Rhetorical Organisation of the Subsections of Research Article Introductions in Applied Linguistics*

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Abstract: Since the publication of the book Genre Analysis (CUP) by Swales (1990), many studies have focused on the study of the rhetorical organisation of different sections of research articles (RAs). The organisation of RA introductions has received most of the attention. However, the focus has generally been on the structure of introductions without subsections or on the main part of introductions with subsections. The term "main part" refers to the section between the abstract and the first subsection of an introduction. However, many researchers have not specified whether the introductions they studied were followed by subsections or not. Therefore, the present study firstly focuses on the structural comparison of RAs with and without subsections. Also, the rhetorical organisation of RA introductions with subsections has not received any attention. Hence, the second purpose of the present study is to investigate how RA introductions with subsections in the field of Applied Linguistics are rhetorically organised. The corpus used in the study consisted of 50 RA introductions published in high impact Applied Linguistics journals. In the analysis, Swales' (1990, 2004) CARS model was used. The findings show that there are rhetorical differences between RA introductions with and without subsections. The study has implications for teaching academic writing to postgraduate students and novice researchers.

Anahtar Sözcükler
Retorik yapı, araştırma makalesi, giriş bölümleri, alt başlıklar.

Özet: Swales'ın (1990) Genre Analysis kitabının yayınlanmasından sonra bilimsel makalelerinin farklı bölümlerinin retorik veya başka bir deyişle yapısal organizasyonunu inceleyen pek çok araştırma yapılmıştır. En çok ilgiyi araştırma makalelerinin giriş bölümlerinin yapısal organizasyonu çekmiştir. Bununla birlikte, araştırmacılar daha çok makalelerin alt başlıkları bulunmayan giriş bölümleri veya alt başlıkları bulunan makalelerin de sadece "ana" bölümleri üzerinde durmuşlardır. "Ana bölüm" terimi ile özet başlığı ile ilk alt başlık arasındaki kısım kastedilmektedir. Ne yazık ki bu çalışmaların çoğunda giriş bölümlerinin devamında alt başlıklar bulunup bulunmadığı net bir şekilde ifade edilmemiştir. Bundan dolayı, bu çalışmanın ilk amacı makalelerin alt başlıksız giriş bölümleri ile alt başlıklı giriş bölümlerinin ana kısımlarının karşılaştırmaktır. Bu çalışmanın bir diğer amacı da günümüze kadar hiç araştırılmamış olan alt başlıklı giriş bölümlerinin retorik yapısını incelemektir. Çalışmada kullanılan veri tabanı (corpus), Uygulamalı Dilbilim alanının önde gelen ve etki faktörü yüksek akademik dergilerde yayınlanan 50 makaleden oluşmaktadır. Analizde Swales'in (1990, 2004) CARS modeli kullanılmıştır. Elde edilen bulgular makalelerin alt başlıklı ve alt başlıksız giriş bölümleri arasında retorik farklılıklar olduğunu göstermektedir. Bu çalışmanın bulguları lisansüstü öğrencilere ve acemi araştırmacılara akademik yazma öğretmek amacıyla kullanılabilir.

1. Introduction

Writing research articles, particularly introductions, is difficult and troublesome for both native and non-native speakers because the opening paragraphs present the author with various options regarding the amount of background information to be provided, the selection of previous research to be reported, the stance to be adopted and the level of directness to be used (Swales, 1990, pp. 137-138). Therefore, since the publication of Swales' (1990) Create a Research Space (CARS) model, the rhetorical organisation of research articles (RAs) has received the attention of many researchers. Previous research has focused on the overall rhetorical structure of RAs in various disciplines (Anthony, 1999, software engineering; Posteguillo, 1999, computer science; Kanoksilapatham, 2005, biochemistry; Tessuto, 2015, empirical law), which has shown how RAs in different disciplines are structurally organised. Later research has shifted attention to the rhetorical structure of RA sections, such as methods (Lim, 2006, in management RAs), results (Brett, 1994, in sociology; Williams, 1999, in medical sciences) and discussion sections (Ruiying & Allison, 2003, in applied linguistics; Basturkmen, 2012, in applied linguistics). Studies in this line of research have identified how these sections are structurally organised.

