Generic Structure of Literature Reviews in Research Articles: Iranian and International Journals

[1]Fahimeh Marefat
[2]Mahsa Farahanynia*

[3]Maryam Bolouri
[4]Fariba Chamani
[5]Tahereh Soleimani

Abstract

Investigating the rhetorical patterns of research article (RA) sections elucidates the complex nature of academic literacy, especially, for non-native researchers. Although the literature review (LR) has a central role in establishing the foundation of the study, less clarity is available concerning its unique complexities. This paper thus explores the generic structure of the literature review section (LR) of 122 RAs published in Iranian journals (IrRAs) and international journals (IntRAs) using Swales' (1990) Create A Research Space (CARS) model. The IrRAs (n=61) were selected from seven established Iranian journals and the IntRAs (n=61) were chosen from seven professional journals with an impact factor greater than 1. Two coders identified the moves and steps of several RAs via negotiated coding. The results indicated that both groups had approximately similar patterns regarding the moves and steps. In both groups, 'establishing a territory' (M_1) and 'occupying a niche' (M_3) were the most and least used moves, respectively. Likewise, both groups used M_1 and M_3 to start and finish LR, respectively. A tendency for employing the irregular move patterns in IntRAs and the regular move patterns in IrRAs was also observed. These findings help novice researchers to better tackle the challenges of LR writing.

Keywords: Generic Structure, Literature Review, Moves, Steps, Swales' CARS Model, Applied Linguistics

1. Introduction

Nowadays, the ability to read and write research articles (RAs) has become a necessity as well as a challenge to novice writers across disciplines (Bhatia, 1993; Sheldon, 2011; Swales, 2004). A lack of familiarity with rhetorical preferences and standard practices in the publication of RAs in English can be to the disadvantage of the non-native scholars (NN) (Burgess, 2002; Lillis & Curry, 2010; Sheldon, 2013). Hence, Swales (1990) developed move analysis within the more general field of English for Specific Purposes (ESP) "to describe the communicative purposes of a text by categorizing the various discourse units within the text according to their communicative purposes or rhetorical moves" (Biber, Connor, & Upton, 2007, p. 23). Move analysis can elucidate the complex nature of

---

[1]Professor of Applied Linguistics, fmarefat@atu.ac.ir; Department of English Language and Literature, Allameh Tabataba'i University, Tehran, Iran.

[2]PhD in TEFL (Corresponding Author), m.farahanynia85@yahoo.com; Department of English Language and Literature, Allameh Tabataba'i University, Tehran, Iran.

[3]PhD in TEFL, M.Bolouri9@gmail.com@yahoo.com; Department of English Language and Literature, Allameh Tabataba'i University, Tehran, Iran.

[4]PhD in TEFL, chamanifar56@gmail.com; Department of English, University of Hormozgan, Bandar Abbas, Iran.

[5]PhD Student of TEFL, tsoleimani66@gmail.com; Department of English Language and Literature, Allameh Tabataba'i University, Tehran, Iran.

Chabahar Maritime University
Iranian Journal of English for Academic Purposes ISSN: 2476-3187
IJEAP, 2021, 10(3)) (Previously Published under the Title: Maritime English Journal)

academic literacy for the NN scholars seeking to contribute to the global knowledge (Sheldon, 2013) and make their scholarship visible (Bhatia, 1993; Sheldon, 2011; Swales, 2004).

In the existing literature, the Introduction, Method, Results, and Discussion (IMRD) model has been employed for describing the structural patterns of research articles; however, only a few studies have provided information on the structure of LR (Boote & Beile, 2005; Jian, 2010; Kwan, 2006, 2010). Boote and Beile (2005) maintain that LR has an important role in establishing the foundation of the study and gaining a better understanding of research findings. Indeed, ignoring the centrality of LR can lead to a "narrow conception of the literature review" and per se "an exhaustive summary of prior research" which can, in turn, weaken the quality of research in the long run (Boote & Beile 2005, p. 3). Nevertheless, the unique complexities of LR have not received sufficient consideration. This may be partly due to a large number of RAs that review LR within the Introduction section, thereby obviating the need for exploring LR within the framework of the CARS model (Soler-Monreal, 2015; Tseng, 2018).

Various sections of RAs have been rhetorically analyzed by many researchers (e.g. Kurniawan & Lubis, 2020; Peacock, 2011). However, there are only a few studies analyzing LR sections and they are limited to specific languages or domains (Hsiao, 2015; Rabie & Boraie, 2021). Moreover, such studies have mostly focused on analyzing the LR section of theses and dissertations, instead of RAs. In addition, since the rejection of RAs submitted by Iranian scholars to the IntRAs might be partly due to their lack of familiarity with rhetorical patterns of RAs, a very exciting study would be a comparative study of the rhetorical structures of RAs published in Iranian journals (IrRAs) and international journals (IntRAs). Such a study would hopefully help the early career researchers to write better LRs and raise their chances of getting published in IntRAs. Besides, it might reveal the possible impact of culture on the structural patterns of the RAs. The prior line of research has failed to address this issue. Thus, this paper intends to investigate the rhetorical moves in the LR section of RAs in the field of Applied Linguistics (AL) across Iranian and international journals (IrIntJs). As for the structure of the paper, initially, the theoretical background is presented and the findings of previous studies are reported. Then, the way the data were selected and analyzed is explicated, which is followed by the description of the obtained results. Afterward, the results are discussed, and the implications and suggestions for further research are provided.

2. Literature Review

In move analysis, the general organizational patterns of texts typically consist of a series of moves with their specific purposes which fulfill the overall communicative purpose of the genre. Swales' (1990) Create A Research Space (CARS) model which has been widely used for describing the rhetorical patterns of the RAs, includes three basic moves of establishing a territory, establishing a niche, and occupying a niche. Each move contains multiple elements that together realize the move and are referred to as *steps* (Swales, 1990). The model was originally developed to describe the structure of Introduction in RAs. However, considering the similar structure, content, and rhetorical purpose of Introduction and Literature Review, Kwan (2005) contends that Swales' CARS model can be utilized as an analytical framework to probe the schematic pattern of LR section, as well.

Although Swales (1990) states that each discipline might need certain steps with particular functions, a fundamental assumption is that this model is valid to be used across different disciplines (Dudley-Evans, 2000). Table 1 details the CARS Model.

Table 1: CARS Model of Move Structure in RA Introductions (Swales, 1990, p. 141)

Moves	Steps
Move 1 Establishing territory	Step 1 Claiming centrality
	Step 2 Making topic generalizations
	Step 3 Reviewing items of previous research
Move 2 Establishing a niche	Step 1A Counter claiming
	Step 1B Indicating a gap
	Step 1C Question raising
	Step 1D Continuing a tradition
Move 3 Occupying the niche	Step 1A Outlining purposes
	Step 1B Announcing present research
	Step 2 Announcing principal findings
	Step 3 Indicating RA structure

Despite the burgeoning studies on the IMRD model, Tseng (2018) calls for more research on genre analysis (GA) of LR section in RAs. LR section situates the work in the broad historical research literature (Boote & Beile, 2005). The main purpose of an LR is to justify the value of a current investigation and to show how it is different from what is currently documented in the research literature (Kwan, 2006). Accordingly, writing a focal and integrative LR entails acquiring and developing specific skills and knowledge and a wider audience (Boote & Beile, 2005).

Further exploration of LR can aid AL researchers in constructing a sound theoretical and methodological foundation for their works. Besides, English for Academic Purposes (EAP) practitioners can enrich their instructions regarding LR section of RAs with insights generated through investigation of the rhetorical structure in such studies on LR. Illuminating the prototypical moves of LR section can mitigate graduate students' frustration in reviewing the literature (Hsiao, 2015; Meloy, 2002; Rabie & Boraie, 2021; Soler-Monreal, 2015). In a similar vein, Kwan (2005) also declares the task of reviewing the literature has been documented as a notoriously difficult task in doctoral studies.

Many researchers have analyzed the move structure of various parts of RAs, for instance, the 'Introduction' is studied by Swales (2004), the 'Method' by Peacock (2011), the 'Finding and Discussion' by Kurniawan and Lubis (2020), and the 'Conclusion' section by Sorayyaei Azar, Yi, and Azhar (2020). However, to date studies exploring the move structure of LRs and employing Swales' (1990) CARS model (Jian, 2010; Kwan, 2005, 2006; Kwan, Chan & Lam, 2012) are indeed scarce. The few existing accounts are comparisons of particular languages (English & Chinese in Jian, 2010; Kwan, 2005, 2006) and research domains (two sub-fields of information systems: behavioral and design science research paradigms in Kwan et al., 2012). Furthermore, these studies have mostly focused on the LR section of theses and dissertations; RAs, our concern in the present paper, have however received scant attention (Jian, 2010).

