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Comparative Generic Analysis of Introductions of English and Persian Dentistry Research Articles

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Abstract
The present contrastive study reports a research on a genre analysis of the introduction section of dentistry research articles between English and Persian languages. To this end, 70 introduction sections written in English and Persian and published in well-known leading journals were examined and analyzed using Swales' (2004) classification of moves and steps in introduction sections. Frequency and Chi-square test were used to examine the differences between the two corpora of introduction sections. The analysis of the introduction sections shows that Move 1 step 1 "claiming centrality", Move 2 step 1a "counter-claiming" and Move 3.1 "Announcing present research descriptively and/or purposively" are the most frequently used moves in English and Persian corpora. Moreover, the findings show that the majority of research articles across the two corpora opened with Move 1.1 "Claiming centrality". Also, results revealed that there was a statistically significant difference in certain moves between English and Persian introduction sections.

Keywords: Rhetorical moves, Introduction section, Dentistry research article, Swales' (2004) three-move structure

1. Introduction
Research article genre is a kind of persuasive writing which tries to exhibit new assertions for scientists, but there is no guarantee that those assertions are accepted or approved as new knowledge by disciplinary communities (Livant, 2012). A language manifests itself in terms of certain scientific features in different disciplines resulting in different genres. Moreover, each of these disciplines shows how intercommunication among its members

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works. Therefore, research article genre was completely annotated by Montgomery (1996) as 'master narrative of our time'. In order to write an acceptable scientific or academic text in a second or foreign language and to be publishable /in prestigious journals, a writer should obey some rules which are essential means of securing scientific change (Livant, 2012).

Iranian papers in the field of medicine go along with worldwide authorities to contribute their development of medical knowledge. Dentistry as one the most important branches of medicine is chosen to be scrutinized for English for specific purposes (ESP) context. Iranian dentistry authorities attempt to know about the findings of scholars by the articles they publish in prestigious journals especially ISI ones. This is why it is essential to know about the model and the rules of writing governing the process of paper writing. Writing and publishing in English requires a high level of professional working proficiency in scientific English to be able to share the latest breakthroughs in dentistry. That is why scholars like Swales have paid special attention to the effective way of writing scholarly papers through abiding by some models and rules in order to prepare a well-written publishable paper.

Dentistry as one of the liveliest and most burgeoning scientific fields has continued to influenced and expand human's knowledge base. Similarly, this field of inquiry plays an important role in ESP. Therefore, working on dentistry articles and the rules which an author must follow is a necessity.

Research articles, in particular their structure, social construction and historical progression; have been explored through a large body of studies on academic writing over the past years. A number of these studies have addressed the overall organization of various parts of the research article such as abstract sections (Hastrai, 2010; Marefat & Mohammadzadeh, 2013; Salager-Meyer, 1992), introduction sections (e.g. Cortes, 2013; Lin & Evans, 2012; Martin & Pérez, 2014; Omidi & Farnia, 2016; Swales 1981, 1990; Swales & Najjar 1987), result sections (Thompson, 1993), discussion sections (Atai & Fallah, 2004; Basturkmen, 2012; Ershadi & Farnia, 2015; Flowerdew, 2015; Hopkins & Dudley-Evans, 1988; Kim Loi, Evans, Lim & Akkakoson, 2016) and conclusion sections (Lin & Evans, 2012; Tabatabaei & Azimi, 2015) and some studied the whole sections (Stoller & Robinson, 2013; Tessuto, 2015). However, as findings of Bahrami and Riazi's study (2009) reveal, writing the Introduction and the Discussion sections of all research articles, in comparison with the Methods and the Results sections, call for more personal innovations, ingenuity, and partiality. They, consequently, have a tendency to make known the rhetorical strengths or weaknesses.

Different lexico-grammatical structures of the research article (RA), ranging from tense choice to citation practices, have also been investigated. The social and the historical development of the research article (Salager-Meyer, 1992) have been considered as well. Swales' (1981, 1990) work on the move structure of RA introductions, and since then the proposed Creating a Research Space (CARS) model were not effectively used in the research article structures and some significant features of all introductions, such as the presence of definitions of terms, exemplifications of difficult concepts, and evaluation of the research presented, leaving the applicability of the CARS model open to question, and underscoring the need for a greater degree of modification and embedding in the CARS model to account for the structures found in RA introductions across disciplines. The current study reports on an analysis of RA

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introductions across the ESP. This study attempted to scrutinize the Introduction section of Dentistry research articles based on ESP move analysis.