However, RA introductions have received most of the attention. Research has examined variations in the structure of introductions across different disciplines. For instance, Samraj (2002), who investigated the rhetorical organisation of RA introductions in the fields of Wildlife Behaviour and Conservation Biology, found that there were differences between the two fields in the way introductions were constructed. While Wildlife Behaviour introductions were marked by the presence of a background move about the species observed, centrality claims, which she interpreted as the elements of persuasion and promotion, were common in Conservation Biology. Research has also studied the organisation of introductions within the subdisciplines of a single field. Ozturk(2007) compared two subdisciplines of applied linguistics (second language acquisition and second language writing research) and found that there were structural differences between them. Kanoksilapatham (2012), on the other hand, investigated structural differences in the introductions of three Engineering subdisciplines, which were Civil, Software, and Biomedical Engineering. She found that there were no structural differences at the move level across the three sub-disciplines, but there were variations at the level of steps (see below for the terms 'move' and 'step'). These findings point to the existence of rhetorical difference not only between different disciplines but also between the subdisciplines of a single field. Pedagogically, these findings have important implications, particularly for academic writing. The data used in such studies (known as Genre Analysis) consist of corpora of published RAs in prominent journals in a particular field. Therefore, it can be suggested that the findings reflect the way expert researchers organise their RAs. Hence, the findings of these studies have implications for postgraduate students and novice researchers as they may not be fully aware of how to organise their RAs. They should be advised that academic knowledge of a particular discipline alone may not be sufficient for the successful publication of research as knowledge of how research articles in that discipline are rhetorically organised is also important.

Nevertheless, most of the studies on RA introductions carried out so far have not specified whether the introductions examined were followed by a subsequent section(s) (i.e., subsections) or not. Depending on the existence of a subsequent subsection(s), the introduction may be structured differently (Lin, 2014). Lin (2014) is the only study which has explicitly focused on the rhetorical structure of RA introductions with subsections, which she considers 'literature review.' Her focus was on the main parts of introductions in Civil

Engineering; therefore, she did not examine the structure of the subsequent subsections. However, without a detailed investigation of how subsections of RA introductions are rhetorically organised, it does not seem appropriate to classify them as 'literature review.' Also, she did not explicitly compare introductions with and without subsections. Without such a comparison, it would be impossible to verify the generalizability of the findings. Therefore, it is one of the aims of the present study to explore the rhetorical organisation of RA introductions with and without subsections. Another aim of this study is to investigate the structure of RA introductions with subsections because of the gap in the related literature. In this study, "introduction" is defined as the section(s) following the abstract and preceding the methods section. The following research questions guided the study:

1) Are there any differences between the rhetorical organisation of introductions with and without subsections in Applied Linguistics?
2) How are RA introductions with subsections rhetorically organised in Applied Linguistics?

2. Methods
2.1. The Corpus
In the present study the focus is on Applied Linguistics RA introductions. Applied linguistics is difficult to define. Initially, it was associated with language teaching. Later, the use of the term was broadened to include speech therapy, translation and language planning (Corder, 1973). Generally, the definition of Applied Linguistics proposed by Brumfit (1997, p. 93) as "the theoretical and empirical investigation of real-world problems in which language is a central issue" is accepted by many scholars. Davies (2007, p. 5) suggests that Applied Linguistics could in principle be interested in "anything to do with language." Hence, today Applied Linguistics is regarded as an interdisciplinary field, which encompasses research in Language Acquisition (L1 and L2), Psycho/Neuro-linguistics, Language Teaching, Sociolinguistics, Humour Studies, Pragmatics, Discourse Analysis, Text Processing, Translation and Corpus Linguistics (ibid.). Indeed, this diversity of interest is reflected in the corpus used in the present study (see Appendixes).