Kwan (2006) studied the rhetorical structure of LR chapters of 20 AL doctoral dissertations and suggested a 3-move pattern to describe the schematic structure of LRs specific to the field. The corpus came from dissertations written by Chinese students based in Hong Kong and English NSs. She reported a significant co-occurrence of Moves 1 and 2, in addition to the irregular and unpredictable order of steps in each move. Some new steps were also identified in Move 2 which highlighted the unique characteristics of LR chapters. She made a comprehensive study, but it was limited to doctoral dissertations with no focus on RAs.

Jian (2010) also explored the schematic structure of LRs in RAs in Chinese and English AL journals and observed that the move structure of Chinese LRs was more straightforward than that of English LRs. His study was a comparative one, focusing on two different languages. In addition, Kwan (2005) reported a higher occurrence of Move 1 in LR chapters of theses whereas in RAs, Jian (2010) observed the highest frequency for Move 2. Drawing upon a conceptual framework developed from the CARS model (Swales, 1990), he performed another study, examined how researchers evaluate prior scholarship in LRs in a corpus of 80 articles collected from four journals in the field of

Chabahar Maritime University
Iranian Journal of English for Academic Purposes   ISSN: 2476-3187
IJEAP, 2021, 10(3))   (Previously Published under the Title: Maritime English Journal)

Information Systems (Kwan et al., 2012). Although this study was limited to one specific field of study, it made a great contribution to the field of rhetorical analysis, as well.

Hsiao (2015) investigated the move distribution and configuration of literature reviews of MA theses written by Taiwanese TEFL graduates following Hsiao and Yu's LR framework (2012). LRs were categorized into low-rated and high-rated and the result proved that high-rated LRs have more complicated move configurations than low-rated ones. In another study, Rabie and Boraie (2021) analyzed LRs in Egyptian-authored Linguistics RAs published in local and international English journals and they found a rhetorical variation in the LRs especially concerning Move 2 and Move 3 based on Kwan's (2006) model. Finally, they proposed a modified version of Kwan's (2006) model.

Previous research suggests that EFL researchers face daunting problems to get published in esteemed journals. Interested in investigating Chinese and Iranian scholars' publishing practices and the challenges they come across, Dong, Fazel, and Shi (2020, p. 251) declared "it could be challenging to follow the English academic writing conventions and styles, and to present an authorial voice." Hence, the present study intends to explore the rhetorical structure of RAs' LR section in IrRAs and IntRAs to help Iranian and other NN scholars in this regard. More specifically, the following research questions are addressed:

Research Question One: What is the frequency of the moves and steps in LR sections of RAs in Applied Linguistics based on Swales' (1990) model?

Research Question Two: To what extent is the frequency of moves and steps in LR sections of RA published in the international and Iranian journals of Applied Linguistics similar or different?

Research Question Three: To what extent are the rhetorical move patterns observed in LR of RAs published in Iranian and international journals of Applied Linguistics similar or different?

3. Methodology

3.1. Corpus

Following Hashemi and Babaii (2013), this study adopted purposive sampling, i.e., sorting out samples that "can provide rich and varied insights into the phenomenon under investigation" (Dörnyei, 2007, p. 126). As a representative sample, we systematically collected 122 RAs published in seven prominent peer-reviewed IrIntJs in AL from 2012 to 2020. To select the leading IrRAs, initially, the journal list of *Scientific Information Database* (2020) was carefully consulted by four experts. The IrRAs with nationally well-established records, tightly linked with AL, indexed in Scopus or Regional Information Center for Science and Technology (ISC), and published in English were sorted out: *Iranian Journal of Applied Language Studies*, *Iranian Journal of Applied Linguistics*, *Issues in Language Teaching*, *Journal of English Language Teaching and Learning*, *Journal of Research in Applied Linguistics*, *Journal of Teaching Language Skills*, and *Teaching English Language (TEL).* As these journals do not have a long history, their back issues were checked and the time interval during which all of the journals were active (from 2012 to 2020) was considered.

To pick the prominent international journals, the lists of the professional journals introduced by Weber and Campbell (2004) and Egbert (2007) were examined. The journals with an impact factor of less than 1 were then omitted. Moreover, the accessibility of the issues led to the exclusion of three journals. Ultimately, the following seven international journals were chosen: *Language Testing*, *English for Specific Purposes*, *System*, *Journal of Second Language Writing*, *Teaching and Teacher Education*, *Modern Language Journal*, and *Foreign Language Annals*. To homogenize the sample across IrIntJs in terms of the year of publication, the same time interval, 2012 to 2020, was set for the international journals.

To avoid subjectivity regarding the article selection, the first RA published in the first issue of each journal volume in each year from 2012 to 2020 was selected. The nationality of the authors of these RAs was also checked to assure that the authors of IrRAs were from Iran and the authors of IntRAs were from countries other than Iran. Among the articles, four were excluded because of their

merged Introduction and LR sections. Finally, 122 RAs, 61 RAs from the Iranian journals and 61 RAs from the International journals came to constitute the corpus of our study.

3.2. Coding

A functional-semantic approach (Kwan, 2006) was adopted to coding. In this process, Swales' (1990) CARS model, comprising three moves and their eleven corresponding steps, was used. To pilot the coding, initially, two coders segmented and analyzed LRs of two RAs together to elaborate on the theoretical and practical definitions of the moves and steps in the CARS model. During this meeting, based on their analysis, they added some other steps to the moves and formed the revised version of the CARS model based on the models presented in the previous studies. The added steps to Move1 were reporting the conclusion of previous studies, narrowing the field, writer's evaluation of existing research, and terminology/definitions. Research questions and hypotheses, summarizing methods, announcing literature review structure, and stating the value of present research were other steps added to Move3.

In the second phase, four randomly selected articles were separately segmented and coded by both coders using the revised version of the CARS model, and a low level of inter-coder reliability (α=.34) was achieved. Then, a debriefing session was held to illuminate the vague concepts and discuss some blurred boundaries observed among the moves and steps. Among the issues raised were the following: one complex sentence at times could be assigned to two steps, and even to different moves and it was difficult to discern the steps of Move1. Yet, the steps of Move3 were more easily identified. Such disputable points were settled as much as possible in this debriefing session.

In the third phase, another eight RAs were coded separately by both coders; however, the unsatisfactory inter-coder reliability of .50 was obtained (Cohen, 1988). Due to the low reliability, another session was held to reach a solution. It was realized that some segments could be assigned to multiple moves, and in some contexts, the borderline between moves and steps became so fuzzy that designating the correct move and step seemed almost impossible. At this point, *negotiated coding* seemed the best solution. In negotiated coding, two or more researchers "actively discuss their respective codes, with an aim to arrive at a final version in which most, if not all, coded messages have been brought into alignment" (Garrison, Cleveland-Inns, Koole, & Kappleman, 2006, p. 3). Furthermore, since revising the model came at the cost of making the coding process quite mystifying and the frequencies of the added steps were very low, they were omitted and the original CARS model was used in the main coding.

In the last phase, both coders segmented the texts of 122 selected RAs into different moves and steps, and in a meeting, they performed negotiated coding until an acceptable agreement of .78 was reached. Using Cohen's kappa, the inter-coder reliability values of .74, .77, and .84 were obtained for Moves 1, 2, and 3, respectively, which also confirmed the satisfactory inter-coder reliability of these moves as they were all above .7 (Cohen, 1988).

4. Results

4.1. Frequency of Moves and Steps in LR of RAs

The first research question addressed the frequency of the moves (M) and steps (S) in LRs of the RAs. The results are reported in Table 2. In the tables and figures in this section, M_1, M_1S_1, M_1S_2, and M_1S_3 signify Move1, the first step of Move1, the second step of Move1, and the third step of Move1, respectively. M_2, M_2S_{1A}, M_2S_{1B}, M_2S_{1C}, and M_2S_{1D} stand for Move2, Step1A in Move2, Step1B in Move2, Step1C in Move2, and Step1D in Move2, respectively. M_3, M3S1A, M3S1B, M3S2, and M3S3 denote Move3, Step1A in Move3, Step1B in Move3, Step2 in Move3, and Step3 in Move3, respectively.

