



Move Recycling in Soft Science Research Articles: English Native Speakers vs. Iranian Speakers

Research Article
pp. 115-137

Kimia Soltani¹
Davud Kuhi^{*2}
Nasrin Hadidi Tamjid³

Received: 2020/10/12 Accepted: 2021/02/01

Abstract

Inspired by intercultural rhetoric theories and their distinctions between big and small cultures, the current study strived to investigate whether Move Recycling (MR) in English soft science research articles (RAs) was sensitive to cultural and disciplinary variations. To this end, 600 English RAs, half of which were written by Iranians and the other half by native English authors in six soft science disciplines, published from 2006 to 2018, were selected. Weissberg and Buker's (1990) Move model was used to determine the main Moves prevalent in the RAs; then, the frequencies of recycled Moves in various sections of the RAs were calculated. The quantitative data analysis results revealed that the use of MR was not associated with the authors' cultural background. However, some differences were found in the distribution of recycled Moves across RA sections and disciplines. That is, MR was most frequently found in the Discussion and least frequently in the Method sections. Moreover, it was most often observed in Economics RAs and least often in Psychology RAs, which was attributed to discipline-specific conventions. In the qualitative phase of the study, some RA authors' rationales for using MR elicited via emails underwent content analysis, and their three common reasons for using MR, including reader guidance, discipline conventions, and RA length, were identified. The findings of this study may serve as a guide for course designers to prepare discipline-specific materials for EAP writing classes in which MR is emphasized.

Keywords: big culture, intercultural rhetoric, move recycling, small culture, soft sciences

* Corresponding Author

¹ PhD Candidate, Department of English, Tabriz Branch, Islamic Azad University, Tabriz, Iran. soltanikimia98@gmail.com

² Assistant Professor, Department of English, Maragheh Branch, Islamic Azad University, Maragheh, Iran. davudkuhi@iau-maragheh.ac.ir

³ Assistant Professor, Department of English, Tabriz Branch, Islamic Azad University, Tabriz, Iran. nhadidi@iaut.ac.ir

DOI: 10.22051/lghor.2021.33356.1376

Introduction

Over the last three decades, Applied Linguistics scholars have conducted a burgeoning number of Move-based studies to examine the generic structure of various sections of research articles (RAs) such as Abstract (Behnam & Golpour, 2014; Yakhontova, 2006), Introduction (Lim, 2012; Ozturk, 2007), Method (Lim, 2006; Peacock, 2011), Results (Atai & Falah, 2005, Yang & Allison, 2003), and Discussion (Joseph & Lim, 2018; Sheldon, 2019). A Move alludes to “a discursual or rhetorical unit that performs a communicative function in a written or spoken discourse” (Swales, 2004, pp. 228-229). Move analysis is the identification of schematic units or Moves within the text (Nwogu, 1997). That is why several researchers (e.g., Bhatia, 1997; Hyland, 2002; Loi & Evans, 2010; Swales, 1990; Swales & Feak, 2009) have asserted that Move analysis plays a crucial role in improving researchers’ and students’ academic writing.

Move analysis has been employed in contrastive rhetoric (CR) to discover the possible effects of cultural factors on writing by comparing the generic structure of RAs written by writers for whom English is the first or dominant language and writers for whom it is not (e.g., El Malik & Nesi, 2008; Jalilifar & Dastjerdi, 2010; Keshavarz et al., 2007). There are two conflicting assumptions about the existence of differences in cross-cultural writing practices. The first is based on the premise that the authors’ cultural background leads to variations in the rhetorical structure of the texts (Kaplan, 1966). The results of various cross-cultural studies confirm Kaplan’s assumption (e.g., Behnam & Golpour, 2014; El Malik & Nesi, 2008; Hirano, 2009; Sheldon, 2011; 2019). The second hypothesis comes from Widdowson (1979), who believes in the homogeneity of scientific textual features across cultures and languages. A considerable amount of literature supports Widdowson’s (1979) argument (e.g., Amnuai & Wannaruk, 2013; Chalak & Norouzi, 2013; Rezaee & Sayfour, 2009; Yakhontova, 2006).

Parallel to cross-cultural studies, cross-disciplinary studies have received considerable attention from many researchers (e.g., Afshar et al., 2018; Ge & Yang, 2005; Stoller & Robinson, 2013). Based on the findings of their studies, the rhetorical structure used in RAs is affected by disciplinary variations. The significance of these studies is that mastery of genre knowledge would assist students in becoming participants in their target discourse communities (Hyland, 2002). Discourse communities, according to Swales (1990, p. 9), “are socio-rhetorical networks that form in order to work towards sets of common goals.” These common goals serve as the foundation for shared communicative purposes. Established members of discourse communities are familiar with the [norms of] particular genres and use them to pursue their communicative goals (Swales, 1990).

A relatively new approach to contrastive studies, coined by Connor (2004), is intercultural rhetoric (IR). Researchers in IR simultaneously take into account the effect of authors’ cultural background (big culture) and several small cultures (e.g., discipline and academic cultures) as multiple sources of second language writing deviations (Connor, 2004). Furthermore, they go beyond textual analysis and use ethnographic approaches to understand the quantitative results (Connor & Rozycki, 2013).

A close review of the literature shows that, while considerable attention has been paid to the RA analysis across cultures (Amnuai & Wannaruk, 2013; Jalilifar & Dastjerdi, 2010; Hirano, 2009; Sheldon, 2011; 2019) and disciplines (Ge & Yang, 2005; Peacock, 2011; Samraj, 2002; Stoller & Robinson, 2013), Move Recycling (MR) across RA sections has been overlooked in previous Move-based studies. In fact, MR deals with considering every appearance of a certain Move as a separate occurrence (Swales, 1990). As Swales (1990) points out, the length factor contributes to the MR in the social sciences RAs. However, linearity is preferred in the natural sciences and engineering; therefore, MR is less likely to occur in such RAs.

Moreover, MR acts as a link between the RA sections (Yang & Allison, 2003) and shows how these sections relate to each other to make the whole RA a unified, meaningful text. According to Tessuto (2015), cyclicity is necessary to demonstrate the expansiveness of the Moves. The use of MR in RAs may help readers correctly grasp the writers' intentions by refreshing readers' memories (Joseph & Lim, 2018), reminding them of important information, and motivating them to continue reading.

It remains uncertain whether researchers and scholars from different disciplines and cultures are familiar with the rationale for using MR across four conventional sections of RAs, including the Introduction, Method, Results, Discussion (IMRD) sections. This issue may be more critical for novice RA writers who may need more explicit instruction in this regard. It may raise this question for them that, while some Moves have already been used in one section of the RA, why should they be repeated in other sections of the RAs as well? They need, however, to become acquainted with the potential role that MR plays in making a cohesive text. Hence, this study aimed to help students and researchers become more explicitly aware of how MR spans across cultures and soft science disciplines.

Review of the Literature

Intercultural Rhetoric

Studies conducted within the framework of the CR have been seriously criticized for their static view of the notion of culture by researchers such as Spack (1997), Pennycook (2001), Matsuda and Atkinson (2008). Moreover, CR was based on the assumption that all speech communities had their own distinct cultures that could be compared. It was therefore criticized for ignoring different writing patterns within languages as well as variations in the writing of individual authors (Spack, 1997). Kubota (1999) adopted a postmodernist critical view and argued that CR stereotyped non-native writers by suggesting that, as they all write in the same way, their writings are deficient. These criticisms led to a new trend in contrastive studies and a new definition of the concept of culture.

