organize the discourse, and interpretive markers are those features used to help readers to better interpret and understand the writer's meaning and writing strategies.

The third model proposed by Hyland (2005), however, comprises of two main categories of “interactive” and “interactional”. The interactive part of metadiscourse concerns the writer’s awareness of his receiver, and, the interactional part, on the other hand, concerns the writer’s attempts to make his views explicit, and to engage the reader by anticipating his objections and responses to the text.

In another model, Adel, (2006) distinguishes between two main types of metadiscourse; “metatext” and “writer-reader interaction”. Metatext spells out the writer’s or reader’s speech act while writer-reader interaction embodies those linguistic expressions which are used by the writer to engage the reader.

In the last recently introduced model , *the CP-based model of metadiscourse marking (Abdi, et al. 2010)*, Abdi, et al., (2010) added another category as interaction maxim to Grices' cooperative model, (1975) to materialize Lindblom’s conceptualization as well as other maxims to complement Gricean maxims. According to Abdi, et al., (2010), maxims including *quantity, manner, quality*, and *interaction* should be at work in helping authors to appropriately take advantage of valuable metadiscursive resources. Along with Davies (2007), Abdi, et al., (2010) believes that the maxims (i.e., the explicit guidelines to materialize the CP) are supposed to be a logical driving force behind any decision made at metadiscourse level.

Table 1.1 : The CP-based model of metadiscourse marking (Abdi, et al., 2010)

Metadiscourse Strategy	Maxims	Cooperation category	Overall orientation
Endophoric markers	1. Make your contribution as informative as is required. 2. Refer the audience to other parts of the text to avoid repetition. 3. When repetition is inevitable, acknowledge it to avoid inconvenience.	Quantity	Avoiding prolixity to make the text manageable and friendly
Collapsers	Avoid undue repetition by using proper referents.		
Transitions	1. Properly signpost the move through arguments. 2. Be perspicuous.		
Frame markers	1. Be orderly. 2. State your act explicitly.	Manner	Clarifying steps and concepts to make the text comprehensible
Code glosses	1. Avoid ambiguity. 2. Avoid obscurity of expression.		
Evidentials	1. Do not say that for which you lack adequate evidence. 2. Cite other members of the community to qualify your propositions.		
Hedges	1. Do not say what you believe to be false. 2. Do not say that for which you lack adequate evidence. 3. Mark if evidence is not enough. 4. Do not use hedges in widely accepted or supported propositions.	Quality	Building evidence on to make the propositions tenable
Boosters	1. Do not say what you believe to be false. 2. Do not say that for which you lack adequate evidence. 3. Mark if evidence is notable. 4. Do not use emphatics if evidence is not enough.		
Disclaimers	1. Do not say that for which you lack adequate evidence. 2. Outline the framework within which you would like your propositions to be interpreted. 3. Explicitly distance yourself from untenable interpretations.		
Attitude markers	Express your feelings or avoid them, according to norms and conventions.		
Self-mention	Enter your text or sidewalk it, according to norms and conventions	Interaction	Making people and feelings visible to promote rapport
Engagement markers	1. Draw the audience in or ignore them, according to norms and conventions. 2. Give directions to your readers to follow when appropriate.		

The present study aims to answer the following questions through deeply analysis of samples from English and Persian RAs Written by native speakers to discover the nature of the metadiscourse markers.

1. Do articles written in Natural sciences and Basic sciences in Persian and English language differ in the use of metadiscursive manner markers across disciplines? 2. Do articles written in Natural sciences and Basic sciences in Persian and English language differ in the use of metadiscursive manner markers across languages?