Table 2: Frequencies of Moves and Steps in LR of RAs

Moves	F_M (F_{RA}) [*]	%	Steps	F_S(F_{RA})	%
M_1	339 (122)	51.8	M_1S_1	45 (39)	6.9
			M_1S_2	76 (59)	11.6
			M_1S_3	218 (122)	33.3
M_2	216 (93)	32.8	M_2S_{1A}	12 (12)	1.8
			M_2S_{1B}	114 (84)	17.3
			M_2S_{1C}	41 (37)	6.3
			M_2S_{1D}	49 (33)	7.4
M_3	100 (87)	15.4	M_3S_{1A}	26 (25)	4.0
			M_3S_{1B}	74 (60)	11.4
			M_3S_2	0 (0)	0
			M_3S_3	0 (0)	0
Total	655	100		655	100

*F_M(F_{RA})=Number of moves (Number of articles using those moves); FS(FRA)= Number of steps (Number of articles using those steps); %= Percentage of moves/steps out of total number of moves/steps (n=655).

As Table 2 shows, 655 moves were observed in the corpus. M_1 and M_1S_3 occurred in all the RAs (n=122), indicating that they are the obligatory move and step, respectively. Strangely enough, M_3S_2 and M_3S_3 did not appear in any of the RAs; therefore, it can be declared that these two steps are not required in LR section. They were hence excluded from the subsequent analyses. The other moves and steps were found to be optional. Some extracts of LR of some RAs and their corresponding moves and steps are provided in Appendix A.

The highest and the lowest frequencies belonged to M_1 (n=339, 51.8%) and M_3 (n=100, 15.4%), respectively. Within M_1, M_1S_3 with the frequency of 218 (33.3%) and M_1S_1 with the frequency of 45 (6.9%) enjoyed the status of the highest and the lowest used steps, respectively. Regarding M_2, M_2S_{1B} (n=113, 17.3%) and M_2S_{1A} (n=12, 1.8%) had the most and the least frequencies, respectively. As to M_3, the highest and the lowest frequencies were reported for M_3S_{1B} (n=75, 11.4%) and M_3S_{1A} (n=26, 4%), respectively. The frequencies of the moves and steps in the RAs are illustrated in Figure 1.
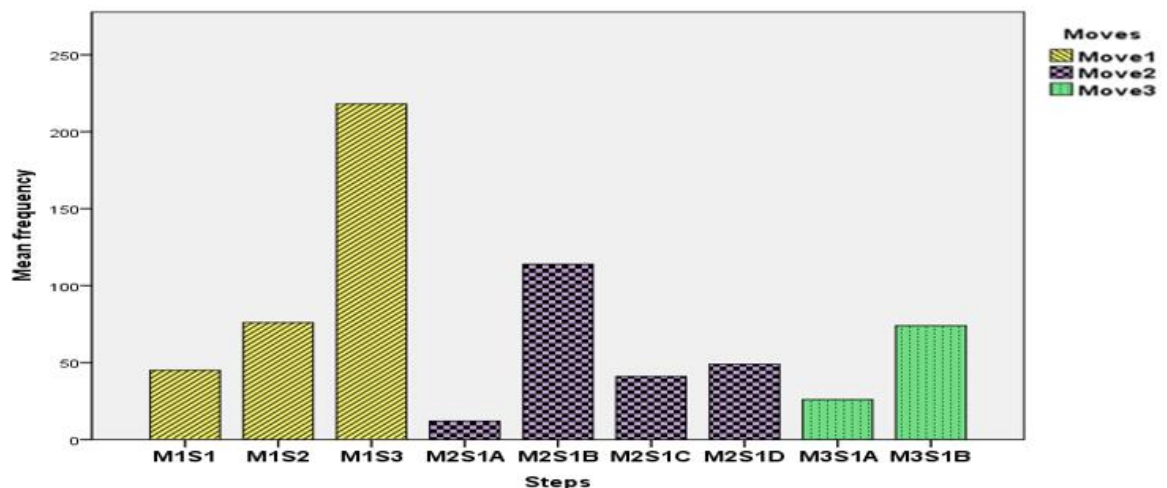

Figure 1: Frequencies of Steps in Each Move in LRs of RAs

4.2. Frequency of Moves and Steps in LR of RAs in Iranian and International Journals

To answer the second research question, the frequencies of the moves and steps in LR of IrRAs and IntRAs were compared. Table 3 presents the results.

Table 3: Frequencies of Moves and Steps in LR of IrRAs and IntRAs

International RAs					Iranian RAs					
Moves	$F_M(F_{RA}^*)$	%	Steps	$F_S(F_{RA})$	%	Moves	$F_M(F_{RA})$	%	Steps	$F_S(F_{RA})$	%
M_1	171(61)	26.2	M_1S_1	17(16)	2.6	M_1	168(61)	25.6	M_1S_1	28(23)	4.3
			M_1S_2	39(30)	6.0				M_1S_2	37(29)	5.6
			M_1S_3	115(61)	17.6				M_1S_3	103(61)	15.7
M_2	117(45)	17.8	M_2S_{1A}	7(7)	1.1	M_2	99(48)	15.1	M_2S_{1A}	5(5)	.8
			M_2S_{1B}	58(39)	8.7				M_2S_{1B}	56(45)	8.5
			M_2S_{1C}	27(24)	4.1				M_2S_{1C}	14(13)	2.1
			M_2S_{1D}	25(18)	3.8				M_2S_{1D}	24(15)	3.7
M_3	51(37)	7.8	M_3S_{1A}	8(8)	1.2	M_3	49(30)	7.5	M_3S_{1A}	18(17)	2.7
			M_3S_{1B}	43(34)	6.7				M_3S_{1B}	31(26)	4.8
Total	339	51.8		339	51.8	Total	316	48.2		316	48.2

*F_{RA}=Number of articles

As Table 3 illustrates, M_1 and M_1S_3 were observed in all IrRAs and IntRAs. The most and the least frequently used moves were M_1 and M_3, correspondingly, in both IrRAs (n_{M1}=168, 25.6% and n_{M3}=49, 7.5%) and IntRAs (n_{M1}=171, 26.2% and n_{M3}=51, 7.8%). Regarding the steps, M_1S_3 was the most frequent step in both IrRAs (n=103, 15.7%) and IntRAs (n=115, 17.6%) whereas M_2S_{1A} was the least common step in IntRAs (n=7, 1.1%) and IrRAs (n=5, .8%). M_1S_1 and M_1S_3 were the least and the most frequently used steps within M1 in both IrRAs (n_{M1S1}=28, 4.3% and n_{M1S3}=103, 15.7%) and IntRAs (n_{M1S1}=17, 2.6% and n_{M1S3} =115, 17.6%). As to M_2, M_2S_{1A} and M_2S_{1B} were the least and the most frequent steps, respectively, in both IrRAs (n_{M2S1A}=5, .8% and n_{M2S1B}=56, 8.5%) and IntRAs (n_{M2S1A}=7, 1.1% and n_{M2S1B} =58, 8.7%). Regarding M_3, greater frequency was obtained for M_3S_{1B} than for M_3S_{1A} in both IntRAs (n_{M3S1B}=43, 46.7% and n_{M3S1A} =8, 1.2%) and IrRAs (n_{M3S1B}=31, 4.8% and n_{M3S1A} =18, 2.7%). These results reveal that the pattern of moves and steps were approximately similar in IntRAs and IrRAs.