The corpus consisted of 50 randomly selected empirical RAs from the 2014 and 2015 issues of five Applied Linguistics journals: Applied Linguistics (Oxford University Press), Studies in Second Language Acquisition (Cambridge University Press), Language Learning (Wiley), English for Specific Purposes (Elsevier) and Journal of Second Language Writing (Elsevier). All of the journals are published in hard cover and are available online by subscription. These are among the most prominent journals in the field of Applied Linguistics with the highest impact factor ranging from 1.453 to 1.773. A total of 10 empirical RAs were selected from each journal. Theoretical and review articles were excluded from the corpus because they may not follow the standard IMRD (introduction-methods-results-discussion) pattern.

2.2. Analytical framework
The model used in the analysis of data was based on Swales' (1990; 2004) CARS model. It was slightly modified by the present researcher.

Move 1 Establishing a territory
Step 1   Claiming centrality and/or
Step 2   Making topic generalization(s) and/or
Step 3   Reviewing items of previous research
Move 2 Establishing a niche
Step 1 Indicating a gap in the previous research or raising a question about it OR
Step 2 Adding to what is known

Move 3 Occupying the niche/Presenting the Present Work
Step 1 (obligatory) Announcing present research descriptively and/or purposively
Step 2 (optional) Presenting research questions or hypotheses
Step 3 (optional) Definitional clarifications
Step 4 (optional) Summarizing methods
Step 5 (PISF*)   Announcing principal outcomes
Step 6 (PISF)   Stating the value of the present research
Step 7 (PISF)   Outlining the structure of the paper
*Probable in some fields
Figure 1
The modified CARS model (based on Swales, 1990, 2004)

Move 1 and its steps were based on Swales' 1990 model. Move 2 and the corresponding steps involved a mixture of the 1990 and 2004 models. Swales (2004, p. 230) suggests that "counterclaiming" and "question raising" are rarer options, and that they "may not be functionally very different from gap indication." Hence, he combined them under one step, "indicating a gap," in the 2004 model. However, it appears that "question raising" is a useful concept in the analysis of data because in some studies researchers do not identify a gap in the literature, but rather question the findings or the methodology used in them. Therefore, for the clarity of analysis, I combined 'indicating a gap' and 'raising a question' as step 1; step 2 (adding to what is known) was based on the 2004 model. Move 3 and its steps were based on the 2004 model.

2.3. Data Analysis
In the analysis of data, each sentence was assigned a move and step label. In most cases, the procedure was successful. A limited number of sentences, which contained multiple clauses, included more than one moves. In such cases, following the common practice (e.g., Cookes, 1986; Ozturk, 2007), each clause was assigned an appropriate move and step label.

3. Results and Discussion
Before turning to the structural comparison of introductions with and without subsections, information regarding their distribution in the corpus is provided. The results are presented in Table 1.

Table 1
Distribution of subsections the introductions in the corpus

Subsections	Number of introductions	%
No subsection	**9**	**18**
1 subsection	4	8
2 subsections	7	14
3 subsections	**19**	**38**
4 subsections	8	16
5 subsections	2	4
6 subsections	1	2
Total	**50**	100

Table 1 shows that 18% of the introductions in the corpus have no subsections. This means that the majority of authors in the field of Applied Linguistics prefer to write introductions

with subsections. In this paper, the focus was on introductions with **no** subsections (N 9) and introductions **with** 3 subsections (N 19).

3.1. Rhetorical structure of RAs with and without subsections
Results concerning the first research question, that is, whether there are structural differences between RAs' introductions with and without subsections, are given Table 2 and Table 3 below.