2. Method

The RAs dealing with so-called (HS) and (BS) were taken to be the corpus of the study. For the purpose of this study, due to the dynamic nature of metadiscourse, 108 research articles were selected from well-known and recently published journals. In order to ensure a reasonable coverage across sciences, we randomly selected six disciplines, that is, sociology, education and psychology from the NS and chemistry, biology and medicine from the BS. Three journals from each discipline and then three articles from each journal were randomly selected to build the corpus of the study. For the purpose of the study, the most prestigious and available journals were selected. Since this study was interested to find answers to the questions relating to the distribution of metadiscursive manner markers in the canonical divisions of RAs, namely *Abstract, Introduction, Method and Results and discussions* (Swales, 1990), the journals that did not follow this format in one way or another were discarded and replaced by random alternatives. Because the focus of this study is on the propositions, the reference sections, figures, bibliographies, footnotes were deleted and excluded from the domain of the present study. The corpus details appear in table 2.1.

For the purpose of this study, a recent metadiscourse classification formulated by Abdi, et al. (2010), the CP-based model of metadiscourse marking, was taken as the model (Table 1.1). The list of about 400 metadiscursive manner marker lexical items including *transitions, frame markers, and code glosses*, appearing in Hyland (2005, pp. 218-224), was used for analysis. However, since no comprehensive list exists, as admitted by some scholars (Ädel, 2006; Vassileva, 2001), in keeping with the main criteria of metadiscourse forms (Hyland, 2005), some forms not mentioned in the list were also recognized in the process of analysis through a discussion with colleagues. The manual frequency count was used following the Systemic- Functional Grammar (SFG) of Halliday (1978, 1994), as opposed to the machine-supported concordancing strategies recently used on a wide scale in corpus linguistics. In the corpus of this study, the Persian RAs were notably shorter than the English ones, and there were also differences among articles within each language in terms of word count. This could damage the validity of the quantitative analyses. Such being the case, an average of 38386 words for every nine articles from each discipline was taken as the criterion length for every group of 9 articles from each discipline. Estimated in this way, the whole corpus of this research totaled to about 460000 words. It's worth mentioning that a small difference in the original corpus was ignored to have a round number.

Table 2.1: Sampling Process to Build the Corpus

	Human Sciences									Basic Sciences									GT			
	Sociology			Psychology			Education			T	Physics			chemistry			Medicine			T		
Journals	J1	J2	J3	J1	J2	J3	J1	J2	J3		J1	J2	J3	J1	J2	J3	J1	J2	J3			
English	3	3	3	3	3	3	3	3	3	27	3	3	3	3	3	3	3	3	3	3	27	54
Persian	3	3	3	3	3	3	3	3	3	27	3	3	3	3	3	3	3	3	3	3	27	54
T	6	6	6	6	6	6	6	6	6	54	6	6	6	6	6	6	6	6	6	6	54	108

J1: Journal one **J2:** Journal two **J3:** Journal three **T:** Total **GT:** Grand Total

3. Results

The manual and qualitative search for the three metadiscursive manner markers made available the data that appears in Tables 3.1. An approximate look at the total frequency of MMMs of Persian and English writers in Table 4.1 shows that the writers of the two languages used MMMs significantly differently. In other words, as can be seen in Table 3.2, the total frequency of English language MMMs in six disciplines is 5864 while this frequency in Persian language is 4993.

This could mean that metadiscourse marking is widely recognized as a useful rhetorical instrument in the process of persuasion in RA writing among the practitioners of both HS and BS. Also, there are significant differences in the frequencies of used MMMs across English and Persian sciences. As it can be seen in table 3.2, contrasting the frequencies of EHS and PHS (3136 verses 2628), and EBS by PBS (2728 verses 2365) indicated that the writers of the two disciplines in both English and Persian languages used MMMs significantly differently.

To investigate any significant differences across sciences and languages in using the MMMs, RAs were compared and analyzed by the chi-square test shown in Table 3.3. As shown in Table 3.3, there is a significant and quite meaningful difference in the use of MMMs in the canonical subsections of research articles across English and

Science	Science Branch	Topic Articles Number &	Words number	Transitions	Code Glosses	Frame Markers	Total	Total of E.P.H.B. Sciences M.M.M
		Psychology	38386	612	283	274	1169	3136
		Sociology	38386	576	189	170	935	

Persian languages and sciences.