Inspired by Atkinson's (1999) dynamic view of culture, Connor (2004) used the notion of intercultural rhetoric (IR) instead of CR to explore the relationship between writing practices and culture. In addition, some researchers, such as Holliday (1999) and Atkinson (2004), differentiated between big and small cultures in which nationality (or cultural background of authors) belongs to the big paradigm of culture, and disciplinary and academic

writing cultures subsume under the small culture's paradigm. IR-based studies simultaneously consider the effect of these two cultures on writing (Connor, 2004). Moreover, they extend beyond comparative textual analysis by using ethnographic approaches such as observations and interviews to validate quantitative findings (Connor & Rozycki, 2013).

Move Recycling

In addressing the difficulty of writing the Introduction section of the RA, especially for non-native students, Swales (1981) proposed a four-Move model to analyze this section: Move1: establishing the field; Move2: summarizing previous research; Move3: preparing for present research; Move 4: introducing present research. Several researchers, mainly Cooper (1985) and Crookes (1986), criticized Swales' model and demonstrated that his four-Move model could be adapted. One of the drawbacks of the Swales' (1981) model was that the Introductions of social science RAs were long and organized cyclically so that Moves 2 and 3 could occur more than once (Crookes, 1986).

Since it was difficult to distinguish the first two Moves, Swales (1990) modified his previous model to a three-Move model and called it the CARS model. This model consisted of three main Moves, including M1: establishing territory; M2: establishing a niche; M3: occupying the niche with their related steps. In addition, in response to the aforementioned criticisms, Swales (1990) suggested that certain types of Moves may recur within the Introduction, a concept known as Move Recycling, which implies that Moves are not used in a linear manner but can be organized cyclically. For example, if the text starts with Move type 1, continues with Move type 2, and then returns to Move type 1, Move type 1 would be counted as having occurred twice.

MR in Introduction. MR has been documented in the Introduction section by some researchers, such as Samraj (2002), Ozturk (2007), Lim (2012), and Afshar et al. (2018). The study by Ozturk (2007), which examined Second Language Acquisition (SLA) and Second Language Writing (SLW) RAs, reflected that SLW researchers use Moves in a cyclical pattern. Likewise, Afshar et al. (2018) analyzed the Introduction sections of 52 Applied Linguistics and 52 Chemistry RAs and noticed the recycling of specific Moves in this section.

MR in Method. Very few studies have focused on the generic structure of the Method section (e.g., Lim, 2006; Peacock, 2011). One that may be more relevant to this study is Peacock's (2011) study. He investigated the Moves of the Method sections of 288 RAs in eight disciplines (36 RAs in each) and found that the presence of M4 (research objectives/questions/hypotheses) in the Method section was discipline-specific. That is, M4 appeared in 6% of Physics RAs, 3% of Biology RAs, 0% of Chemistry RAs, 11% of Environmental Science RAs, 67% of Public and Social Administration RAs, 36% of Business RAs, 22% of Language and Linguistics RAs, and 58% of Law RAs.

MR in Results. Earlier studies have also revealed that the recycling of the M4 occurs in the Results section (Atai & Falah, 2005; Kanoksilapatham, 2005; Posteguillo, 1999; Yang & Allison, 2003). Atai and Falah (2005) report on a research project they conducted on the Results and Discussion sections of the 80 RAs in Applied Linguistics written by English and Persian native speakers in which they found that M4 was present in almost all the Results sections of the

Applied Linguistics RAs for both English and Persian authors. In his study of various sections in 40 computer RAs, Posteguillo (1999) pointed out that hypotheses or objectives re-established in the Results section might be correlated with the length of the RAs. For example, in long RAs, the writer might feel obligated to create a link between the Introduction and the Results sections and, concurrently, to remind readers of the objective or hypothesis of the study in the Results section.

MR in Discussion. The recycling of the M4, previously found in the Introduction sections and variously called “background information” by Joseph and Lim (2018) and “focus of the study” by Sheldon (2019), was also reported in the Discussion sections. For example, Joseph and Lim (2018) analyzed 60 Forestry RA Discussion sections and found that the “background information” Move was present in 95% of these RA Discussions.

Findings and comments on findings Moves (M14 and M15), whose first manifestations, usually occur in the Results sections, are the two other Moves that are recycled in the Discussion section of the RAs. The presence of these two Moves in the Discussion section has been reported in various disciplines (e.g., Basturkmen, 2009 in Applied Linguistics; Basturkmen, 2012 in Dentistry; Kanoksilapatham, 2005 in Biochemistry; Yang & Allison, 2003 in Applied Linguistics).

Overall, the literature review reveals that a bulk of contrastive studies have been conducted through the lens of Move analysis. As mentioned above, some of them have focused on the individual section of the RAs (e.g., Sheldon, 2019). Nevertheless, Kanoksilapatham (2015) notes that, while focusing on individual sections of the RAs helps us understand how the specific section of the RAs is constructed, it provides us with rudimentary knowledge of how the entire sections of the RAs are organized. Moreover, the majority of these studies have examined a limited number of texts, which restricts the generalizability of the findings; accordingly, little is known about the textual organization of a large representative corpus. In addition, in the Iranian context, a number of cross-cultural and/or cross-disciplinary studies have been set out through the lens of Move analysis, including studies conducted by Ghasemi and Alavi (2014), Behnam and Golpour (2014), Farzannia and Farnia (2017), Afshar et al. (2018), and Tavakoli Gheinani and Tabatabaei (2018); however, they have dealt with other aspects of Move analysis and have not focused on MR.

Inspired by IR theories, this study was therefore carried out to fill the gaps mentioned above and to examine the IMRD sections of the RAs in a relatively large corpus, relying on both quantitative and qualitative data analysis to identify possible disciplinary (small culture) and cultural (big culture) variations in the use of MR. It also sought to integrate the perspectives of native speakers of English and the Iranian RA authors on MR to provide more information and validate quantitative findings. It is hoped that the results of this study could be beneficial in EAP and ESP classes, as well as in raising awareness among researchers, course designers, teachers, and students of MR.

In line with the purposes of the study, the following research questions were addressed:

1. What are the differences between native speakers of English and

non-native speakers of English (Iranian) in applying MR to the IMRD sections of the soft science RAs?

2. What are the differences across the six disciplines of soft science RAs in recycling individual Moves?

3. Why do native English and Iranian authors of the soft science RAs of the current study recycle the Moves?

Method

Design

The present study was based on a mixed-method design. The quantitative analysis of the study involved the overall frequency of MR as well as the possible differences across cultures and disciplines in applying MR. The qualitative analysis dealt with the analysis of the reasons for the use of MR by RA authors.

Materials

Emails. In the qualitative phase of the study, email dialogs were set up between the researchers and RA writers to elicit their reasons for MR.

The Corpus. The current study comprised a corpus of 600 empirical English RAs in six soft science disciplines, including Sociology, Applied Linguistics, Management, Economics, Psychology, and Linguistics. The two main rationales for selecting these disciplines were (a) empirical RAs with IMRD structures could be found in these disciplines, and (b) they were not newly developed disciplines in Iranian contexts, and we could find the necessary RAs written in English by Iranian authors. In order to control the time variable and ensure consistency of results, the researchers chose thirteen empirical RAs from each volume of the selected journals in the period from 2006 to 2018. A total of 100 RAs from each discipline — 50 RAs written by native speakers of English and 50 RAs written by Iranian authors as non-native speakers of English — were selected.