Table 2
Move structure of the main parts of introductions with subsections

	Article	Move structure	Number of words in the main part	Number of words in the whole introduction
1	AL1	1-2-3	273	2933
2	AL3	1-2-3	616	2288
3	AL8	1-2-3	288	2948
4	AL10	1-2-3	348	2504
5	ESP5	1-2-3	372	1608
6	JSLW8	1-2-3	254	1668
7	LL3	1-2-3	218	3578
8	LL8	1-2-3	385	2400
9	SSLA1	1-2-3	293	3064
10	SSLA10	1-2-3	475	2200
11	LL5	1-2-3	255	3021
12	JSLW1	1-2-3-1-3	513	1580
13	JSLW4	1-2-1-2-3	708	3674
14	LL7	1-2-1-2-3	277	2705
15	SSLA5	1-2-1-3	263	3047
16	ESP9	1-3-1-2-1-3	485	1664
17	SSLA6	1-3-2-3	903	4017
18	LL4	1-3-2-1-3	278	2345
19	JSLW9	3-1-2-1-3-1-3	1033	3492
		Average	**434**	**2670,3**

Table 2 reveals that all main parts of introductions with subsections contain Move 1(establishing a territory), Move 2 (establishing a niche) and Move 3(occupying the niche/presenting the present work). With the exception of one (JSLW9), all main parts begin with Move 1 and close with Move 3, and all contain Move 2. In terms of frequency of occurrence, the 1-2-3 move structure is predominant as it occurs in 11 out of 19 introductions (58%). This is an important finding since this pattern was not observed in introductions without subsections (see below). In the remaining 8 introductions, the cyclicity of moves 1-2 and 1-3 can be observed. Results related to move structure in introductions without subsections are presented in Table 3.

Table 3
Move structure of introductions without subsections

	Article	Move structure	Number of words
1	ESP6	1-2-3-1-3	1480
2	ESP10	1-2-3-1-2-3-1-2-3	1618
3	SSLA4	1-2-3-1-3-1-3	942
4	AL7	1-2-1-3-1-2-1-2-3	1197
5	JSLW2	1-2-1-3-2-3-1-3-1-3	1825
6	ESP1	1-3-1-2-1-3	1173
7	AL5	1-3-1-2-1-3-1-3	1852
8	ESP4	1-3-1-3-1-2-3	1385
9	AL2	3-1-2-3	1010
		Average	**1387**

Table 3 shows that all introductions without subsections contain Move 1, Move 2 and Move 3, but none of them contain the 1-2-3 move structure. Only three introductions (ESP6, ESP10 and SSLA4) begin with the 1-2-3 move pattern but continue with cycles of moves 1-2 or 1-3. However, in a similar way to the main parts discussed above, with the exception of one (AL2), all introductions begin with Move 1 and conclude with Move 3, and they all contain Move 2.

If the results presented in Table 2 and Table 3 are compared, it can be observed that the main parts (i.e., the part of an introduction preceding the first subsection) of introductions with subsections are much shorter that introductions without subsections (434 and 1387 words respectively). However, as a whole, introductions with subsections are much longer than those without subsections (2670 words vs. 1387 words).

Another difference between the two types of introductions is related to the sequencing of the three moves. In contrast to introductions without subsections, in the main parts of introductions with subsections, the 1-2-3 move structure was predominant. This is in line with Lin's (2014) findings. The 1-2-3 move structure was present in one third of the introductions in her corpus. The difference in the frequency of occurrence between the two studies can be accounted for in term of disciplinary differences. The present study focused on introductions in Applied Linguistics whereas in Lin's (2014) study the focus was on introductions in Civil Engineering.

Further evidence for the rhetorical differences between the two types of introductions comes from the comparison of the steps. The frequency of the steps in introductions without subsections and those with subsections can be compared in Table 4.