Further, fewer moves were observed in IrRAs (n=316, 48.2%) than in IntRAs (n=339, 51.8%). All three moves (M_1, M_2, and M_3) occurred more in IntRAs than in IrRAs. Within M_1, M_1S_1 was more common in IrRAs, while M_1S_3 was more frequent in IntRAs. As to M_2, all steps, but M_2S_{1C}, had a bit lower frequencies in IrRAs than in IntRAs. M_2S_{1C} in IntRAs (n=27, 4.1%) was much larger than that in IrRAs (n=14, 2.1%). Considering M_3, the frequency of M_3S_{1A} in IrRAs (n=18, 2.7%) was considerably greater than that in IntRAs (n=8, 1.2%). Conversely, the frequency of M_3S_{1B} in IrRAs (n=31, 4.8%) was noticeably lower than that in IntRAs (n=43, 6.7%). Figure 2 depicts these findings.
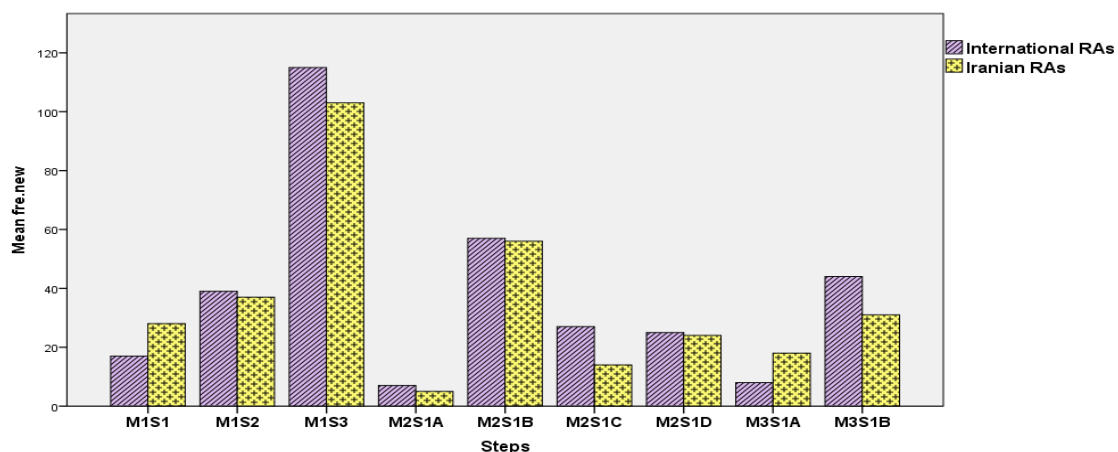

Figure 2: Frequencies of Steps in Each Move in LR of International and Iranian RAs

Also to discover any significant relationship in the frequencies of the moves and steps in IrRAs and IntRAs, the Chi-square test was run and it was found that for all moves and steps, the relationship was significant for IrRAs and IntRAs (X^2=13.19, df=8, p=.01). However, the relationship between IntRAs and IrRAs was not significant regarding M_1 and its steps (X^2=3.37, df=2, p=.18) and M_2 and

Chabahar Maritime University
Iranian Journal of English for Academic Purposes   ISSN: 2476-3187
IJEAP, 2021, 10(3))   (Previously Published under the Title: Maritime English Journal)

its steps (X^2=3.16, df=3, p=.36). On the contrary, the relationship between IrRAs and IntRAs in terms of M_3 and its steps was significant (X^2=6.01, df=1, p=.01).

4.3 Move Patterns in Iranian and International RAs

The last research question addressed the similarities and differences of the rhetorical move patterns in LRs of IrRAs and IntRAs. Five general patterns were detected:

- Single move pattern (consisting of one move in the CARS model, e.g., M_1, M_2, or M_3);
- Regular 2-move pattern (consisting of two moves similar to the CARS model sequence, e.g., M_1-M_2, M_2-M_3, or M_1-M_3);
- Irregular 2-move pattern (consisting of two moves in a different order, e.g., M_3-M_1, M_2-M_1, or M_3-M_2);
- Regular 3-move pattern (consisting of three moves similar to the CARS model sequence, e.g., M_1-M_2-M_3);
- Irregular 3-move pattern (consisting of three moves in a different order, e.g., M_2-M_3-M_1, M_2-M_1-M_3).

Table 4 reports the move patterns of IrRAs and IrRAs.

Table 4: Frequencies of RAs, IntRAs, and IrRAs Using Different Move Patterns

Move patterns	Total		International RAs		Iranian RAs	
	F_{RA}*	%	F_{RA}	%	F_{RA}	%
Single move	26	21.3	13	10.7	13	10.7
Regular 2-move	13	10.7	3	2.5	10	8.2
Irregular 2-move	18	14.8	10	8.2	8	6.6
Regular 3-move	34	27.9	8	6.6	26	21.3
Irregular 3-move	31	25.4	27	22.1	4	3.3

*F_{RA}= Number of RAs.

Table 4 suggests that overall, the greatest and the least number of RAs had the regular 3-move (n=34, 27.9%) and regular 2-move (n=13, 10.7%) patterns, respectively. Most IntRAs had an irregular 3-move pattern (n=27, 22.1%) while the regular 2-move pattern was the least frequently used pattern in them (n=3, 2.5%). Most IrRAs adhered to the regular 3-move pattern (n=26, 21.3%) and the least number of them (n=4, 3.3%) had the irregular 3-move pattern.

The comparison indicated that the number of IrRAs employing the single move pattern was the same as that of IntRAs using it (n=13, 10.7%). Compared to IntRAs (n=3, 2.5%), IrRAs (n=10, 8.2%) had a greater tendency to follow the regular 2-move pattern. The number of IntRAs following the irregular 2-move pattern (n=10, 8.2%) was somewhat more than that of IrRAs using it (n=8, 6.6%). The number of IntRAs adhering to the regular 3-move pattern (n=8, 6.6%) was considerably smaller than that of IrRAs implementing it (n=26, 21.3%) while the irregular 3-move pattern was noticeably more frequent in IntRAs (n=27, 22.1%) than in IrRAs (n=4, 3.3%).

The results also revealed that 59% of IrRAs (n=36) and 18% of IntRAs (n=11) had the regular move patterns (regular 2- and 3-move patterns), indicating the Iranian researchers' greater tendency to follow the Swales (1990) model. Conversely, 60.7% of IntRAs (n=37) and 19.7% of IrRAs (n=12) used irregular move patterns (irregular 2- and 3-move patterns), substantiating the international researchers' inclination to deviate from this model. The results of the Chi-square test also confirmed the significant relationship between the rhetorical patterns of IrRAs and IntRAs (X^2=29.6, df=4, p=.00).

The move patterns of each analyzed article are provided in Appendix B. A closer analysis of these patterns shows that establishing territory (M_1) was used in all move patterns, indicating the importance of this move in LRs. For the single move pattern, just M_1 was used in both IrRAs and IntRAs. Considering the regular and irregular 2-move patterns, excluding two RAs, all RAs (n=31) used M_1 and M_2. Regarding the regular and irregular 3-move patterns, apart from 15 RAs, the

Chabahar Maritime University
Iranian Journal of English for Academic Purposes   ISSN: 2476-3187
IJEAP, 2021, 10(3))   (Previously Published under the Title: Maritime English Journal)

remaining (n=65) started with M_1 and ended with M_3. In general, a great number of RAs in both IrIntJs started LR section with M_1 and ended it with M_3.

On the whole, the results suggest that establishing territory (M_1) and reviewing items of previous research (M_1S_3) are the obligatory move and step of LRs, respectively. Indicating a gap (M_2S_{1B}) and announcing present research (M_3S_{1B}) are the most important steps of Move2 and Move3 in LRs of RAs. Moreover, IntRAs and IrRAs have a similar structure of moves and steps as in both groups of RAs; M_1 and M_3 were the most and the least implemented moves, sequentially, and M_1S_3 from M_1, M_2S_{1B} from M_2, and M_3S_{1B} from M_3 were the most frequently used steps. There is a greater tendency to claim centrality (M_1S_1) and outline purposes (M_3S_{1A}) in IrRAs; while, reviewing items of previous research (M_1S_3), question raising (M_2S_{1C}), and announcing present research (M_3S_{1B}) gain importance in IntRAs. Among five move patterns of RAs, IrRAs tend to follow the regular 2- or 3-move patterns while IntRAs generally adhere to the irregular 2- or 3-move patterns. Furthermore, it seems that most IrRAs and IntRAs are inclined to start their LR by reviewing items of previous research (M_1S_3) and end it with announcing present research (M_3S_{1B}).

5. Discussion

5.1. Moves and Steps in LR Section of RAs

It was found that M_1 and M_3 were the most and the least frequently employed moves in RAs respectively. With respect to the first research question, perhaps the most interesting finding was the absence of the steps of announcing principal findings and indicating the structure of the paper of the last move. The absence of the last two steps of M_3 led us to exclude these two steps in the following stages of analysis. Findings similar to this are inevitable as each writer chooses to omit a certain move/step or to reorder them to suit their rhetorical purposes; however, finding the established use and systematic variation of the CARS model in one particular discipline, for example, AL, as Dudley-Evans (2000) contends, is priceless.