The RA Selection Process

The RAs that followed IMRD structures were downloaded from the Internet. The identification of the boundary between IMRD sections was based on the discourse function in the RAs. For instance, the Method section was labeled differently in different journals, such as Data and Measurement, Method, Data and Method, Methodology, Research Setting, and so forth. In order to distinguish native English authors from non-native authors, Wood's (2001) criterion was used. According to this criterion, to be considered a native English author, the author must be affiliated with an institution in a country where English is spoken as the first language and has a native name¹. Although this may not be the perfect method to ascertain the authors' nativeness, it is an often-used method.

¹ On the first page of each RA, information regarding the name of the author and the universities was available. To distinguish native English, first, we checked their names. The names that were prototypes of native English names, such as Christopher, Sarah, etc., were chosen in most cases. The university where the authors were affiliated was also checked to ensure that they were located in one of the following countries: Canada, New Zealand, Australia, the United States, and the United Kingdom.

In the RA selection process, they were rejected if they (a) were not empirical RAs with IMRD structure, (b) were written by authors whose nativeness was difficult to determine by their names and affiliations, and (c) were written with the collaboration of native English and Iranian authors. When an RA meeting the criteria mentioned above was not found in the particular issue of the journal, the subsequent issue was searched. In some disciplines, it was not easy to find RAs with all these characteristics, even in the native English group, when we had to search all issues to find an RA for a specific year. In addition, we could not find the necessary RA for the Iranian corpus in the selected journals, and we had to use more journals.

The Journal Selection Process

The criteria for selecting journals were their accessibility and reputation among the target discourse community members. Based on the established tradition of selection and sampling in some other studies, the nomination of informants (e.g., Harwood, 2005; Hyland, 2002), four experienced Iranian lecturers who had regularly published RAs in local and international journals in each of the disciplines in the current study, were separately requested to appoint four well-known journals in their fields of study. At first, four journals, which were common in their suggestions, were selected for both the native English and Iranian groups in each discipline. However, in some disciplines, Iranian authors did not have enough RAs published in selected journals to complete the corpus which was needed. In such cases, we had to use more journals based on their advice (see Table 1 for the list of selected journals). Although this method might seem to jeopardize our comparisons, we found that, according to Moreno (2008), the data were comparable in terms of their main communicative functions.

Table 1

List of Selected Journals for Iranian and Native English Authors

Disciplines	Journals
Applied Linguistics	English for Specific Purposes (ESP), System, Language Teaching Journal, International Journal of Applied Linguistics, The Language Learning Journal
Economics	Energy Economics, Energy Policy, Economic Modeling, Journal of Economic Policy Reform, Economics Letters
Sociology	International Journal of Applied Sociology, Mediterranean Journal of Social Sciences, American Sociological Association, Iranian Journal of Educational Sociology, Cultural Sociology, Social Problems, International Sociology, Canadian Studies in Population, Work, Employment and Society, Punishment and Society, Current Sociology
Management	Information and Management, Business Process Management Journal, The International Journal of Management Education, Management Science Letters, International Journal of Research in Marketing
Psychology	Europe's Journal of Psychology, Current Psychology, Journal of Happiness Studies, Child Psychiatry
Linguistics	Australian Journal of Linguistics, International Journal of Linguistics, Linguistics Journal, Lingua

Model of Analysis

In the present study, Weissberg and Buker's (1990) Move model was used to identify the Moves (see Appendix A). The rationales for selecting this model were that, in the first place, Weissberg and Buker (1990) focused on 12 disciplines and presented a list of Moves or, in their own terms, "Elements" that a scientific RA must include; therefore, the model could be considered a comprehensive model for move analysis. Second, it addressed the Moves that were prevalent in the four sections (i.e., IMRD sections) of the RAs, and we did not have to use four different models to identify the Moves for each section. Third, to narrow down the study's scope, we needed a broad model that did not concern sub-moves, and the model met this requirement.

It should be noted that Weissberg and Buker (1990) did not assign numbers to their identified Moves for IMRD sections of RAs. We did so to make moves easier for the readers to follow. More importantly, because this research was exploratory and pattern-seeking in nature, rather than pattern-imposing, their model was used as a road map to identify key Moves that the English RA might include.

The following example illustrates how *The Purpose of the Study (M4)* has been recycled in the Introduction, Results, and Discussion section of the Applied Linguistics RA by native English authors (Martin & Ellis, 2012):

Introduction: The current study, therefore, *investigated* the roles of ...

Introduction: The current study *intended to address* these issues...

Results: Even though *the primary purpose* of this study was to explore ...

Discussion: *The goal* of the present study was to explore...

Procedures

Procedure for Quantitative Data. Before the analysis, we classified articles in each discipline into two categories: those written by native English authors, and those written by Iranian authors. The articles of each group were then coded separately for quick identification and easy reference. For instance, PE1-PE50 stands for Psychology RAs written by native English authors. At the same time, PI1-PI50 refers to RAs written by Iranian authors in the same field. To better understand the RAs and to have a whole picture of the main Moves prevalent in them, we first read RA abstracts. Then, to identify the Moves, we read the entire RA. The moves were identified primarily based on their communicative values. However, textual signals were also used as complementary devices (see the above example provided for MR, in which the researchers have written in *italic* the textual signals that were extremely invaluable in the identification of M4).

The analysis was performed mainly by the researchers. However, to minimize subjectivity and ensure the reliability of the results, the second - rater with experience in Move analysis and a doctoral degree in Applied Linguistics- was employed to conduct Move analysis for half of the corpora independently. Before the analysis of the RAs, the two raters had a brief session to enhance the agreement. In this session, it was emphasized that only Moves that would be repeated in more than one section of the RAs should be considered recycled Moves. After identifying the Moves in the RA sections, their recycling was recorded, and the frequency of recycled Moves in the RA sections was

determined across the two cultures and the six disciplines. Inter-rater reliability was then calculated and found to be high ($r = .89$). Besides, the researcher analyzed 30% of the corpora after a month interval to ensure intrarater reliability. The calculated reliability yielded a high degree of reliability ($r = .95$). Since the RAs were not equal in length, the obtained frequencies were normed as occurrences per 10,000 words and then entered into the SPSS (version 22) and analyzed using the Chi-square test.

Procedure for Qualitative Data. The second phase aimed to obtain RA authors' reasons for MR via email. To this end, the researchers randomly selected 60 native English and 60 Iranian RA authors (20 from each discipline) and invited them to participate in the study. To clarify the points for RA authors, we wrote their sentences manifesting their use of MR under the title of each of the recycled Moves in Word files. This way, we could clearly show them how they have recycled the Moves in different sections of their RAs. We then mailed the Word files along with their full articles and asked them, through an open-ended question, why they had repeatedly used these sentences in different parts of their RAs (see Appendix B for the content of our email). Thirty-eight (21 Iranian and 17 native English) authors responded to our emails. Eight of them were disregarded because their responses showed that either they were not eager to participate in the study or that they could not provide sufficient explanations. The content analysis was, therefore, only conducted on the reasons provided by 30 authors. That is, their responses were carefully read, coded, and compared by the researchers so that recurrent themes could be identified. Finally, the frequency of the recurring themes was calculated and tabulated for further interpretation.