Table 4

Distribution of steps in each move in introductions with and without subsections

Moves	with subsections		without subsections	
	Frequency	%	Frequency	%
MOVE 1. Establishing a territory				
Step 1. Claiming centrality	3	3	9	3
Step 2. Making topic generalization(s)	90	**74**	153	**55**
Step 3. Reviewing items of previous research	29	**24**	118	**42**
MOVE 2. Establishing a niche				
Step 1. Indicating a gap in the previous research or raising a question about it	22	100	15	100
Step 2. Continuing a line of research	0	0	0	0
MOVE 3. Occupying the niche/Presenting the Present Work				
Step 1. Announcing present research	25	34	27	40
Step 2. Presenting research questions or hypotheses	**0**	**0**	**10**	**15**
Step 3. Definitional clarifications	0	0	2	3.0
Step 4. Summarizing methods	22	**30**	12	**18**
Step 5. Announcing principal outcomes	0	0	3	4.5
Step 6. Stating the value of the present research	8	11	13	19
Step 7. Outlining the structure of the paper	**19**	**26**	**0**	**0**

The results given in Table 4 demonstrate that there are significant differences in the distribution of the steps across the two types of introductions. The most noticeable difference was observed in the distribution of Move 3 Step 2 (presenting research questions or hypotheses) and Move 3 Step 7 (outlining the structure of the paper). While Move 3 Step 2 occurred in none of the introductions with subsections, its occurrence in introductions without subsections was 15%. This result indicates that research questions or hypotheses are provided in the subsequent subsections of introductions. As for Move 3 Step 7, the reverse was the case. While this step did not occur at all in introductions without subsections, its occurrence was 26% in introductions with subsections. This can be taken to mean that Move 3 Step 7 (outlining the structure of the paper) is preferred in introductions with subsections which, as mentioned above, are longer than those without subsections. This is exemplified in the following extract:

> Inwhat follows, I first provide an overview of….Subsequently, I review how recent studies have examined….Last, I present the results of the current study… (SSLA10)

The extract illustrates that the author closes the main part of the introduction by outlining what he will do in the subsequent sections of the paper.

In addition, Move 3 Step 4 (Summarizing methods) (74% vs. 55%) and Move 1 Step 2 (Making topic generalization(s)) (30% vs. 18%) were more common in introductions with subsections. On the other hand, Move 1 Step 3 (Reviewing items of previous research) was more common in introductions without subsections (42% vs. 24%). This indicates that Move 1 Step 2 (Making topic generalization(s)) is the preferred step in the main part of introductions with subsections, and it implies that previous research is reviewed in the subsequent sections of the introduction.

In summary, the results reported above reveal that there are rhetorical differences between the main parts of introductions with subsections and introductions without subsections. This is an important finding in view of the fact that previous studies on the rhetorical organisation of introductions have not made a distinction between the two types of introductions. Future research on RA introductions should take the distinction into account, and previous research on the topic should be evaluated with caution, particularly the studies which do not mention whether the introductions examined were followed by subsequent subsections or not. Failure to do so would result in incorrect generalisations and faulty practices. The implication is that postgraduate student and novice researchers should be made aware of the structural difference between the two types of introductions and instructed to write their research accordingly.

Although a larger corpus is needed for the generalizability of these findings, they still reveal that the existence of subsections has a substantial effect on the rhetorical structure of RA introductions. The issue of how introduction with subsections are structurally organised is discussed in the next section.

3.2. Rhetorical organisation of RAs introductions with subsections

Before the presentation of the results related to the structural organisation of RAs with subsections, information regarding the headings in such introductions may be useful. The headings used in introductions with three subsections are presented in Table 5.