The purpose of the study is shedding light on the generic features of Iranian Dentistry research articles through analyzing RA moves from the perspective of ESP move analysis based on CARS model presented by Swales (2004) and also comparing the result of move analysis of Dentistry research articles written by Iranian authors in Persian with those of native speakers of English. The study also focused on the frequency of moves which are used in introduction sections of Dentistry research articles.

The research questions addressed in this study are as follows:

1. How do the move structures used in Introduction sections of Dentistry research articles written by native speakers of English and native speakers of Persian compare?
2. Are there any significant differences between Rhetorical moves that constitute the generic structure of introduction sections of Dentistry research articles written by native speakers of English and native speakers of Persian?

2. Methodology

2.1. Corpus of the study

To explore and investigate comparatively the rhetorical structure of research article introductions across two languages, i.e., English and Persian, a corpus of 70 RA introductions in Dentistry in these two languages were selected. RA introductions were randomly chosen from recent publication in leading journals in their respective field.

2.2. Procedure

The data analysis was run in four major steps: in the first step, an effort was made to select and find reputable Dentistry journals in English and Persian. Several journals were randomly scrutinized from ISI English and Iranian Elmi-Pazhuheshi journals. In doing so, more than one hundred Dentistry RAs were meticulously checked by the researchers to specify the Introduction sections of RAs. The investigation yielded seventy articles for final analysis.

As the next step of data analysis the rhetorical move structures applied in the Introduction sections of Dentistry RAs were identified. The study followed Nwogu's (1997) rigorous definition of move as "a text segment made up of a bundle of linguistic features (lexical meanings, propositional meanings, illocutionary forces, etc.) which gives the segment a uniform orientation and signal the content of discourse in it" (p. 114). In the process of move identification, this definition helps the classification of chunks of the text in terms of their communicative functions. A move can be classified into one or more steps which involving communicative purposes for that move.

2.3. Codification of Data

In order to identify the rhetorical function each rhetorical structure performs Swale's (2004) three-move model was used. Based on this model, three moves are identifiable: Establishing a territory (M1), Establishing a niche (M2) and Occupying the niche (M3). As shown in Table 2, each move is reflective of the realization of a particular communicative purpose (Hyland, 2002). In the process of identifying moves, following previous studies (e.g., Abedi, 2013; AtaiandFallah, 2004; Holmes, 1997), the frequently used unit for move analysis was the sentence. The process of recognizing moves in RAs introduction included the following steps s: first, following You (2015), the whole introduction section was read sentence by sentence so as to arrive at a plausible understanding of the communicative purposes underlying those sections. In most cases, the data analysis involved repeated

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readings for move identification and in case a sentence featured two moves, the one that seemed to be more dominant was chosen. Again, this followed the established procedure (see DelSaz-Rubio, 2011; Ozturk, 2007). The Second stage of move identification involved marking linguistic and discourse markers, lexical items, and propositional meanings of the text segment for assigning moves within the text segment. In the third step, the analysis of discussion sections in dentistry RAs was carried out in the light of Swales' (2004) three-move structure. The analysis of introduction sections in Dentistry research articles in the fourth step was also based on Swales' (2004) three-move structure (TMS). The Swales (2004) model is set out in Table1.

It needs to be pointed out that the current study followed Amnuai and Wannaruk (2013) for identifying and classifying each move in every RA as obligatory, conventional, and optional move. They used Kanok silapatham's (2005) criterion for justifying and classifying each move. According to Amnuai and Wannaruk (2013), "If a particular move occurs in every RA (100%), it is regarded as 'obligatory', if the occurrence of a move is below 60 %, it is 'optional', and if the occurrence ranges from 60-99%, the move will be classified as conventional." (p.3)

Here are some examples of each move and step throughout articles which this study focused on.