Data Analysis

Chi-Square tests were used to answer the first and second research questions. In order to answer the third research question, the researchers compared the authors' reasons for MR based on the content analysis method. Then, the frequencies and percentages of recurrent themes were calculated.

Results

Research Question 1

The first research question addressed the differences between native speakers of English and Iranian authors in applying MR across the IMRD sections of the RAs. Table 2 illustrates the distribution of the recycled Moves, including M3 (gap), M4 (purpose of the study/ research questions), M5 (the statement of the value), M7 (sample), M9 (sampling techniques), M11 (materials), M12 (statistical treatment), M14 (most important findings), and M15 (comments on the results) in the IMRD sections of RAs by the two groups of authors.

Table 2

Frequency of Recycled Moves by Native English (E) and Iranian (I) Authors in IMRD Sections of RAs

Moves	M3		M4		M5		M7		M9		M11		M12		M14		M15	
	E	I	E	I	E	I	E	I	E	I	E	I	E	I	E	I	E	I
I	45	34	76	53	21	17	1	0	5	2	0	0	0	0	0	0	0	0
M	6	3	17	15	7	8	20	12	21	11	4	4	1	1	0	0	0	0
R	4	0	52	45	6	0	3	3	5	4	0	0	11	7	10	7	0	0
D	5	6	62	50	9	6	3	1	4	3	1	0	6	8	67	65	67	65
Total	60	43	207	163	43	31	27	16	35	20	5	4	18	16	77	72	67	65

Note. As the frequency of recycling of other Moves across RA sections was equal to zero, they are not presented in the Table.

As Table 2 indicates, native English authors recycle M4 ($f = 207$), M14 ($f = 77$), and M15 ($f = 67$) more frequently than other Moves. M4 ($f = 207$) is the most often recycled Move by native English authors. Its recycling in the IMRD section of the RAs based on frequency can be organized as follows: Introduction ($f = 76$), Discussion ($f = 62$), Results ($f = 52$), Method ($f = 17$). However, M14 and M15, with equal frequencies ($f = 67$), appear to be recycled more frequently in the Discussion than in other sections of the RA. Table 2 also shows that the most frequent recycled Moves by Iranian authors are: M4 ($f = 163$), M14 ($f = 72$), and M15 ($f = 65$). M4, as was the case for native English authors, is the most-often recycled Move, and its recycling, based on frequency, can be organized as follows: Introduction ($f = 53$), Discussion ($f = 50$), Results ($f = 45$), Method ($f = 15$). Meanwhile, M14 and M15 appear to be more often recycled in the Discussion section ($f = 65$) than in other sections.

Table 3

The Total Frequency of Recycled Moves in IMRD Sections of RAs by Native English and Iranian Authors

		English	Iranian
Sections	Introduction	148	106
	Method	76	54
	Results	91	66
	Discussion	224	204

Overall, the results displayed in Table 3 show that native English groups tend to utilize MR in the Discussion sections ($f = 224$) followed by the Introduction section ($f = 148$). Likewise, in Iranian authors' RAs, MR occurs most often in the Discussion sections ($f = 204$) followed by the Introduction sections ($f = 106$). However, a close analysis of these results reveals that the number of recycled Moves in the IMRD sections of the RAs by the native English authors exceeds the number of recycled Moves by Iranian authors. A Chi-square test was conducted to determine the significance of the difference between the two groups of the authors. This test results revealed no significant difference

between the two groups of authors in terms of MR, $X^2(3, 969) = .294, p > .05$, Cramer's $V = .62$.

Research Question 2

The second research question in the present study sought to investigate the possible variation across six disciplines of the current study in recycling individual Moves. Table 4 presents the descriptive statistics of the individual Moves recycled across the soft science RAs included in this study.

Table 4

The Frequency of Individual Moves Recycled in Soft Science Disciplines

	Lin	AL	Eco	Man	Psy	Soc
M3	14	16	24	17	13	20
M4	47	63	83	63	42	73
M5	4	10	28	13	1	18
M7	3	3	18	9	1	10
M9	3	4	24	9	1	13
M11	0	1	3	3	0	3
M12	1	8	12	8	1	6
M14	24	22	31	27	20	26
M15	22	22	23	24	20	21
Total	118	149	246	173	99	190

Note. Lin = Linguistics; AL = Applied Linguistics; Eco = Economics; Man = Management; Psy = Psychology; Soc = Sociology

As shown in Table 4, soft science disciplines can be arranged according to the MR frequency (from the highest to the lowest) as follows: Economics ($f = 246$), Sociology ($f = 190$), Management ($f = 173$), Applied linguistics ($f = 149$), Linguistics ($f = 118$), and Psychology ($f = 99$). Economics RAs appear to be the main platforms for the landing of recycling Moves because most Moves have the highest recycling frequency in these RAs. High recycling rates of other Moves, including M3 ($f = 24$), M4 ($f = 83$), M5 ($f = 28$), M7 ($f = 18$), M9 ($f = 24$) in Economics RAs are more salient than in other disciplines. On the contrary, almost all Moves are recycled with the least frequency in the Psychology RAs.

Table 4 also shows that M4 is the most often recycled Move in the disciplines under study. The frequency of the M4 recycling across study disciplines could be organized as follows: Economics ($f = 83$), Sociology ($f = 73$), Management ($f = 63$), Applied Linguistics ($f = 63$), Linguistics ($f = 47$), and Psychology ($f = 42$). Furthermore, M14 and M15, with their relatively high frequency of recycling, show a similar recycling frequency across the six disciplines. A Chi-square test was used to investigate whether there was a significant difference between the six soft science disciplines in the recycling of individual Moves, the results of which indicated that this difference was significant, $X^2(40, 975) = .002, p < .05$, Cramer's $V = .120$.

Research Question 3

We have included some of the reasons provided by RA authors for MR to answer the third research question, considering why native English and Iranian authors of soft science RAs use MR.

1. Repetition and clarity help readers_{R1} understand why they are reading what they are reading.
2. I tend to follow the framework_{R2} described in John Creswell's book.
3. I repeat the aims because it is important that readers_{R1} understand the purpose of what they're reading. In a long_{R3} paper it's easy to lose track of the purpose of a particular part of the argument.
4. It is quite conventional_{R2} to do this. When the aim is repeated in the Discussion, for example, we want to remind the readers_{R1} of the purpose.
5. It is a convention_{R2}; I was trained to be very clear with signposts that guide the reader_{R1} through my analysis. Academic articles are long_{R3} and full of details...
6. Repetition helps readers_{R1} to comprehend the main points in the paper.
7. It acts as a cue for readers_{R1} to connect different sections of articles, especially in long_{R3} articles and tempts them to continue reading."
8. I have just followed the convention_{R2} of research article writing.
9. Because readers_{R1} don't read the entire paper and authors want to ensure the readers don't miss anything important.

After careful reading and analysis of the RA authors' responses, we identified three primary reasons for the use of MR: the reader guidance, the discipline convention, and the length of the RA. Examples 1 to 5 illustrate the rationales of native English authors (to be specific, only their sentences, including their reasons, are given, and the recurring themes have been written in bold type by the researcher). Table 5 presents the frequency and percentage of the three reasons given by the RA authors.