E.P.H.B. Sciences: English Persian Human Basic Sciences GT: Grand Total T: Total

English	Human Sciences	Education	38386	627	185	220	1032	
		Biology	38386	686	222	175	1083	
	Basic Sciences	Chemistry	38386	453	109	179	741	
		Medicine	38386	613	144	147	904	2728
T	Human Sciences	54 Articles	230316	3567	1132	1165	5864	5864
		Psychology	38386	633	95	256	984	
		Sociology	38386	556	117	151	824	
Persian	Human Sciences	Education	38386	527	108	185	820	2561
		Biology	38386	500	84	169	753	
	Basic Sciences	Chemistry	38386	597	99	89	785	
		Medicine	38386	556	87	184	827	1632
T		54 Articles	230316	3369	590	1034	4993	4993
GT		108 Articles	460632	6936	1722	2199	10857	10857

Table 3.1: Summary of Metadiscursive Manner Markers Distribution in Different Parts of Research Articles across Sciences and Languages adjusted to length

Table 3.2: Adjusted Summary of Metadiscursive Manner Markers Distribution across Sciences and Languages

Language	Science Branch	Transitions	Code Glosses	Frame Markers	T	GT
EL	HS	1815	657	664	3136	
	BS	1752	475	501	2728	5864
PL	HS	1716	320	592	2628	
	BS	1653	270	442	2365	4993

EL: English language PL: Persian language HS: Human science BS: Basic science

Table 3.3: Chi-square Values of Comparing Metadiscourse Strategies across Sciences and Languages

Metadiscursive Manner Markers

	Transitions	Code Glosses	Frame Markers	Total
PHS/EHS	2.76	116.24	4.012	123.012
PBS/EBS	2.88	56.4	3.7	62.98
PHS/PBS	1.18	4.2	21.76	27.14
EHS/EBS	1.12	29.26	22.80	53.18
PT/ET	5.64	170.59	7.8	184.03

d.f: 1 level of significance: 0.01 χ^2 (Chi-square critical value): 6.63 correction factor: ± 0.5

PHS: Persian human Science EHS: English human Science PBS: Persian basic science

EBS: English basic science ET: English total PT: Persian total

Discussion

With regard to the first question, an approximate look at the total frequency of MMMs of Persian and English writers in Table 4.1 and the χ^2 value in Table 4.4 (184.03) shows that the writers of the two languages used MMMs significantly differently. This finding is in accordance with the results represented by Zarei and Mansori (2007) and Marandi (2003), who compared a number of Persian and English texts. Also, to answer the second research question, as seen in four first rows, the PHS/EHS, PBS/EBS, PHS/PBS, and EHS/EBS were compared and their χ^2 values were (123.012, 62.98, 27.14, and 53.18) respectively. Considering, (6.63) as criteria for χ^2 critical value, and contrasting the obtained values above, indicated that the writers of English and Persian languages had different mentality in using MMMs in their writing. Even, among English human science and basic science writers, there was different tendency to use MMMs. Nevertheless, the χ^2 value for this comparison (22.80) indicated that English human science writers used more MMMs than English basic science writers. The same result was obtained in Persian language too. Persian writers used more MMMs in human sciences than basic sciences and the χ^2 value (27.14) supported this result. In other words, there is a significant difference in the use of metadiscursive manner markers across English and Persian human and basic sciences.

As it can be seen in Table 3.1 the overall number of transitions used in 54 English basic and natural sciences research articles is 3567, while this amount in Persian language in the same situation is 3369. Looking at their frequencies indicate a little difference between them and the chi-square value $\chi^2 = 5.64$, (see Table ...), is the second of this claim. Looking generally at the transitions critical values, (2.76, 2.88, 1.18, 1.12, 5.64), indicated that there is no significant differences in the use of transitional manner markers across sciences and languages. In other words, English and Persian languages benefit transitional MM approximately similarly. It means that, writers of two languages had similar mentality of using transitional MM in their written texts.