Table 5
Subsection headings in introductions with subsections

	Article	main part	1. subsection	2. subsection	3. subsection
1	AL1	Introduction	topic based heading	topic based heading	**Research Questions (RQs)**
2	AL3	Introduction	topic based heading	topic based heading	topic based heading
3	AL8	Introduction	topic based heading	topic based heading	**RQs**
4	AL10	Untitled introduction	**literature review**	topic based heading	**RQs**
5	ESP5	Introduction	**theoretical framework**	topic based heading	**RQs**
6	JSLW8	Introduction	topic based heading	topic based heading	**RQs**
7	LL3	Introduction	topic based heading	topic based heading	The Present Study
8	LL8	Untitled introduction	**background**	topic based heading	Motivation for the Current Study
9	SSLA1	Untitled introduction	**background**	topic based heading	RQs
10	SSLA10	Untitled introduction	**background**	topic based heading	topic based heading
11	LL5	Introduction	**literature review**	topic based heading	**RQs and hypotheses**
12	JSLW1	Introduction	topic based heading	topic based heading	topic based heading+**RQs**
13	JSLW4	Introduction	**previous research**	topic based heading	**RQs**
14	LL7	Introduction	topic based heading	topic based heading	The Current Study+**RQs**
15	SSLA5	Untitled introduction	**background**	topic based heading	topic based heading
16	ESP9	Introduction	topic based heading	topic based heading	**RQs**
17	SSLA6	Untitled introduction	topic based heading	topic based heading	The Current Study
18	LL4	Introduction	topic based heading	topic based heading	The present research
19	JSLW9	Introduction	topic based heading	topic based heading	The present study+**RQs**

The results in Table 5 show that 7 out of 19 (37%) main parts are untitled, and the remaining 12 (63%) are entitled 'introduction.' As far as subsections 1 are concerned, 8 out of 19 (42%) subsections are labelled as 'background' (N 4), 'literature review' (N 2), 'previous research' (N 1) and 'theoretical framework' (N 1); the remaining 11 main parts (58%) have topic-based headings. This result seems to indicate that approximately half of the researchers in Applied

Linguistics do not view the subsections as "literature review" as argued by Kwan, Chan and Lam (2012). As for subsections 2, all of them contain topic-based headings. The most interesting result occurs in subsections 3, where 12 out of 19 introductions (63%) close with research questions. In connection with the results presented in Table 4 above, it was pointed out that none of the main parts of the introductions with subsections ended with research questions or hypotheses. Hence, this finding can be taken to mean that authors prefer to present their research questions or hypotheses in the final subsection of the introduction, just before the methods section, rather than in the main part of the introduction. This further implies that subsections are considered parts of RA introductions, but not independent 'reviews of literature' as argued by some scholars (Kwan et al., 2012; Lin, 2014; Tessuto, 2015).

Turning now to the structural organisation of RA introductions with subsections, first I present the results concerned with the move structure of the introductions in the corpus in Table 6 below.

Table 6
Move structure of introductions with subsections

	Article	Main part	Subsection 1	Subsection 2	Subsection 3
1	AL3	1-2-3	1-3-1	1-2-3	1-3-2-1-2-1-3
2	ESP5	1-2-3	1-3	1	1-2-3
3	LL3	1-2-3	1-2	1-2-1-2-1-2-3	1-2-1-3
4	SSLA1	1-2-3	1-2-1-2	1	1-2-1-2-1-2-3
5	SSLA10	1-2-3	1	1-2-3	1-2-1-3
6	AL8	1-2-3	1	1-3-1-2-3-1-3-1-3	3-1-3
7	AL10	1-2-3	1-3-1-2	1	1-2-3
8	LL8	1-2-3	1	1	1-2-1-3-1-3
9	JSLW8	1-2-3	1-2	1-2-1	1-3
10	AL1	1-2-3	1-2-3	1-2	1-3-2-1-2-1-3
11	LL5	1-2-3	1-3-1-2-1	1-2-1	1-2-1-2-3
12	JSLW1	1-2-3-1-3	1-2-1	1-2	1-2-3
13	SSLA5	1-2-1-2-3	1-2-1-2	1-2-1	1-2-3
14	JSLW4	1-2-1-2-3	1-2-3	1-2-1	1-2-3
15	LL7	1-2-1-3	1-2-1	1-2-1-2-1-2-1	3-1-3-1-3
16	ESP9	1-3-1-2-1-3	1-2-1-2-1-3	1	1-3
17	SSLA6	1-3-2-3	1-2	1-2	2-1-3
18	LL4	1-3-2-1-3	1-2-1-2-1-3	1-2-1-3	3-1-3-1
19	JSLW9	3-1-2-1-3-1-3	3-1-3-1-2-1-3	1-3-1-3-1-3-1-3	1-3-1-2-1-3

The results given in Table 6 show that in terms of move structure, there are similarities between the main parts and the final subsections (i.e. subsection 3) of the introductions. Subsections 1 and subsections 2 have a different structure from the main parts and the final subsections, but there is a similarity between them. The move configurations and their frequency of occurrence are provided in Table 7 below.