Table 5

Frequency and Percentage of Native English and Iranian Authors' Reasons (R)

R1 (Guiding readers)		R2 (Convention)		R3 (Length)	
E	I	E	I	E	I
11	14	7	12	6	7
91.6%	77.7%	58.3%	66.6%	50%	38.8%

Note. The total number of native English group authors was 12, and the number of Iranian authors was 18.

As shown in Table 5, the reader guidance was most frequently cited by both groups of authors as a reason for MR (91.6 % of native English and 77.7 % of Iranian authors referred to this reason). It appears that both groups of RA authors' primary reason for the use of MR was to accelerate their readers' comprehension. Table 5 also reveals that 58.3% of native English authors and 66.6% of Iranian authors cited the discipline convention as the impetus for MR. This indicates that both groups of authors are trying to follow English academic writing standards in their respective disciplines. Finally, as given in Table 5, another reason for MR was the length of RAs, which was reported by 50% of native English authors and 38.8% of Iranian authors. These findings shed some light on a deeper understanding of why soft science RA authors, in the context of the present study, recycle the Moves.

Discussion

The present study was an endeavor to investigate whether MR in the IMRD sections of soft science RAs is sensitive to disciplinary (small culture) and cultural (big culture) variations. This section provides a brief discussion of the results obtained in light of the quantitative and qualitative data analysis.

Comments on Quantitative Findings

MR in IMRD Sections of RAs. The findings revealed that IMRD sections of RAs, based on the frequency of MR, can be organized as follows: Discussion, Introduction, Results, and Method. The reasons for MR in each section are discussed below.

MR was most frequent in the Discussion sections since these sections tended to involve all three of the most frequently recycled Moves (i.e., M4, M14, and M15). The high frequency of M4 recycling (research purposes/questions) in the Discussion section can be attributed to the distance between the Introduction and Discussion sections. It can be argued that, since the two other sections, including Method and Results, create spaces between the Introduction and Discussion sections, readers may forget about this Move. As a result, RA

writers strive to bridge the gaps between the two sections by recycling M4 in the Discussion sections and reminding readers of it. This repetition, in turn, paves the way for readers to have a straightforward and coherent reading without rechecking M4. Some scholars also have confirmed M4 recycling in the Discussion section (e.g., Ershadi & Farnia, 2015; Joseph & Lim, 2018; Peacock, 2002; Sheldon, 2019).

M14 (findings) and M15 (comments on the results) were the two other Moves with a high recycling frequency in the Discussion sections. Previous studies claimed that the Results sections do not only include the reports on the findings Move but also comments on the findings Move (Chen & Kuo 2012; Lim, 2010; Williams, 1999; Yang & Allison, 2003). It can be assumed that the Results section is the primary section for the provision of research findings and brief comments on them. In the Discussion section, the situation is reversed; that is, a summary of the findings (M14) is applied as a reminder in the Discussion section, and then further explanations and comments on them (M15) are implemented. Meanwhile, analyzing the generic structure of the Discussion sections by many researchers shows that these two Moves are the most commonly used Moves in these sections (e.g., Basturkmen, 2009, 2012; Kanoksilapatham, 2005; Yang & Allison, 2003). Given that M14 and M15 had previously occurred in the RA Results sections, their recycling in the Discussion sections is not surprising. In Weissberg and Buker's (1990) model, these two Moves have also been recycled in the Discussion sections, where we assigned them numbers 17 and 18.

The Introduction section was in the second position regarding the frequency of MR. Three main Moves with a high recycling frequency in this section were M3 (gap), M4 (research purposes/questions), and M5 (value statement). The considerable use of MR by authors in the Introduction section may be due to the importance of this section in the social science RAs. In other words, the authors of the RAs may use MR in the Introduction sections to help readers understand the main Moves in this section. Moreover, during data analysis, we found that MR most frequently occurs in longer Introductions (especially in Economics RAs). It seems that the complexity (Samraj, 2002) and the length factor contribute to MR in this section. This finding, in general, is consistent with the results of the studies reporting the cyclicity of the Moves in the Introduction sections, such as Swales (1990), Ozturk (2007), Lim (2012), and Afshar et al. (2018).

In addition, we found that among the recycled Moves in the Introduction sections, M4 had the highest frequency of recycling not only in the Introduction sections but also in the other three RA sections. The frequent recycling of M4 across RA sections highlights the importance of this Move for both groups of authors. It could be argued that M4 connects different sections of the RAs to show that they are not fragmented sections but are united to form the RA as a whole meaningful text.

M3 and M5 were also recycled in the Introduction section; however, their recycling in the other sections of RAs was too trivial to be discussed in more detail because the focus of this study was on Moves that were recycled across RA sections, not within the RA section.

The Results section was in the third position regarding the frequency

of MR. As was the case in the Discussion section, we believe that the recycling of M4 in the Results section, particularly in long RAs, links the Results section to the Introduction section (Posteguillo, 1999). This recycling could speed up RA reading by allowing readers to remember this Move without having to check it back. The recycling of the M4 in the Results sections is in line with previous studies such as Yang and Allison (2003), Atai and Falah (2005), and Kanoksilapatham (2005).

The findings showed that MR occurred less frequently in the Method sections of RAs compared to the other sections of RAs. Considering the fact that the Method section follows the Introduction section, where readers have adequately encountered M4, authors may assume that readers are not required to be reformed about M4 in the Method section. However, in longer RAs, such as Economics, the situation was different. Since Introduction and Method sections in this discipline are long, readers may lose track of what M4 was. Consequently, they may need to be informed of this Move in the Method section once again. It seems that the length factor plays a fundamental role in MR. The recycling of the M4 in the Method section of longer RAs such as Economic RAs could be considered another manifestation of the discipline-specific characteristics. This finding is consistent with what was reported by Peacock (2011), who also recognized interdisciplinary variations in the frequency and percentage of the M4 in the Method sections.

The Influence of Big (National) Culture. A comparison of the RAs written by native English and Iranian researchers revealed that the difference between the two groups of authors was not statistically significant. One possible reason for this similarity is prescriptive writing instruction, which presents a very similar picture of what students and researchers around the world should follow. Current institutional trends are preparing certain style manuals and university textbooks for academic writing, which provide students with a wide range of rules to help them produce more effective texts (Hyland, 2002). These findings lend support to Widdowson's (1979) claim, who believes in the universality of the rhetorical structure of RAs. The findings are also inconsistent with Yakhontova (2006), who points out that the conventions of writing in different disciplines among somewhat closed national academic communities have preserved their stabilities, so that cultural factors do not influence authors' writing. Swales (2004) and Pennycook (2008) also consider the internationalization of English academic discourse as a critical factor in the universal application of certain writing practices. However, these results are not in line with the research findings which show that the cultural background of the authors influences their RA writings (El Malik & Nesi, 2008; Hirano, 2009; Keshavarz et al., 2007; Sheldon, 2011, 2019).