Table 1. *Swales' (2004) CARS (Create-a-Research-Space) model*

Moves	Steps
Move 1 Establishing a territory	Step 1 Claiming centrality and/or Step 2 Making topic generalization(s) and/or Step 3 Reviewing items of previous research
Move 2 Establishing a niche	Step 1A Counter claiming in the previous research or raising a question about it. Step 1B Indicating a gap. Step 1C Question raising Step 1D Adding to what is known Step2 (optional):Presenting positive justification Step3(optional):Implicit inconsistencies precluding gap
Move 3 Occupying the niche	Step 1 (obligatory) Announcing present research descriptively and/or purposively Step 2 (optional) Presenting RQs or hypotheses Step 3 (optional) Definitional clarifications Step 4 (optional) Summarizing methods Step 5 (PISF) Announcing principal outcomes Step 6 (PISF) Stating the value of the present research Step 7 (PISF) Outlining the structure of the paper

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Move 1 Step1: Claiming Centrality

Example:

● This is essential so that they can provide optimal care for their patients.

● یکی از مشکلات و دغدغه‌های جامعه دندانپزشکان میزان واقعی فلوراید در غذاهای مصرفی نوزادان از جمله شیرهای تجاری و شیر خشک می‌باشد.

Move 1 Step2: Making Generalizations of Increasing Specifity

Example:

● In previous studies, flurcansite glasses derived from the stoichiometric formulation of Beall, 60Sio2-10Na20-5k2o-15Cao-10CaF2, have been investigated and various modifications to the compositions have been under taken in an attempt to produce a chemically durable fluorcanasite composition with satisfactory mechanical properties.

● در پژوهش‌های انجام شده اثر ماده‌سازی گوناگون سطوح همچون ایرابریژن و خشن‌سازی سطوح توسط فرز و باندینگ‌های موجود بررسی شده

Move1 Step3: Citation/Literature Review

Example:

● The use of at-home bleaching was first introduced to the dental profession by Haywood and Heymann using 10% carbamide in 1989.

● در سال ۱۹۸۵ shapiro متوجه شد که اعمال جراحی لثه بر روی آن عده زیمارنی که بنا به دلایلی غیر از صرع، فنی تویین استفاده می کردند، با سرعت ترمیم بیشتر و درد کمتری همراه است.

Move 2 Step 1: a) Counter-claiming

Example:

● However, this familiarity is mostly with commercial scanners that are not optimized for studies of mineral concentration in teeth and generally exhibit poor SNR.

● با وجود موفقیت ایمپلنت‌های دندانی محدئدیتهایی در زمینه قرار دادن آنها وجود دارد که از جمله آنها حجم استخوان موجود و سطح تماس بین ایمپلنت و استخوان می‌باشد.

Move2 Step1: B) Indicating a Gap

Example:

● To date corrosion, which is an ambiguous term in dentistry, has been hypothesized but never proven, nor has a chemical been written to illustrate the oxidation of hydroxyapatite.

● میزان چرخش دستگاه، شکل دسته پرتو X و نوع الگوریتم به کار رفته جهت پردازش‌ها در سخت شدن پرتوها نقش دارد اما تعداد کمی از مطالعات به مقایسهٔ کمی بین دستگاههای CBCT و CT پرداخته است.

Move2 Step1: c) Question Raising

Example:

● What is not known is whether tailored dietary advice delivered to patients with IODs would have an equal or even greater positive impact on diet i.e. does the functional superiority of IODs facilitate compliance with dietary advice?

● This step was absent in Persian corpora.

Move2 Step1: d) Adding To What Is Known (Step 1b Continuing a Tradition)

Example:

● … Subsequently, techniques with tooth preparation became widely accepted.

● از این رو شیوع HIV در میان کارکنان دندانپزشکی در انگلستان و آمریکا از صفر تا ۶,۲ درصد متغیر است.

Move2 Step2: Presenting Positive Justification (Optional)

Example:

● We postulate that because of the likely challenges to chewing function that dietary modification to increase consumption of fruits, vegetables and foods rich in fiber poses, edentulous patients with IOD will be more able to comply.

● فریم ورک‌های زیر کونیایی رنگی مختلفی ابداع شده و برای دستیابی به خواص رنگی بهتر و طبیعی‌تر در بریج‌های و کراون‌های مورد استفاده قرار می گیرند.