The obtained results, concerning the maximum frequency of M1, corroborated those of Kwan (2005) and were in conflict with Jian's (2010) observation that the highest frequency was reported for only M2. The findings were also partly consistent with those of Rabie and Boraie (2021), as they found both M1 and M2 frequent in the rhetorical structure of LR among the local and international English-medium journals, written by Egyptian researchers while in this study, only M1 recorded the highest frequency. The subjective preference of journal editorial and review board members, areas of research within AL, years of publication, submission guidelines, and the corpora size can account for these discrepancies. This could also be explained by the significance of M1, as an inescapable part of any LRs, as it shows how a given study is distinct from the previously published ones (Jian 2010) and locates it within the social and disciplinary context (Soler-Monreal, 2015). Moreover, as M_1 in Swales' (1990) CARS model introduces the general terrain of the research area, its frequent appearance in IrRAs and IntRAs is not surprising.

A possible explanation for the minimum distribution of M_3 in the RAs may be the existence of a separate section entitled *purpose of the study*. It supports Rabie and Boraie's (2021) results that revealed the move with the minimum frequency was M3 because it contributes to the significance and originality of the study and could be stated elsewhere in the RA. In addition, it supports Kwan's (2006) statement about the optionality of M3. The authors of RAs are expected to obey the submission regulations set by journals. Moreover, with respect to the stringent rules of most journals on word count, the repetition of why, what, and how of the study (M_3S_{1A}, M_3S_{1B}) is deemed excessive in the review section, and thus preferably removed. Similarly, when the authors are limited by the guidelines constraints, they prefer to resort to the most efficacious step(s) in which *establishing territory* can be accomplished; M_1S_3, in this regard, is the only operative step that can prepare the background for the rest of the study.

Our results for the frequency of M_3 corroborates Kwan's (2005) finding who showed a single pattern step (M_3S_{1B}) of M_3 in the majority of RAs. The distribution of steps for M_2 suggests that indicating the gap in previous research (M_2S_{1B}) is a popular strategy among Iranian and international

Chabahar Maritime University
Iranian Journal of English for Academic Purposes ISSN: 2476-3187
IJEAP, 2021, 10(3)) (Previously Published under the Title: Maritime English Journal)

researchers. Consequently, it is expected that the next step applied by the writer will be the adoption of M_3S_{1A} or M_3S_{1B} to make up the gap in the literature by announcing the aim or the theoretical framework of the study (Kwan, 2005). As previously stated, the existence of a separate section for the study naturally will obviate the need for using M_3S_{1A}; therefore, it can be stated that the use of M_3S_{1B} might be the most needed step in move 3 to occupy the niche economically.

5.2. Moves and Steps in LR Section of IrRAs and IntRAs

Concerning the number of moves and steps in the generic structure of LR section in IrRAs and IntRAs, the high frequency of M_1 in both journal types was conspicuous. While, in general, IntRAs benefitted more from all three moves in the CARS model, IrRAs outnumbered IntRAs in employing M_1. In contrast, the frequency of M_2 and M_3 showed the reverse patterns of being higher in IntRAs. In parallel, both journal types recorded a similar pattern in using the most and least frequent moves: M_1 the highest and M_3 the lowest percentage of use.

RAs in IntRAs benefitted more from the CARS model and this could be explained by authors' familiarity with the genre structure of the RAs or their expertise in working in this tradition. Rabie and Boraie (2021) rightly claim that NS of English, as researchers, had benefitted from the academic instruction that puts great emphasis on genre knowledge in academic writing, compared to the others that are held in mother language or might not prioritize this knowledge. As AL is interested in the study of the English language and culture and has been under the influence of English-speaking scholars, it is quite reasonable that NN scholars might require an extensive period of trial and error to achieve a comprehensive understanding of various generic structures. Besides, the scholarly dominance and influence of native researchers have been discussed in a plethora of studies (Canagarajah, 2002; Sheldon, 2011; Swales, 2004). This can, in part, explain the ownership of the linguistic structures that have been realized by three moves and the respective steps in the CARS model.

Further analysis revealed that both IrRAs and IntRAs frequently used M_1S_3, M_2S_{1B}, and M_3S_{1B} in similar proportions; however, the minimum frequencies of M_1S_1, M_2S_{1A}, and M_3S_{1A} were not on a par with each other. The high frequency of only reviewing the previous studies (M_1S_3), indicating a gap (M_2S_{1B}), and presenting the research aim (M_3S_{1B}) in the corpora can indicate a terser style of the CARS model in LRs of the recent RAs in IrIntJs. Furthermore, space constraints force the authors to opt for the most effective step to convey their messages. Claiming centrality and outlining purpose occurred at the lowest percentage in the corpora of IntRAs, yet they were of strong preference in the IrRAs. Perhaps, by stating the relevance and importance of the research area, NN researchers are likely to stress the significance of their study; consequently, this can diminish the probability of rejection. From another perspective, the higher frequency of the least popular steps among all three moves, as the results concerning the first research question have shown, can account for the unfamiliarity of NN scholars with the corpus of the English for Publication Purposes (EPP) (Flowerdew, 2013; Hyland, 2009).

The articles published in the IntRAs recorded a higher use of M_2S_{1A}. Kwan (2005) rightly states that the degree of negativity is stronger in M_2S_{1A}, counter-claiming than that of M2S1B, gap indicating. In a different line of discussion, some studies (Burgess, 1997, 2002; Martín, 2003, 2005; Moreno, 2010) found that NN researchers are inclined to delete M_2 as they do not feel comfortable pinpointing the pitfalls of other researchers who might be their colleagues. Some researchers in non-Anglophone countries tend to evade negating work by scholars from Anglophone countries or colleagues as they might be in interaction with them (Sheldon, 2013). Similarly, this study showed Iranian researchers are likely to avoid steps concerned with strong counter-claiming.

Moreover, the use of M_2S_{1A} with its respective negativity can be concerned with the authors' 'selves' too. The representation of the author's identity in the form of writing in any RA is *self* and each *self* could entail particular language choices (Mckinley, 2017). The representation of *self* is in close relationship with the cultural setting. For example, in collective cultures, similar to the context of the current study, researchers are reluctant to criticize the work of their colleagues. In contrast, in the communities where individualism is dominant, the authors feel free to mention the gap in the

Chabahar Maritime University
Iranian Journal of English for Academic Purposes ISSN: 2476-3187
IJEAP, 2021, 10(3)) (Previously Published under the Title: Maritime English Journal)

previous studies. Individualistic cultures tend to keep the different aspects of life separate; the first concern of the members of collective cultures, however, is whether they know the people or not as they are likely to diffuse many aspects of life together (Hofstede, 2011).

5.3. Rhetorical Move Patterns in IrRAs and IntRAs

To see if the rhetorical move patterns of IrRAs and IntRAs follow Swales' (1990) CARS model, a thorough analysis revealed that while IrRAs mostly follow the regular 3-move pattern, IntRAs tend to use the irregular 3-move. The lowest frequency of 2-move patterns implies their unpopularity among both Iranian and international researchers. By the same token, while IrRAs used the regular 2-move pattern, IntRAs favored irregular 2-move patterns. The strong preference of regular patterns in both 2-move and 3-move structures in IrRAs can indicate the establishment of the CARS model among Iranian authors.

The pressure to publish may compel Iranian authors to choose the most guaranteed way of adopting a robust model of CARS to fit the structure of LR. Besides, little or no formal training in how to analyze and synthesize the literature (Boote & Beile, 2005) is likely to reduce the possibility of recursion, and thus increase the chances of adopting straightforward styles. These results accord with Jian's (2010) earlier observations of following a straightforward pattern in LR section of applied linguistics RAs by Chinese authors, and a nonlinear pattern presented in articles by native authors in IntRAs. Arguably, the complexity of the rhetorical structures of moves and the obscure interpretation of each step make writing LR demanding for NN researchers (Swales, 1990, 2004). They are thus likely to resort to the regular pattern of M_1-M_2-M_3.

Previous research confirms the association between the generic structure of RAs and the socio-cultural context of researchers (Moreno, 2010; Mur-Dueñas, 2011). In other words, the established conventions of manuscript submissions and article publications are likely to be influenced by the exigencies of academic contexts, editorial and review boards, and the training of novice writers and researchers in EFL contexts. Writing does not occur in a vacuum, and it is a reflection of the social situation, in which it happens (Paltridge, 2013), and the socio-cultural background of the authors (Mckinley, 2017).