The Influence of Small (Disciplinary) Culture. Disciplinary cultures also play a crucial role in MR. If we were to draw a vertical line to display the soft science disciplines based on the frequency of MR, we would place Economics RAs at the top of the line and Psychology RAs at the bottom of it. These discrepancies can be partly attributed to the fact that Economics RAs (approximately 12000-14000 or more words) tended to be twice the length of Psychology RAs (about 5000-7000 words). The positions of the other disciplines were below Economics RAs and above Psychology RAs. Such

features are probably due to the different requirements and expectations defined and specified by the respective discourse communities of these disciplines. The results of previous studies revealing cross-disciplinary variations could confirm the observed variations across disciplines. For example, Samraj (2002) found that the conventions of one discipline are not generally applicable to writing in other fields. Ge and Yang (2005) noticed a disciplinary variation regarding the frequency of Moves. The findings are also in line with Joseph and Lim (2018), who asserted that what is appropriate in one discipline is not always appropriate in another. Additionally, Kanoksilapatham (2007) and Stoller and Robinson (2013) proposed that the textual organizations of disciplines are distinct.

Comments on Qualitative Findings

This section presents a discussion of selected email responses received from RA writers that point to guiding readers, discipline conventions, and length of RAs as the three principal reasons for MR.

Guiding Readers. Guiding readers were mentioned as one of the main reasons for MR by the majority of native English and Iranian RA authors. This reveals that they prioritize their readers and highlights authors' substantial attempts to organize their texts in a way that is most likely to be understood by the readers. This orientation to the reader can be approached from a social-interactive perspective, premised on the idea that writing is a form of social interaction through which writers communicate with their readers. That is, not only do they convey their messages, but they also strive to facilitate the readers' understanding of their messages. As Widdowson (1978) has pointed out, writing is a reciprocal phenomenon in that writers focus on written texts and assess their readers' reception. This means that writers also take on readers' roles and monitor their texts to see them through their readers' eyes and meet their expectations. According to one of the native English authors, "readers need to be immersed in a text full of potential meanings and affordances for understanding the text." As far as RAs are concerned, the objective could be achieved by providing a satisfactory amount of comprehension cues, such as MR.

Conventions of Disciplines. Both groups of authors also cited the convention of their disciplines as their reasons for MR. As authors endeavor to satisfy their audiences, they need to portray their messages in more attractive ways to the appropriate discourse community (Hyland, 2000). Besides, according to Spack (1988), writing in different disciplines may require different factors to be considered. It is, therefore, necessary for authors to examine which issues are essential in their discipline and which conventions they should follow.

RA Length. The two groups of authors also indicated the length of the article as a reason for MR. As discussed in the previous section, the high frequency of MR in Economics and its low frequency in Psychology could be mainly attributed to the length of RAs in these two disciplines. In the case of Economics, for example, the permitted article length gives writers more freedom to use Moves more recursively. On the other hand, the length of RAs in Psychology is relatively short, and this space limitation restricts the frequent

use of MR by authors. As Swales (1990) argued, the length factor could be closely related to the cyclicity of the Moves in the social science RAs.

One could claim that the three principal reasons raised by RA authors are interrelated. For instance, it could be argued that discipline-specific conventions require Economics RA authors to write long RAs. This, in turn, enables them to use MR more often to help readers understand longer RAs more easily.

Conclusion

Based on the theoretical framework of the IR, we went beyond the traditional static cultural perspective and discussed similarities and differences in terms of big (national) and small (disciplinary and academic) cultures. We did this because we believe that CR studies, focusing solely on authors' cultural background (big culture), could lead to the ignorance of the role of small cultures, such as disciplinary and academic writing cultures.

In light of the quantitative data analysis, a similar tendency was found between the two groups of authors in the MR application, which was attributed to the universality of the rhetorical structures (Widdowson, 1979). However, the differences in MR application across disciplines were traced back to certain conventions and principles that are typical characteristics of a particular discipline. Overall, these findings revealed that the effects of academic and disciplinary cultures (small cultures) transcended the impact of the author's cultural background (big culture) on the use of MR.

In the qualitative phase of the study, RA authors' low response rate has led us to conclude that all RA authors may not be aware of the critical role that MR plays in soft science RAs. Their logic for applying MR, however, deepened our insight into why they use MR. Their reasons also magnified the social-interactionist view that writing is a social process through which writers interact with their readers (Widdowson, 1978).

This study may have a number of implications for ESP and EAP instructors, syllabus designers, students, and researchers. The results of this study may serve as a guide for course designers to develop discipline-specific materials for EAP writing classes in which MR is emphasized. ESP and EAP writing instructors may know that one size does not fit all. That is, prescriptive writing instruction will not work for heterogeneous students with a distinct disciplinary background.

They can help students write to their readers with a greater sense of responsibility, for example, by using MR to the extent that the conventions of their disciplines allow. In addition, to alert students to the disciplinary culture and minimize their confusion regarding the application of MR in different disciplines, EAP and ESP instructors may encourage students to compare and contrast RA sections of different disciplines in terms of MR. Knowledge of the non-linear sequences of moves in soft science RAs can enable novice students and RA authors to use MR as a comprehension facilitator in their RAs. Such awareness can also make it possible for them to produce a coherent text and have a coherent reading.

In order to generalize the findings of this study, a larger corpus covering various disciplines and cultures is needed. The present study used

Weissberg and Buker's (1990) Move model to explore MR in the RA genre. A parallel contrastive study in terms of MR in other genres, such as theses and dissertations, can be conducted using other analytical models. Future experimental studies could examine the effects of explicit instruction of MR and its application by students. Finally, questionnaires and face to face interviews with both novice and experienced researchers could provide a more concise and comprehensive view of MR and contribute to Move analysis in future studies.

References

- Afshar, H. S., Doosti, M., & Movassagh, H. (2018). A genre analysis of the introduction section of applied linguistics and chemistry research articles. *Iranian Journal of Applied Linguistics*, 21(1), 163-214.
<http://ijal.khu.ac.ir/article-1-2856-fa.html>
- Amnuai, W., & Wannaruk, A. (2013). Investigating move structure of English applied linguistics research article discussions published in international and Thai journals. *English Language Teaching*, 6(2), 1-13.
<http://doi.org/10.5539/elt.v6n2p1>
- Atai, M. R., & Falah, S. (2005). *A contrastive genre analysis of result and discussion sections of applied linguistic research articles written by native and non-native English speakers with respect to evaluated entities and ascribed values*.
<http://www.paaljapan.org/resources/proceedings/PAAL10/pdfs/atai.pdf>
- Atkinson, D. (1999). *Scientific discourse in sociohistorical context*. Erlbaum.
- Atkinson, D. (2004). Contrasting rhetorics/contrasting cultures: Why contrastive rhetoric needs a better conceptualization of culture. *Journal of English for Academic Purposes*, 3(4), 277-289.
<https://doi.org/10.1016/j.jeap.2004.07.002>
- Basturkmen, H. (2009). Commenting on results in published research articles and master's dissertations in language teaching. *Journal of English for Academic Purposes*, 8(4), 241-251.
<https://doi.org/10.1016/j.jeap.2009.07.001>
- Basturkmen, H. (2012). A genre-based investigation of discussion sections of research articles in dentistry and disciplinary variation. *Journal of English for Academic Purposes*, 11(2), 134-144.
<https://doi.org/10.1016/j.jeap.2011.10.004>
- Behnam, B., & Golpour, F. (2014). A genre analysis of English and Iranian research articles abstracts in applied linguistics and mathematics. *International Journal of Applied Linguistics and English Literature*, 3(5), 173-179.
<http://doi.org/10.7575/aiac.ijalel.v.3n.5p.173>
- Bhatia, V. K. (1997). Introduction: Genre analysis and world Englishes. *World Englishes*, 16(3), 313-319.
<https://doi.org/10.1111/1467-971X.00066>
- Chalak, A., & Norouzi, Z. (2013). Rhetorical moves and verb tense in abstracts: A comparative analysis of American and Iranian academic writing. *International Journal of Language Studies*, 7(4), 101-110.
<http://www.ijls.net/pages/volume/vol7no4.html>
- Chen, T. Y., & Kuo, C. H. (2012). A genre-based analysis of the information structure of master's theses in applied linguistics. *The Asian ESP Journal*, 8(1), 24-52.
<https://www.asian-esp-journal.com/april-2012/>
- Connor, U. (2004). Intercultural rhetoric research: Beyond texts. *Journal of English for Academic Purposes*, 3(4), 291-304.
<https://doi.org/10.1016/j.jeap.2004.07.003>
- Connor, U., & Rozycki, W. (2013). ESP and intercultural rhetoric. In B. Paltridge & S. Starfield (Eds.), *The handbook of English for specific purposes* (pp.427-443). Wiley-Blackwell.
- Cooper, C. (1985). *Aspects of article introductions in IEEE publications* [Unpublished master's thesis]. University of Aston.
- Crookes, G. (1986). Towards a validated analysis of scientific text structure. *Applied Linguistics*, 7(1), 57-70.
<https://core.ac.uk/download/pdf/32302578.pdf>
- El Malik, A., & Nesi, L. (2008). Publishing research in a second language: The case of Sudanese contributors to international medical journals. *Journal of English for Academic Purposes*, 7(2), 87-96.
<https://doi.org/10.1016/j.jeap.2008.02.007>