Move2 Step3 Implicit Inconsistencies Precluding Gap Signaling (Optional)

Example:

● Excess water sorption at the surface of the polymer can lead to hydrolytic degradation of the resin polymer matrix and a decrease in mechanical properties.

● This step was absent in Persian research articles.

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Move3 Step 1a) Announcing Present Research Descriptively and/or Purposively

Example:

● The purpose of the present investigation was to assess the accuracy and repeatability of photogrammetry to directly obtain the location and orientation of implants.

● باتوجه به نتایج متناقض موجود در تحقیقات انجام گرفته، هدف از این مطالعه مقایسه سطح اضطراب و سطح کورتیزول و بزاقی در بیماران مبتلا به لیکن پلان دهانی با افراد سالم بود.

Move3 Step 1B) 'announcing present research'

Example:

● The present investigation examined the survival rate of implants that support MRICFDPs that were provided in a private practice setting with both delayed and immediate protocols, and were followed up for up to 22 years.

● در این مطالعه سعی شده تا حد امکان با رفع نقایص مطالعات قبلی، نحوه توزیع و تنش و تغییرات آن در دندان‌هایی که درمان ریشه شده و با روش پست‌ـ کور و کرون بازسازی شده به کمک آنالیز اجزای محدود بررسی شود.

Move 3 Step 2) Presenting Research Question, Hypothesis or Assumptions (Optional)

Example:

● The null hypothesis was that a prototype photogrammetric technique would not achieve the same level of accuracy and repeatability as impression-based techniques.

● This step was absent in Persian corpus.

Move3 Step 3) Definitional Clarifications (Optional)

Example:

● Chewing ability is defined as the ability to break down foods and can be evaluated by either the subjective or the objective method.

● هنگامی که پرتو اشعه ایکس از میان یک جسم عبور می‌کند فوتون‌ها با انرژی کمتری در مقایسه با انرژی بیشتر جذب می‌شوند که این پدیده سخت شدن نامیده می‌شود.

Move3 Step 4) Summarizing methods (optional)

Example:

● To address the risks and costs associated with collecting location and orientation data for multiple implants, alternatives to conventional impression-based method have been explored. It was apparent that by collecting digital geometry data directly from the implants without any of the intermediate transfer techniques currently being used, total risk and cost must be reduced.

● This step was absent in Persian research articles.

Move3 Step 5) Announcing principal outcomes (PISF)

Example:

● Results of studies have shown different results for different study designs, which have led to controversy in the outcomes. Uncontrollable factors in previous studies include the intaglio surface complete dentures and the altered vertical dimension with different dentures bases. A few intra-individual studies with the same dentures base have also been performed.

● به‌عنوان یک یافته، استحکام کششی (Tensile Strength) در سرامیک‌ها و شیشه‌ها، از استحکام فشاری (Compressive Strength) کمتر است.

Move3 Step 6) Stating the Value of the Present Research (PISF)

Example:

● This technique which is applied in this study is valuable because it has been successfully used for more than 100 restorations over 3 years, including laminate veneers, complete crows, inlays, and on lays.

● This step was absent in Persian research articles.

Move3 Step 7) Outlining the Structure of the Paper (PISF)

Example:

● This analysis is divided into 7 sections: (1) dental caries and cardiology; (2) periodontics; (3) dental materials; (4)

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occlusion and temporomandibular disorders; (5) prosthodontics; (6) endodontic; (7) implant dentistry.

This step was absent in Persian research articles.

3. Result

Table 2 demonstrates the results of comparing the microstructures in Introduction sections of English and Persian research articles.

As displayed in Table 2, the results revealed that move 1 step 1"claiming centrality" is the most dominant move for 35 introduction sections of Persian Dentistry RAs. Move 3 step 1a "Announcing present research descriptively and/or purposively" is present in 32 Persian articles. Move 2 step 1a "counter-claiming" is the next most frequently used move in Persian articles with the rate of occurrence in 29 articles after move 1 step 1a.

Results of inferential statistics indicated that there were statistically significant differences between *making generalizations of increasing specificity, literature review, Indicating a gap, implicit inconsistencies precluding gap signaling, announcing present research, Presenting research question/hypothesis*, and *stating the value of the present research* between English and Persian corpora.