About frame markers which used across sciences and languages in research articles, situation is somehow different in contrast to transitions. The χ^2 value of frame markers comparing PHS/EHS and PBS/EBS, (4.012, 3.7), indicated that there is no significant differences in the use of frame markers. However, within Persian language across human and basic sciences, the χ^2 value was 21.76 and this value represented that there is significant difference between PHS and PBS in using frame markers. This is also the case in the comparison of EHS and EBS. The χ^2 value was 22.80 and represented that there is significant difference between them. To elaborate this result, it can be said that English and Persian writers used more frame markers in human disciplines than basic disciplines and maybe it's due to this matter that English and Persian human disciplines needs more frame markers to persuade their audiences and to conceptualize exactly the written texts until to be understood easily by the readers. Also, maybe, it's related to the psychoanalysis of oral/written communication within the societies among peoples who prefer to use frame markers more in HS than BS.

Thirdly, χ^2 values of code glosses in Table 3.3 indicated that there was significant difference in using code glosses in English and Persian human and basic sciences, (116.24, 56.4), and English writers apply notably code glosses than Persian writers. Also, the χ^2 value of comparing EHS with EBS was 29.26 and confirmed that there was a

significant difference in using code glosses. Nevertheless, the χ^2 value of PHS/PBS was 4.2 and indicated showed that there was no significant difference in applying code glosses.

The most important component of MMM that contributed to the significant differences across sciences and languages in research articles is the code gloss. The χ^2 value of code glosses, (170.59), shows that English language pays more attention to the use of this kind of MMM across human and basic sciences, while Persian language isn't in line with the English language. Maybe, Persian writers suppose that there is no need to elaborate the written texts to be understood easily by the reader, or, they delegate the full perception of the subject or theme to their audience.

Another explanation for this matter can be related to the high potential of English language linguistics in contrast with Persian language in using code glosses in their written categories. In other words, the capacity range of English language in using code glosses refers to its comprehensive vocabulary domain and considering that English language as an international language all over the world has an intensive dispersion, necessitate all endeavors to have an intelligible oral/written communication among all the nations. It can be said that English language, generally, intends to pave the way for readers to have understandable comprehension without getting into trouble.

4. Conclusion

This study embarked on investigating the distribution and nature of metadiscursive manner markers within the canonical divisions of research articles across sciences and languages. First of all, this study confirms the idea of universality of metadiscourse (Bartholomae, 1986). Metadiscourse is a crucial and inseparable part of language used by writers across languages or cultures, disciplines, genres, etc. Metadiscourse and its subcategories are rhetorical devices which help writers to transfer the informative content of the text, to respond to the reader's need for elaboration and involvement, and to provide sufficient clues through the text for the reader to get the writer's intention. The study also confirmed the vital role that metadiscourse elements play in academic genres (Swales, 1990).

Secondly, the existence of significant difference in using MMMs across English and Persian languages and sciences revealed that the writers of English had great tendency to use MMMs, especially and notably code glosses to elaborate propositional meaning, in their written categories than Persian writers.

This study explored to find out whether there were any similarities or differences in the employment of metadiscursive manner markers in the genre of RAs between Persian and English writers in different six disciplines (Biology, chemistry, and medicine from basic sciences; and sociology, psychology, and education from human sciences). It was shown that there were considerable differences in the use of MMMs across English and Persian language and sciences. According to Abdi, (2009) there might be interference from native language when trying to communicate in English with other members of a discourse community. Such a concern required that metadiscourse was better advised to be explicitly taught in teaching how to write RAs.

References

- Abdi, R. (2009). Projecting cultural identity through metadiscourse marking; A comparison of Persian and English research articles. *Journal of English Language Teaching and Learning*, 52(212), 1-15.
- Abdi, R. (2009). The distribution and nature of metadiscourse markers in English and Persian research articles. Unpublished Ph.D. thesis, Isfahan: Isfahan University.
- Abdi, R. (2011). Metadiscourse strategies in research articles: A study of differences across subsections. *The Journal of Teaching Language Skills (JTLS)*, 3(1), 1-16.
- Abdi, R., Tavangar Rizi, M., & Tavakoli, M. (2010). The cooperative principle in discourse communities and genres: A framework for the use of metadiscourse. *Journal of Pragmatics*, 42, 1669-1679.
- Ädel, A. (2006). *Metadiscourse in L1 and L2 English*. Philadelphia/Amsterdam: John Benjamins Publishing Company.
- Bartholomae, D. (1986). Inventing the universality. *Journal of Basic Writing*, 5, 4-23.
- Bhatia, V. K. (1999). Integrating products, processes and participants in professional writing. In C. N. Candlin & K. Hyland (Eds.), *Writing: Texts, processes and practices*, 21-39.