From another point of view, writing style has shown some tendency toward informality in recent years (Hyland & Jiang, 2017), which is reflected in seeking ways to establish interactivity, as well as in resorting to first-person pronouns in academic prose (Hyland, 2004). Although it is difficult to trace the exact features of informality in academic writing due to its blurry definition (Hyland & Jiang, 2017), deviating from the classic and widely-used framework of CARS can be considered as a symptom of informality in the context of this study.

Hyland and Jiang (2017, p. 41) further added that the main purpose of formality is "to avoid ambiguity and misinterpretation by minimizing the context-dependence and fuzziness of expressions, while, in contrast, informality rejects stuffy orthodoxy to project a relaxed and approachable persona." Consequently, concerning the enormous influx of RAs by native and NN researchers, it can be inferred that native researchers might be inclined to demarcate their prose by maximizing the fuzziness of the moves and orders. Paradoxically, students in academic writing classes are strongly advised to avoid informality (Swales & Feak, 2012) prior to entering the RA publication challenges. Researchers in EFL contexts are likewise willing to minimize any possibilities of misinterpretation and stick to the classical order of the CARS model.

Two-move patterns being predominantly associated with M_1 and M_2 is in resonance with Kwan (2005)'s findings, where the M_1-M_2 pattern was followed by the frequent irregular 3-move pattern. Various studies have reported the cyclic occurrence of M_1 and M_2 in Introductions, particularly when merged with LR section (Hopkins & Dudley-Evans, 1988; Posteguillo, 1990). Moreover, Swales (1990) stated that M_2 has the iteration feature of niche establishment, not only near the end of LR, but at points of individual study reviews, leading to the recursion of M_1, M_2, and M_3. Although Kwan (2005) confirmed the occurrence of M_1-M_2, she further stressed that the steps of each move do not follow a fixed sequential pattern in LR, as they surfaced in a recurrent fashion in this study.

Chabahar Maritime University
Iranian Journal of English for Academic Purposes   ISSN: 2476-3187
IJEAP, 2021, 10(3))   (Previously Published under the Title: Maritime English Journal)

The majority of IrRAs and IntRAs, following the 3-move pattern, started their LRs with M1 and ended with M3, irrespective of the recurrence of some moves between M1 and M3. Likewise, the pattern of LRs opening with M_1 and ending it with M_3 was comparable in IrRAs and IntRAs. The higher frequency of cyclic patterns of some moves between them could indicate the authors' attempt to narrow down the focus of study as they proceed. In other words, the researchers have to resort to multiple uses of M_1, M_2, or M_3 to approach the point of departure; the impact of the topic of research on the iteration of the moves cannot be ignored, though. For example, Anthony's (1999) study on the Introductions of articles in Software Engineering revealed that this developing field in the 1990s made the authors use cycles of moves to provide detailed background information; thereupon, the researchers had to have numerous pairings of M_1-M_2 with each M_2 being followed by another M_3 in the end, which ultimately led to longer 3-move patterns in the Introductions.

The frequency of each step within M_1, to start LR, and M_3, to end LR was further analyzed. The greatest space was devoted to M_1S_3 in both IrRAs and IntRAs; however, IntRAs benefitted more from this move compared to IrRAs. The results indicate that M_1S_3 presenting the background information is the commonest way to establish the territory. Interestingly, M_3S_{1B} was another popular step to finish LR section in both groups of journals. Similarly, IntRAs outnumbered IrRAs in the use of this step in wrapping up their LRs. These relationships were found to be significant in both opening and closing moves used in IrRAs and IntRAs. That a large portion of LRs ended with stating the methodological considerations of research might be attributed to the significant role of data collection and analysis in RAs. Also, it smoothly links LR to the next section of the article, method.

6. Conclusion

We examined and compared the rhetorical patterns of LRs in the RAs published in IrIntJs in terms of moves and steps, following Swales' (1990) CARS model. In a nutshell, it is now possible to state that both groups of IrIntJs were of similar preference in the adoption of the desired moves and steps in the opening and closing of LRs: M_1S_3 and M_3S_{1B}. The infrequent occurrence of M_2 in both groups of RAs was also observed. On the other hand, presenting the present work (M_3) recorded the higher percentages of use in LRs. As this move is associated with the methodological thoroughness of the adopted approach, the researchers of all RAs were aware of its generic features, regardless of their native language, and aimed to exhibit the efficiency and strength of their study in this section.

The respective analysis of the data highlighted the subtle variations in LRs of RAs. The consistent deployment of regular rhetorical patterns by NN scholars was likely to assist them to foreground the significance of their studies, find the ways into the publication arena, and attain research validation. IntRAs tended to deviate from regular patterns and review the available literature with irregular generic structures. This can be explained, up to a point, by the intellectual power of native researchers (Lillis & Curry, 2006). Creative use of moves on the part of international scholars may be attributable to their sense of authority. By giving leeway to innovative cyclic patterns of moves, they are likely to establish, sustain or change the requirements of RAs publications (Biber et al., 2007). The tendency of IntRAs to deviate from regular patterns and preference for the standard 3-move patterns in IrRAs can provide insights for researchers and scholars in the field of applied linguistics.

The findings of this study are relevant to both ESP practitioners and policy-makers involved in publications, across academic, and have several practical applications. The present work can offer a framework in ESP and EAP programs to assist NN students and junior researchers to attain recognition, and transcend the visibility of their academic work beyond the national borders. Offering the framework consisting of the competencies concerning Genre theory and corpus analysis EAP research streams can influence the quality of the RAs and current EAP programs (Ding & Bruce, 2017).

Although Swales' (1990) CARS model has been "the most influential approach to the analysis of language use in ESP to date" (Basturkmen, 2010, p. 44), it has not reached its full potentials in pedagogical contexts, this study can contribute to a better understanding of the importance of Swales' (1990) CARS model, and rhetorical organization, in practice, in EAP and EAP classes. Given that

Iranian scholars might find the regular organization a safe and guaranteed way to make their study visible internationally, meeting the standard criteria such as Swales' (1990) CARS model can raise the possibility of getting published for the NN scholars.

This particular research finding also points to the need to encourage the journals in non-Anglophone centers, such as Iran, to leave some room for the creative uses of the move patterns. The rhetorical organization of RAs cannot be treated as a *Craft Model* which emphasizes the observation of experienced scholars and leaves no place for innovation and personal growth (Crandall, 2000; Edge, 2011); it entails application and dialogic relationship, similar to what is discussed in ELT pedagogy as praxis which is premised on the ability to reflect critically on practice (Edge, 2011; Kumaravadivelu, 2006). A broad contribution, given the importance of publishing in IntJs, can be to resolve the difficulties NN authors face when writing an RA in a foreign language, and this, per se, can contribute to the "democratization of knowledge across global academia" (Sheldon, 2013, p. 260).

The discussed findings are limited to the corpus of this study. There are still many unanswered questions about the schematic development of LR in both RAs and theses. Further studies, particularly comparative ones, are required to gain a better understanding of varied sections of RAs in different contexts are needed (Burgess, 2002; Lillis & Curry, 2010; Moreno, 2010; Mur-Dueñas, 2011; Rabie & Boraie, 2021). To develop a full picture of the generic structure of LRs, additional studies, investigating a greater number of RAs and increasing the possibility of generalizations can be of significant value. Additionally, the small corpus of article LRs (122 RAs from the Iranian and International journals, published between 2012 and 2020) and limited access to the journals' issues could be stated as other limitations of the study. Therefore, larger samples investigating more recent RAs from different journals are necessary to verify whether the cross-cultural differences between Iranian NNSs and NSs of English identified in this study can be generalized.

References

Anthony, L. (1999). Writing research articles introductions in software engineering: How accurate is a standard model? *IEEE Transactions on Professional Communication, 42*, 38-45.

Basturkmen, H. (2010). *Developing courses in English for specific purposes*. London: Palgrave Macmillan.

Bhatia, V. (1993). *Analyzing genre: Language use in professional settings*. London: Longman.

Biber, D., Conner, U., & Upton, T. (2007). *Discourse on the move*. Amsterdam: John Benjamins.

Boote, D. N., & Beile, P. (2005). Scholars before researchers: On the centrality of the dissertation literature review in research preparation. *Educational Researcher*, *34*(6), 3-15.

Burgess, S. (1997). *Discourse variation across cultures: A genre-analysis study of writing on linguistics* (Unpublished doctoral dissertation). University of Reading, UK.