Table 2. *Moves and Their Frequency within 70 Research Articles Introductions in English and Persian*

Moves	Corpus		English RAs		Persian RAs	
			F	%	F	%
Move 1 Establishing a territory	Step 1	Claiming centrality	35	100%	35	100%
	Step 2	Making generalizations of increasing specificity	24	68.57%	28	80%
	Step 3	Literature review	20	57.14%	10	28.57%
	Step 1A	Counter claiming	25	71.42%	29	82.85%
	Step 1B	Indicating a gap	14	40%	6	17.14%
Move 2 Establishing a niche	Step 1C	Question raising	2	5.71%	2	0%
	Step 1D	Adding to what is known	14	40%	14	40%
	Step 2	Presenting positive justification	5	14.28%	5	14.28%
	Step 3	Implicit inconsistencies precluding gap signaling	4	11.42%	0	0%
	Step 1a	Announcing present research descriptively (outlining purposes)	25	71.42%	32	91.4%
	Step 1b	announcing present research	14	40%	14	40%
Move 3 Occupying the niche	Step 2	Presenting research question/hypothesis	13	37.14%	0	0%
	Step 3	Definitional clarifications	13	37.14%	12	34.28%
	Step 4	Summarizing methods	3	8.57%	0	0%
	Step 5	Announcing Principal findings	5	14.28%	2	5.71%
	Step 6	Stating the value of the present research	4	11.42%	0	0%
	Step 7	Outlining the structure of the paper	8	22.85%	0	0%

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Table 3. *Results of Chi-square analysis between English and Persian Corpus*

Moves		Corpus	*df*	*AsympsSig*
Move 1 Establishing a territory	Step 1	Claiming centrality	1	1.0
	Step 2	Making generalizations of increasing specificity	1	0.20
	Step 3	Literature review	1	0.01
Move 2 Establishing a niche	Step 1A	Counter claiming	1	0.25
	Step 1B	Indicating a gap	1	0.03
	Step 1C	Question raising	1	0.24
	Step 1D	Adding to what is known	1	1.00
	Step 2	Presenting positive justification	1	1.00
	Step 3	Implicit inconsistencies precluding gap signaling	1	0.04
Move 3 Occupying the niche	Step 1a	Announcing present research descriptively (outlining purposes)		0.03
	Step 1b	announcing present research'	1	0.12
	Step 2	Presenting research question/hypothesis	1	0.00
	Step 3	Definitional clarifications	1	0.80
	Step 4	Summarizing methods	1	0.12
	Step 5	Announcing Principal findings	1	0.21
	Step 6	Stating the value of the present research	1	0.04
	Step 7	Outlining the structure of the paper	1	0.00

4. Discussion

The results of move analysis of both corpora suggested that move 1 step 1 "claiming centrality" was present in all English and Persian RAs. This move along with move 3 step 1a had an identical frequency and was identified as the second most commonly used move in English RAs and Persian corpus. In any case, they are classified as an obligatory move in both corpora. The finding regarding the analysis of this move (move 1 step1) indicated that there was no statistically significant difference between the two corpora in using this move. Move 1 step 2 "making generalization of increasing specifity" was one of the dominant s in Persian as well as English corpus and it is classified as an obligatory move for classifying the frequency of each move in two groups of Dentistry RAs. The results showed that there was no significant difference in applying this move by English and Persian writers.

In the present study, "citation/Literature review" is classified as conventional move.. This move was observed in 28.57% of Persian RAs in relation to other moves and appeared in 57.14% of English RAs. The results of the statistical analysis showed that there was a significant difference between two corpora.

Move 2 step 1a "counter-claiming" was also one of the most frequent moves in both English and Persian corpora. As it occurred in most RAs, it is identified as quasi-obligatory move in both corpuses of Dentistry research articles. Results showed that there is no statistically significant

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difference between the two corpora in terms of using this move. "Indicating a gap" known as move 2 step 1b was observed in 40% of English RAs in relation to other moves and appeared in 17.14% of Persian RA with no respect to other moves. Data analysis spoke to a significant difference the two sets of corpora in using this move. Move2 Step1c "question raising" is identified as a conventional move in English and Persian corpora. The statistical significance of the difference between the two sets of RAs in this respect, however, was not confirmed.