- Ershadi, S., & Farnia, M. (2015). Comparative generic analysis of discussions of English and Persian computer research articles. *Culture and Communication Online*, 6(6), 15-31.
<http://komunikacijakultura.org/index.php/kk/article/view/283>
- Farzannia, S., & Farnia, M. (2017). Genre-based analysis of English and Persian research article abstracts in mining engineering journals. *Beyond Words*, 5(1), 1-13.
<https://doi.org/10.33508/bw.v5i1.1111>
- Ge, D. M., & Yang, R. Y. (2005). A genre analysis of research article abstracts. *Modern Foreign Languages*, 28(2), 138-146.
<https://caod.oriprobe.com/issues/332993/toc.htm>
- Ghasemi, T., & Alavi, S. M. (2014). A comparative move analysis study of theses abstracts written by Iranian MA students of TEFL and English literature. *Online International Journal of Arts and Humanities*, 3(1), 5-15.
- Harwood, N. (2005). "We do not seem to have a theory . . . The theory I present here attempts to fill this gap": Inclusive and exclusive pronouns in academic writing. *Applied Linguistics*, 26(3), 343-375.
<https://doi.org/10.1093/applin/ami012>
- Hirano, E. (2009). Research article introductions in English for specific purposes: A comparison between Brazilian Portuguese and English. *English for Specific Purposes*, 28(4), 240-250.
<https://doi.org/10.1016/j.esp.2009.02.001>
- Holliday, A. R. (1999). Small cultures. *Applied Linguistics*, 20(2), 237-264.
<https://doi.org/10.1093/applin/20.2.237>
- Hyland, K. (2000). *Disciplinary discourses: Social interactions in academic writing*. Pearson.
- Hyland, K. (2002). Genre: Language, context, and literacy. *Annual Review of Applied Linguistics*, 22(1), 113-135.
<https://doi.org/10.1017/S0267190502000065>
- Jalilifar, A., & Dastjerdi, H. (2010). A contrastive generic analysis of thesis and dissertation abstracts: Variations across disciplines and cultures. *Journal of the Faculty of Letters and Humanities*, 26(23), 20-50.
<https://www.sid.ir/en/journal/JournalList.aspx?ID=276>
- Joseph, R., & Lim, J. M. H. (2018). Background information in the discussion sections of forestry journals: A case study. *GEMA Online Journal of Language Studies*, 18(1), 198-216.
<http://doi.org/10.17576/gema-2018-1801-12>
- Kanoksilapatham, B. (2005). Rhetorical structure of biochemistry research articles. *English for Specific Purposes*, 24(3), 269-292.
<https://doi.org/10.1016/j.esp.2004.08.003>
- Kanoksilapatham, B. (2007). Rhetorical moves in biochemistry articles. In D. Biber, U. Connor, & T. A. Upton (Eds.), *Discourse on the move: Using corpus analysis to describe discourse structure* (pp. 73-119). John Benjamins.
<https://doi.org/10.1075/scl.28.06kan>
- Kanoksilapatham, B. (2015). Distinguishing textual features characterizing structural variation in research articles across three engineering sub-discipline corpora. *English for Specific Purposes*, 37, 74-86.
<https://doi.org/10.1016/j.esp.2014.06.008>
- Kaplan, R. B. (1966). Cultural thought patterns in intercultural education. *Language Learning*, 16, 1-20.
<https://doi.org/10.1111/j.1467-1770.1966.tb00804.x>
- Keshavarz, M. H., Atai, M. R., & Barzegar, V. (2007). A contrastive study of generic organization of research article introductions written by Iranian and non-Iranian writers in applied linguistics. *Journal of Teaching English Language and Literature Society of Iran*, 1(2), 13-34.
https://teljournal.org/article_113086_274945bbbead3049b243f605605c5d8a.pdf