Burgess, S. (2002). Packed houses and intimate gatherings: Audience and rhetorical structure. In J. Flowerdew (Ed.), *Academic discourse* (pp. 196-215). London: Pearson Education.

Canagarajah, S. (2002). *A geopolitics of academia writing*. Pittsburgh, PA: University of Pittsburgh Press.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. New York: Academic Press.

Crandall, J. J. (2000). Language teacher education. *Annual Review of Applied Linguistics*, *20*, 34-55.

Ding, A., & Bruce, I. (2017). *The English for academic purposes practitioner: Operating on the edge of academia*. New York: Springer.

Dong, Y., Fazel, I., & Shi, L. (2020). Writing for scholarly publication among TEFL professionals in the Chinese and Iranian contexts: A comparative study. In M. Riazi, L. Shi, & K. Barloui (Eds.), *Studies and essays on learning, teaching and assessing K2 writing in honour of Alister Cumming* (pp. 243-279). Newcastle: Cambridge Scholars Publishing.

Chabahar Maritime University
Iranian Journal of English for Academic Purposes   ISSN: 2476-3187
IJEAP, 2021, 10(3))   (Previously Published under the Title: Maritime English Journal)

Dudley-Evans, T. (2000). Genre analysis: A key to a theory of ESP? *Iberica Revista de la asociacion Europea de Lenguas para Fines Especificos*, *2*, 3-11.

Edge, J. (2011). *The reflexive teacher educator in TESOL: Roots and wings*. New York: Routledge.

Egbert, J. (2007). Quality analysis of journals in TESOL and applied linguistics. *TESOL Quarterly*, *41*, 157-171.

Flowerdew, J. (2013). English for research publication purposes. In B. Paltridge & S. Starfield (Eds.) *The Handbook of English for Specific Purposes* (pp. 301-321). Malden, MA: Wiley-Blackwell.

Garrison, D. R., Cleveland-Innes, M., Koole, M., & Kappelman, J. (2006). Revisiting methodological issues in the analysis of transcripts: Negotiated coding and reliability. *The Internet and Higher Education*, *9*, 1-8.

Hashemi, M. R., & Babaii, E. (2013). Mixed methods research: Toward new research designs in applied linguistics. *Modern Language Journal*, *97*, 828–852.

Hofstede, G. (2011). Dimensionalizing cultures: The Hofstede model in context. *Online Readings in Psychology and Culture*, *2*(1). https://doi.org/10.9707/2307-0919.1014.

Hopkins, A., & Dudley-Evans, T. (1988). A genre-based investigation of the discussion sections in articles and dissertations. *English for Specific Purposes, 7*, 113-121.

Hsiao, C. H. (2015). Genre analysis of low-rated and high-rated literature reviews by EFL postgraduates. *International Journal of English Language Teaching*, *3*(1), 1-19.

Hyland, K. (2004). *Disciplinary discourses: Social interactions in academic writing*. Ann Arbor, MI: University of Michigan Press.

Hyland, K. (2009) *Academic discourse: English in a global context*. London:Bloomsbury.

Hyland, K., & Tse, P. (2004). 'I would like to thank my supervisor': Acknowledgements in graduate dissertations. *International Journal of Applied Linguistics*, *14*, 259-275.

Hyland, K. & Jing, F. (2017). Is academic writing becoming more informal? *English for Specific Purposes*, *45*, 40-51.

Jian, H. (2010). The schematic structure of literature review in research articles of applied linguistics. *Chinese Journal of Applied Linguistics*, *33*(5), 15-27.

Kumaravadivelu, B. (2006). TESOL methods: Changing tracks, challenging trends. *TESOL Quarterly*, *40*, 59-81.

Kurniawan, E., & Lubis, A. H. (2020). A comparative move analysis on the qualitative and quantitative findings and discussion sections written by EFL undergraduate students. *Asian ESP Journal*, *16*(1), 137-162.

Kwan, B. S. C. (2005). *A genre analysis of literature reviews in doctoral theses* (Unpublished doctoral dissertation). City University of Hong Kong, Hong Kong.

Kwan, B. K. C. (2006). The schematic structure of literature reviews in doctoral theses of applied linguistics. *English for Specific Purposes*, *25*, 30-55.

Kwan, B. S. C. (2010). An investigation of instruction in research publishing offered in doctoral programs: The Hong Kong case. *Higher Education*, *59*, 55-68.

Kwan, B. S., Chan, H., & Lam, C. (2012). Evaluating prior scholarship in literature reviews of research articles: A comparative study of practices in two research paradigms. *English for Specific Purposes*, *31*, 188-201.

Lillis, T., & Curry, M. (2006). Professional academic writing by multilingual scholars. *Written Communication*, *23*, 3-35.

Lillis, T., & Curry, M. (2010). *Academic writing in a global context*: *The politics and practices of publishing in English*. London: Routledge.

Martín, M. P. (2003). A genre analysis of English and Spanish research paper abstract in experimental social sciences. *English for Specific Purposes, 22*, 25-43.

Martín, M. P. (2005). *The rhetoric of the abstract in English and Spanish scientific discourse.* Hochfeldstrasse: Peter Lang.

McKinley, J. (2017). Identity construction in learning English academic writing in a Japanese university. *The Journal of Asia TEFL, 14*, 228-243.

Meloy, J. M. (2002). *Writing the qualitative dissertation: Understanding by doing* (2nd ed.). Mahwah, New Jersey: Lawrence Erlbaum Associates.

Moreno, A. (2010). Researching into English for research publication purposes from an applied intercultural perspective. In M. Ruiz-Garrido, J. Palmer, & I. Fortanet- Gómez (Eds.), *English for professional and academic purposes* (pp. 59-73). Amsterdam: Editions Rodopi.

Mur-Dueñas, P. (2011). An intercultural analysis of metadiscourse features in research articles. *Journal of Pragmatics, 43*, 3068-3079.

Paltridge, B. (2013). Genre and English for specific purposes. In B. Paltridge & S. Starfield (Eds.), *Handbook of English for specific purposes* (pp. 347–366). Malden, MA: Wiley.

Peacock, M. (2011). The Structure of the Methods Section in Research Articles across Eight Disciplines. *Asian ESP Journal, 7*(2), 97-124.

Posteguillo, S. (1999). The schematic structure of computer science research articles. *English for Specific Purposes*, *18*, 139-160.

Rabie, H., & Boraie, D. (2021). The Rhetorical Structure of Literature Reviews in Egyptian- Authored English Research Articles in Linguistics. *Asian Social Science and Humanities Research Journal*, *3*(1), 55-72.

Scientific Information Database (2020). Retrieved February 26, 2020, from https://www.sid.ir/en/journal/AdvanceJournal.aspx.

Sheldon, E. (2011). Rhetorical differences in RA introductions written by English L1 and L2 and Castilian Spanish L1 writers. *Journal of English for Academic Purposes*, *10*, 238-251.

Sheldon, E. (2013). *The Research Article: A rhetorical and functional comparison of texts created by native and non-native English writers and native Spanish writers* (Unpublished doctoral dissertation). University of New South Wales.

Soler-Monreal, C. (2015). Announcing one's work in Ph.D. theses in computer science: A comparison of Move 3 in literature reviews written in English L1, English L2 and Spanish L1. *English for Specific Purposes*, *40*, 27-41.

Sorayyaei Azar, A., Yi, Y. P., & Azhar, N. A. A. (2020). Genre Analysis of Malaysian TESL Undergraduates' Projects and TESL-Related Research Articles: A Comparative Study. *Asian ESP Journal, 16*(1), 69-136.

Swales, J. (1981). *Aspects of article introductions.* Birmingham: University of Aston.

Swales, J. (1990). *Genre analysis: English for academic and research settings*. Cambridge: Cambridge University Press.

Swales, J. (2004). *Research genres: Explorations and applications*. Cambridge: Cambridge University Press.

Swales, J. M., & Feak, C. B. (2012). *Academic writing for graduate students: A course for nonnative speakers of English* (3rd ed.). Ann Arbor, MI: University of Michigan Press.

Tseng, M. Y. (2018). Creating a theoretical framework: On the move structure of theoretical framework sections in research articles related to language and linguistics. *Journal of English for Academic Purposes*, *33*, 82-99.

Weber, M., & Campbell, C. M. (2004). In other professional journals. *Modern Language Journal*, *88*, 457-466.