Move 2 Step 1d "Adding to what is known" "is also identified as a conventional move in these two corpora. This move was present in 40% 0f English and Persian RAs without regardless of other moves. It was found that there was not any statistically significant difference in the frequency of using this move in English and Persian corpus. Move 2 step 2 "Presenting positive justification" was identified in 14.28% of both English and Persian research articles. Due to lack of considerable frequency of using Move 2 step 2, this move can also be identified as an optional move in the two groups. The statistical significance of the difference between two groups of RAs was not established. Move 2 step 3 "Occupying the niche" is identified as an optional move in English and Persian corpus since it is rarely used by two groups of writers in making use of this move. The results of Chi-square test indicated that there was a statistically significant difference between the two sets of RAs.

Move 3 step 1a "Announcing present research descriptively and/or purposively" is also identified as an obligatory move in these two corpora. This move was present in 71.42% of every English research articles and 91.4% of Persian ones without regard to other moves. The results confirmed the statistical significance of the difference in terms of using this move in both English and Persian corpora.

"Announcing present research" is another sub move which is classified as move 3, step 1b in Swales' model. This sub move represents an alternative strategy to that used in step 1 and labeled as an optional move in the current study. The findings failed to uphold the statistical significance of the difference between the two groups of corpora.

"Presenting research question, hypothesis or assumptions", as the move3 step 2 in Swales' model, is classified as an optional and conventional move in English and Persian corpus, respectively. The findings demonstrated that there was a statistically significant difference across English and Persian corpora in making use of this move by two groups of writers because while this move was absent in Persian RAs , it was observed in 37.14% of English ones.

The results of move analysis of both corpora exposed that move 3 step 3 "Definitional clarifications" was present in both English and Persian RAs. In any case, they are classified as a conventional move in both corpora. Regarding statistical significance, data analysis did not yield any statistically significant difference between the two groups of writers in making use of this move.

"Summarizing methods" categorized as move 3 step 4 in swales' classifications was also identified as an optional move in these two corpora. This move was present in 8.57% of English and absent in Persian RAs without regard to other moves. The results failed to establish the statistical significance of the difference in the use of this move in English and Persian corpora. Move 3 step 5 "Announcing principal outcomes" is classified as an optional. It was found that there was no statistically significant difference in using this move by the writers of English and Persian RAs. This move has been classified as probable in some fields but unlikely in others (PISF).

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"Stating the value of the present research" or move 3 step 6 was rarely used in both corpora. The results indicate that the difference between the two groups of corpora in this respect failed to achieve statistical significance. This move by the frequency of 11.42% in English RAs and absence in Persian ones was labeled as optional.

Move 3 step 7 "Outlining the structure of the paper", as the last move in Swales' model, is identified as the conventional move across the two groups of RAs as it was absent in Persian articles. Data analysis spoke to the lack of statistical significance in terms of the difference across the English and Persian corpora.

The results of this study contrasted Khani and Tazik's (1997) study of introduction sections of applied linguistics in which there were no statistically significance differences between the moves between English and Persian corpora. However, the findings were in line with Yazdanimoghadam's (2010) and Falahi Moghadam and Mobasher's (2007) in which there were statistically significant differences between Persian and English moves.

The results of the current study can be of significance for genre theory as well as pedagogy. Samraj (2005) maintains that "the results of previous studies on academic genres have been translated into pedagogical applications" (p. 153). The findings of the study can be applied to familiarize novice researchers with the rhetorical structures found in academic writing among different sub-disciplines. Besides, familiarizing with the generic structure of texts can help academics to be more successful in their writing ability in educational and academic settings. Pedagogically, the findings can assist students to learn norms and well-established rules in developing a specific genre. Indeed, lack of familiarity with genre and text structure in academic discourse settings might lead to the reader's misunderstanding of the texts and text types. "It is likely that the production of appropriate and relevant materials and syllabi for EAP/ESP courses requires an awareness of the range of genres, the ways in which genres span disciplines and, equally, the ways in which they vary according to discipline and perhaps even to sub-discipline" (Holms, 1997, p. 333). In another words, such studies could offer practical implications to those interested in pedagogy- for native and non-native speakers, as well as novice and experienced researchers, in reading and writing in a given discipline. Moreover, as Kanoksilapatham (2005) put it, The rhetorical structure captured by move analysis can be presented in the classroom to raise learners_ consciousness of discipline specific reading skills. The awareness of the conventions of research articles can empower learners to become proficient academic readers. The template proposed by the study builds up a schema for research article readers as to what to expect while reading, in what sequence, and what purposes the authors have while writing an article. Similarly, the template also provides a foundation for less experienced authors to write in such a manner that conforms to the conventions or expectations of the discourse community (p.288).