- Kubota, R. (1999). Japanese culture constructed by discourses: Implications for applied linguistics research and English language teaching. *TESOL Quarterly*, 33(1), 9-35. <https://doi.org/10.2307/3588189>
- Lim, J. M. (2006). Method sections of management research articles: A pedagogically motivated qualitative study. *English for Specific Purposes*, 25(3), 282-309. <https://doi.org/10.1016/j.esp.2005.07.001>
- Lim, J. M. (2010). Commenting on research results in applied linguistics and education: A comparative genre-based investigation. *Journal of English for Academic Purposes*, 9(4), 280-294. <https://doi.org/10.1016/j.jeap.2010.10.001>
- Lim, J. M. (2012). How do writers establish research niches? A genre-based investigation into management researchers' rhetorical steps and linguistic mechanisms. *Journal of English for Academic Purposes*, 11(3), 229-245. <https://doi.org/10.1016/j.jeap.2012.05.002>
- Loi, C. K., & Evans, M. S. (2010). Cultural differences in the organization of research article introductions from the field of educational psychology: English and Chinese. *Journal of Pragmatics*, 42(10), 2814-2825. <https://doi.org/10.1016/j.pragma.2010.03.010>
- Martin, K. I., & Ellis, N. C. (2012). The roles of phonological short-term memory and working memory in L2 grammar and vocabulary learning. *Studies in Second Language Acquisition*, 34(3), 379-413. <https://www.jstor.org/stable/26328949>
- Matsuda, P. K., & Atkinson, D. (2008). A conversation on contrastive rhetoric: Dwight Atkinson and Paul Kei Matsuda talk about issues, conceptualizations, and the future of contrastive rhetoric. In U. Connor, E. Nagelhout, & W. Rozycki (Eds.), *Contrastive rhetoric: Reaching to intercultural rhetoric* (pp. 277-298). John Benjamins. <https://doi.org/10.1075/pbns.169.18mat>
- Moreno, A. (2008). The importance of comparable corpora in cross-cultural studies. In U. Connor, E. Nagelhout, & W. Rozycki (Eds.), *Contrastive rhetoric: Reaching to intercultural rhetoric* (pp. 25-41). John Benjamins. <https://doi.org/10.1075/pbns.169.04mor>
- Nwogu, K., N. (1997). The medical research paper: Structure and function. *English for Specific Purposes*, 16(2), 119-137. [https://doi.org/10.1016/S0889-4906\(97\)85388-4](https://doi.org/10.1016/S0889-4906(97)85388-4)
- Ozturk, I. (2007). The textual organization of research article introductions in ALs: Variability within a single discipline. *English for Specific Purposes*, 26(1), 25-38. <https://doi.org/10.1016/j.esp.2005.12.003>
- Peacock, M. (2002). Communicative move in discussion section of research articles. *System*, 30(4), 479-497. [https://doi.org/10.1016/S0346-251X\(02\)00050-7](https://doi.org/10.1016/S0346-251X(02)00050-7)
- Peacock, M. (2011). The structure of the methods section in research articles across eight disciplines. *Asian ESP Journal*, 7(2), 99-144. <https://scholars.cityu.edu.hk/en/publications/publication>
- Pennycook, A. (2001). *Critical applied linguistics: A critical introduction*. Erlbaum.
- Pennycook, A. (2008). English as language always in translation. *European Journal of English Studies*, 12(1), 33-47. <https://doi.org/10.1080/13825570801900521>
- Posteguillo, S. (1999). The schematic structure of computer science research articles. *English for Specific Purposes*, 18(2), 139-160. [https://doi.org/10.1016/S0889-4906\(98\)000015](https://doi.org/10.1016/S0889-4906(98)000015)
- Rezaee, A.A., & Sayfour, N. (2009). Iranian ISI and Non-ISI medical research articles in English: A comparative ESP/EAP move analysis. *Journal of English Language Teaching and Learning*, 52(2), 136-160. https://elt.tabrizu.ac.ir/article_643.html

- Samraj, B. (2002). Introductions in research articles: Variations across disciplines. *English for Specific Purposes*, 21(1), 1-17.
[https://doi.org/10.1016/S0889-4906\(00\)00023-5](https://doi.org/10.1016/S0889-4906(00)00023-5)
- Sheldon, E. (2011). Rhetorical differences in research articles introductions written by English L1 and L2 and Castilian Spanish L1 writers. *English for Academic Purposes*, 10(4), 238-251.
<https://doi.org/10.1016/j.jeap.2011.08.004>
- Sheldon, E. (2019). Knowledge construction of discussion/conclusion sections of research articles written by English L1 and L2 and Castilian Spanish L1 writers. *English for Academic Purposes*, 35, 13-40.
<https://doi.org/10.1016/j.jeap.2018.11.002>
- Spack, R. F. (1988). Initiating ESL students into the academic discourse community: How far should we go? *TESOL Quarterly*, 22(1), 29-52.
<https://doi.org/10.2307/3587060>
- Spack, R. F. (1997). The rhetorical construction of multilingual students. *TESOL Quarterly*, 31(4), 765-774.
<https://doi.org/10.2307/3587759>
- Stoller, F. L. & Robinson, M. S. (2013). Chemistry journal articles: An interdisciplinary approach to move analysis with pedagogical aims. *English for Specific Purposes*, 32(1), 45-57.
<https://doi.org/10.1016/j.esp.2012.09.001>
- Swales, J. M. (1981). *Aspects of article introductions in ESP research reports*. University of Michigan Press.
- Swales, J. M. (1990). *Genre analysis: English in academic and research settings*. Cambridge University Press.
- Swales, J. M. (2004). *Research genres: Exploration and applications*. Cambridge University Press.
- Swales, J. M., & Feak, C. B. (2009). *Abstracts and the writing of abstracts*. University of Michigan Press.
- Tavakoli Gheinani, M., & Tabatabaei, O. (2018). A structural move analysis of the abstract section of ISI articles of Iranian and native scholars in the field of agricultural engineering. *International Journal of Research*, 7(3), 109-122
<https://doi.org/10.5861/ijrsll.2017.1864>
- Tessuto, G. (2015). Generic structure and rhetorical moves in English-language empirical law research articles: Sites of interdisciplinary and interdiscursive cross-over. *English for Specific Purposes*, 37, 13-26.
<https://doi.org/10.1016/j.esp.2014.06.002>
- Weissberg, R., & Buker, S. (1990). *Writing up research: Experimental research report writing for students of English*. Prentice Hall.
- Widdowson, H. G. (1978). *Teaching language as communication*. Oxford University Press.
- Widdowson, H. G. (1979). *Explorations in applied linguistics*. Oxford University Press.
- Williams, I. A. (1999). Results sections of medical research articles: Analysis of rhetorical categories for pedagogical purposes. *English for Specific Purposes*, 18(4), 347-366.
[https://doi.org/10.1016/S0889-4906\(98\)00003-9](https://doi.org/10.1016/S0889-4906(98)00003-9)
- Wood, A. (2001). International scientific English: The language of research scientists around the world. In J. Flowerdew & M. Peacock (Eds.), *Research perspectives on English for academic purposes* (pp.71-83). Cambridge University Press.
- Yakhontova, T. (2006). Cultural and disciplinary variation in academic discourse: The issue of influencing factors. *Journal of English for Academic Purposes*, 5(2), 153-167.
<https://doi.org/10.1016/j.jeap.2006.03.002>
- Yang, R., & Allison, D. (2003). Research articles in applied linguistics: Moving from results to conclusions. *English for Specific Purposes*, 22(4), 365-384.
[https://doi.org/10.1016/S0889-4906\(02\)00026-1](https://doi.org/10.1016/S0889-4906(02)00026-1)

Appendix A **Weissberg and Buker's (1990) Move Model**

Introduction

Move 1: Establish a setting

Move 2: Literature review

Move 3: Gap

Move 4: The purpose of the study/ research questions

Move 5: The statement of the value

Method

Move 6: Design

Move 7: Sample

Move 8: Limiting conditions

Move 9: Sampling technique

Move 10: Procedures

Move 11: Materials

Move 12: Statistical treatment

Results

Move 13: Location of results

Move 14: Most important findings

Move 15: Comments on the results

Discussion

Move 16: Original hypothesis

Move 17: Findings

Move 18: Explanation for findings

Move 19: Limitations

Move 20: Implications

Move 21: Recommendation and practical applications

Appendix B **The Content of the Email to the RA Authors**

Subject: Request for guidance

Dear...,

I am a Ph.D. student at the Islamic Azad University of Tabriz, Iran. Our research study deals with the analysis of research articles written in English in different fields. One of the questions of this research is why the authors of research articles repeat some functional structures in different sections of their articles? In order to answer this question, I need the authors' reasons for these repetitions in the research article. For example, in analyzing your article, I noticed that you repeated the purpose of your study, the gap, and the findings in the different sections of your paper. I have written these repetitions in the Word files to clarify the point. Would you please give me any reason for these repetitions? Your answer will definitely be of great help in completing this project. I assure you that any response from you will be used anonymously in the study. I am looking forward to hearing from you.

Kind regards,

Kimia Soltani