- Bhatia, V. K. (2006). Analyzing genre: Some conceptual issues. In M. Hewings (Ed.), *Academic writing in context: Implications and applications*, 79-92. London: Continuum.
- Booth, W. C. (1963). Toward a new rhetoric; The rhetorical stance. *College Composition and Communication*, 14(3), 139-145.
- Crismore, A., Rajja, M., & Steffensen, M. (1993). Metadiscourse in persuasive writing: a study of texts written by American and Finnish university students. *Written Communication* 10, 39–71.
- Crismore, A. (1989). *Talking with readers: Metadiscourse as rhetorical act*. New York: Peter Lang Publishers.
- Dahl, T. (2004). Textual metadiscourse in research articles: A marker of national culture or of academic discipline. *Journal of Pragmatics*, 36, 1807-1825.
- Davies, B. L. (2007). Grice's cooperative principle: meaning and rationality. *Journal of Pragmatics*, 39 (12), 2308–2331.
- Firoozian Pooresfahani, A., Khajavy, M. H., & Vahidnia, F. (2012). A contrastive study of metadiscourse elements in research articles written by Iranian applied linguistics and engineering writers in English. *English Linguistics Research*, 1(1), 88-96.
- Gee, J. P. (2005). *An introduction to discourse analysis: Theory and method* (2nd edn). London: Routledge.
- Grice, H. P. (1975). Logic and conversation. In: Cole, P., Morgan, J. (Eds.), *Speech Acts*. Academic Press, New York, 45–58.
- Hyland, K. (2004). Disciplinary interactions: Metadiscourse in L2 postgraduate writing. *Journal of Second Language writing*, 13, 133-151. London: Longman.
- Hyland, K. (2005). *Metadiscourse: Exploring interaction in writing*. Continuum: London.
- Hyland, K. (2005). Prudence, precision, and politeness: Hedges in academic writing. Institute of Education, University of London. *Linguistics studies*, X, 99-112. Retrieved from the www.roderic.uv.es/bitstream/handle/10550/30033/99.pdf?sequence=1.
- Hyland, K. (2005) Stance and engagement: A model of interaction in academic discourse. *Discourse Studies*, 7(2), 173-192.
- Lennie Irvin, L. (2010). Writing spaces: Readings on writing. *Parlor Press*, 1, 3-16.
- M.A.K. Halliday. 1978. *Language as a Social Semiotic*. University Park Press.
- M.A.K. Halliday. 1994. *An Introduction to Functional Grammar*. Edward Arnold, London, 2nd edition.
- Marandi, S. (2003). Metadiscourse in Persian/English master theses: A contrastive study. *Iranian Journal of Applied Linguistics*, 6(2), 23-42.
- Swales, J. (1990). *Genre analysis: English for specific purpose in academic and research setting*. New York: Cambridge University Press.
- Van Dijk, T., Ting Toomy, S., Smitherman, G., & Troutman, D. (1997).
- Vassileva, I. (2001). Commitment and detachment in English and Bulgarian academic writing. *Journal of English for Specific Purposes*, 20, 83–102.
- Zarei, G. R., & Mansoori, S. (2007). Metadiscourse in academic prose: A contrastive analysis of English and Persian research articles. *The Asian ESP Journal*, 3(2), 24-40.
- Zarei, G. R., & Mansoori, S. (2012). An analysis of disciplinary distinction between Persian and English: A case study of computer sciences. *Journal of MJAL*, 4(1), 1-15.