A two-level application –at the school level and at the ESP level- for genre model is suggested by Bhatia (1997):

School-level writing tasks are often difficult to contextualize too narrowly as the learners have a rather limited experience of the world and a limited awareness of the contexts in which language is likely to be used. It is also difficult to define the actual needs of the learners at that stage of their socio – cognitive development. Hence, the most convenient and productive linguistic

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exposure for them is likely to be broadly generic rather than specific. At the ESP level, on the other hand, learners are more likely to have the discipline-specific and socio-cultural knowledge associated with narrowly defined professional and academic contexts. They may also have other constraints in terms of economy of time and effort, effectiveness, and pragmatic success of the intended communication (p. 283).

From a pedagogical perspective, genres and text structures can aid learners to know and take part in a discourse community. Thus, the results of the study present practical and pedagogical implications for teaching conventions of writing to EFL students; especially, making Persian academics move-sensitive to write English Dentistry introduction in an effective way and increasing learners' language awareness as well.

5. Conclusion

The purpose of the study was to capture the rhetorical structure governing Dentistry English and Persian RAs. As findings of the study showed there are some similarities in the extent of frequency among both corpora. Moves presented in the two groups of data had quite similar frequencies. Move 1 step 1claiming centrality, move 2 step 1acounter-claiming, and move 3 step 1a Announcing present research descriptively and/or purposively were the most commonly employed moves in the corpus under investigation. Another striking similarity was the lack of move 2 step 1cquestion raising, move 2 step 3 Implicit inconsistencies precluding gap signaling and move 3, steps 4,5,6,7 "Summarizing methods, Announcing principal outcomes , Stating the value of the present research, Outlining the structure of the paper" in English and Persian RAs. In addition, the findings implied that English and Persian authors have no tendency to follow Swales' model in writing introduction sections of Dentistry RAs. Moreover, move 1 step 1 "claiming centrality" was realized as the opening move in the majority of RAs. There was also a discrepancy among English and Persian RAs in the order of dominant moves. In English Dentistry RAs, the first most dominant move was move 1 step 1"claiming centrality" the second most dominant move was recognized as move 3, step 1a "Announcing present research descriptively and/or purposively" in both English and Persian Dentistry research articles are the same.

The major limitation of the present study was that its scope was limited to just one discipline, i.e. dentistry, hence not allowing for an exhaustive cross-disciplinary analysis of RAs, i.e. comparing different disciplines. The researchers do not claim that the list of series of moves presented is exhaustive. Furthermore, the structure exhibits rhetorical moves that incorporate several degrees of flexibility in their positions. Some rhetorical moves have more stable positions in the overall organization of dentistry research articles, while others are less stable. A limited number of introduction sections of dentistry RAs were considered in this study. Therefore, the findings of this study can be taken as a point of departure for larger scale studies based on more extensive sample size by comparing cross-disciplinary on introduction sections of theses. The present study was descriptive so further empirical research can be done by comparing research articles written by those who are well-informed from the genre of research articles and those who are not. Genre analysis should not be restricted to a particular genre or a discipline. Although this study was focused on the introduction sections produced in one academic discipline, much work can be done on rhetorical move structures of different sections of RAs produced in other academic disciplines. In the other words, this study can be run in a

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cross-disciplinary way. While for the purpose of move identification the researchers drew upon Swales' (2004) three-move structure, future studies may use other alternative schemes of analysis to analyze moves in RAs from a different vantage point.

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