Appendix A: Some extracts of the analyzed RAs and their corresponding moves and steps

Move 1 Establishing territory	**Step 1 Claiming centrality** Assigning scores and making inferences based on those scores **play a substantial role in recent theories of** argument-based validation (Bachman & Palmer, 2010; Kane, 2006, 2012, 2013).
	Step 2 Making topic generalizations Intercultural educational encounters have been investigated from the perspective of interactional pragmatics (conversation analysis, interactional sociolinguistics) **for some twenty years**.
	Step 3 Reviewing items of previous research **Most of these studies,** however, either limit themselves to investigating the management of relationships between representatives of two distinct cultural groups or focus on dyadic encounters in situations that are not at the centre of students' educational experience, such as writing tutorials or office hours (e.g., Bardovi– Harlig & Hartford, 1990; Davies & Tyler, 2005; Hiraga & Turner, 1996; House, 2003, 2010; Nguyen, 2007; Tyler, 1995; Thonus, 1999a, 1999b; Turner, 2011; Spencer–Oatey, 2003; Yates, 2005).
Move 2 Establishing a niche	**Step 1A Counter-claiming** Many Plain English recommendations seem to **conflict with accepted notions of** advanced academic writing proficiency in English.
	Step 1B Indicating a gap **However, little consideration has so far been given** to cultures of communication (Cortazzi & Jin, 1997).
	Step 1C Question raising **The question arises whether** the qualitative difference in the nature of beliefs does not represent a neglected variable.
	Step 1D Continuing a tradition **Therefore**, lexical stancetaking markers and particularly evaluative that construction as "a relatively overlooked interpersonal feature" (Hyland & Tse, 2005, p. 123) are combined together in the present study in order **to come up with a big picture of** taking positions in the writing of academic RAs.
Move 3 Occupying the niche	**Step 1A Outlining purposes** **Therefore**, the current study **investigates** the effect of explicit teaching of CM learning strategy through two of its approaches (i.e., teacher-constructed CM and cooperative CM) on reading.
	Step 1B Announcing present research This study also **tried to arrive at** a definition of culture based on the interpretations of Iranian EFL teachers.

Appendix B: Move Patterns in LR of IntRAs and IrRAs

Patterns	F	International RAs	F	Iranian RAs
Single move pattern	6*	M_1	2	M_1
	3	M_1-M_1	3	M_1-M_1
	4	M_1-M_1-M_1-M_1	2	M_1-M_1-M_1
			2	M_1-M_1-M_1-M_1
			1	M_1-M_1-M_1-M_1-M_1
			1	M_1-M_1-M_1-M_1-M_1-M_1
			1	M_1-M_1-M_1-M_1-M_1-M_1-M_1-M_1-M_1
			1	M_1-M_1-M_1-M_1-M_1-M_1-M_1-M_1-M_1-M_1-M_1-M_1
Regular 2-move pattern	1	M_1-M_1-M_2	3	M_1-M_2
	1	M_1-M_2-M_2-M_2	3	M_1-M_1-M_2
	1	M_1-M_1-M_3-M_3-M_3	1	M_1-M_1-M_1- M_2
			2	M_1-M_1-M_2-M_2
			1	M_1-M_1-M_2-M_2- M_2
Irregular 2-move pattern	1	M_1-M_2-M_1	1	M_2-M_1
	1	M_1-M_1-M_2-M_1	2	M_1-M_2-M_1
	2	M_2-M_1-M_2-M_2-M_1	1	M_2-M_2-M_2-M_1-M_1
	1	M_1-M_2-M_1-M_2- M_2	1	M_2-M_1-M_1-M_2-M_1
	1	M_1-M_1-M_1-M_2-M_1	1	M_1.M_2- M_2-M_2-M_2-M_1
	1	M_1-M_1-M_3- M_3-M_1	1	M_1-M_2-M_1-M_2-M_1-M_2-M_1
	1	M_1-M_1-M_2-M_1-M_1-M_1	1	M_1-M_1-M_1-M_1-M_2-M_1-M_1
	1	M_1-M_2-M_2-M_1-M_2-M_1-M_1-M_2		
	1	M_1-M_2-M_2-M_1-M_2-M_2-M_2		
Regular 3-move pattern	2	M_1- M_2-M_3	3	M_1-M_2-M_2-M_3
	1	M_1-M_2-M_2-M_3	1	M_1- M_2-M_3-M_3
	2	M_1-M_2-M_2-M_3-M_3	1	M_1-M_1-M_2-M_3
	1	M_1-M_1-M_2-M_3-M_3	1	M_1- M_2-M_2-M_3-M_3
	1	M_1-M_1-M_1-M_1-M_1-M_2-M_2-M_3	4	M_1-M_1-M_1-M_2.M_3
	1	M_1-M_2-M_2-M_2-M_2-M_2-M_3-M_3	2	M_1-M_1- M_2-M_3-M_3
			4	M_1-M_1-M_2-M_2-M_3-M_3
			3	M_1-M_1-M_1-M_2-M_2-M_3
			1	M_1- M_2-M_2-M_2-M_2-M_3
			1	M_1-M_1-M_1-M_2-M_3-M_3-M_3
			1	M_1-M_1-M_1-M_2-M_2-M_2-M_3
			1	M_1- M_2-M_2-M_2-M_2-M_2-M_3
			1	M_1-M_1-M_1-M_1-M_1-M_2-M_3
			1	M_2-M_1- M_2- M_2-M_3-M_3-M_3-M_3
			1	M_1-M_1-M_1-M_2-M_2-M_2-M_3-M_3-M_3
Irregular 3-move pattern	1	M_1-M_3-M_1	1	M_2-M_1- M_2-M_2-M_1-M_3-M_1
	1	M_2- M_3-M_1	1	M_2-M_2-M_3-M_3-M_1-M_2-M_3-M_1-M_3-M_2
	2*	M_2-M_1- M_2-M_3		
	1	M_1- M_2-M_1-M_3-M_3	1	M_2-M_2-M_2-M_2-M_1-M_1-M_1-M_1-M_3-M_1-M_1- M_2- M_2
	2	M_1-M_2-M_1- M_2-M_3		
	1	M_2-M_1-M_2- M_2-M_3	1	M_3-M_2-M_1-M_2-M_1-M_1-M_2-M_2-M_1-M_3-M_1- M_2- M_2-M_1
	2	M_1- M_2-M_1- M_2-M_1-M_3		
	1	M_1- M_2-M_1-M_1- M_1-M_3		
	1	M_1- M_2-M_1- M_2-M_1-M_3		
	1	M_1-M_1- M_2-M_1- M_2- M_2-M_3		
	1	M_1-M_2- M_2-M_1-M_1- M_2-M_3		
	1	M_1-M_1-M_1- M_2-M_1-M_3- M_2-M_1		
	1	M_1-M_1-M_1- M_2-M_1-M_3- M_2-M_2		
	1	M_1-M_1-M_1- M_2-M_1-M_3-M_1- M_2		
	1	M_1-M_1- M_2-M_1-M_1-M_1- M_2-M_3		
	1	M_1-M_1-M_1- M_2-M_1-M_1- M_2-M_2-M_3		

Chabahar Maritime University
Iranian Journal of English for Academic Purposes ISSN: 2476-3187
IJEAP, 2021, 10(3)) (Previously Published under the Title: Maritime English Journal)

1	M_1-M_2-M_1- M_2-M_1-M_2-M_1- M_2-M_3
1	M_1-M_3-M_1- M_2-M_1-M_1-M_3-M_1- M_1-M_2
1	M_1-M_1-M_1- M_2-M_3-M_1-M_1- M_2-M_2-M_3
1	M_1-M_3-M_2-M_1-M_1-M_2-M_1-M_2-M_1-M_2- M_2
1	M_1-M_1-M_2-M_3-M_1-M_2-M_1-M_2-M_1-M_3-M_2-M_3
1	M_1-M_3-M_1-M_1-M_2-M_1-M_1-M_2-M_1-M_2- M_2-M_3
1	M_2-M_1-M_1-M_3-M_1-M_1-M_2-M_1-M_2-M_2-M_2- M_2-M_2
1	M_1-M_1-M_2-M_2-M_1-M_1-M_1-M_2-M_2-M_2-M_2- M_2-M_3- M_2-M_3

*It shows that 6 IntRAs had a single move pattern and used Move1 once (M_1). As another example, 2 IntRAs had an irregular 3-move pattern using Move2, Move1, Move2, and ultimately Move3 (M_2-M_1-M_2-M_3).