Table 7

Frequency of move configurations in introductions with subsections

Main part	N	Subsection 1	N	Subsection 2	N	Subsection 3 (FINAL)	N
1-2-3	11	1	3	1	5	**1-2-3**	6
1-2-1-2-3	2	1-2	3	1-2	3	1-2-1-3	2
1-2-3-1-3	1	1-2-1	2	1-2-1	4	1-3	2
1-2-1-3	1	1-2-1-2	2	**1-2-3**	2	1-2-1-2-1-2-3	1
1-3-2-3	1	1-2-1-2-3	2	1-2-1-2-3	1	1-2-1-3-1-3	1
1-3-2-1-3	1	**1-2-3**	1	1-2-1-2-1-2-3	1	1-3-2-1-2-1-3	1
1-3-1-2-1-3	1	1-2-3-2	1	1-2-1-3	1	1-3-1	1
3-1-2-1-3-1-3	1	1-3	1	1-2-1-2-1-2-1	1	1-3-1-2-1-3	1
Total	**19**	1-3-1	1	3-1-3-1-1-2-1-3	1	1-3-2-1-2-1-3	1
		1-3-1-2	1	**Total**	**19**	2-1-3	1
		1-3-1-2-1	1			3-1-3-1	1
		1-3-1-2-1	1			3-1-3-1-3	1
		Total	**19**			**Total**	**19**

According to the results in Table 6, the main parts in 18 out of 19 (95%) introductions begin with Move 1 (establishing a territory) and all end with Move 3 (occupying the niche or presenting the present work).Move 2 (establishing a niche) is also present in all the main parts. Similarly, in the final subsections 16 out of 19 (84%) introductions begin with Move 1 and all end with Move 3; Move 2 occurs in 13 out of 19 (68%) introductions. In term of frequency, the results in Table 7 demonstrate that the 1-2-3 move pattern is more frequent in the main parts (11 out of 19) and the final subsections (6 out of 19) of the introductions in the corpus. Therefore, it appears that in terms of move structure there is a similarity between the main parts and the final subsections of introductions.

As far as subsections 1 and subsections 2 are concerned, the results provided in Table 6 reveal that they are rhetorically different from the main parts and the final subsections. In contrast to the main parts and the final subsections, these two subsections are marked by an infrequent use of Move 3. Move 3 is lacking in 10 out of 19 (53%) instances in subsections 1 and in 13 out of 19 (68%) instances in subsections 2. In addition, we notice single move subsections – 3 occurrences in subsections 1 and 5 occurrences in subsections 2. The 1-2-3 move structure is also infrequent with 2 instances in each of these two subsections (see Table 7). In this respect, there is a structural similarity between subsections 1 and subsections 2.

To sum up, in light of findings reported above, it can be suggested that more rhetorical work is involved in the organisation of RA introductions with subsections than those without subsections. Although further research is needed, it seems that in the main part of an introduction, which is usually labelled 'introduction,' authors provide a short general introduction to the topic investigated (434 words on average). In the subsequent subsections (2200 words on average), which usually have topic-based headings, they elaborate on the issues investigated, and in the final subsection, they present their research questions or hypotheses. In order to distinguish between the two types of introductions investigated in the present study, I offer the term "extended introduction" to refer to introductions with subsections.

4. Conclusion

The present study examined the rhetorical organisation of RA introductions with and without subsections. In the literature, the rhetorical organisation of RA introductions has received considerable attention, but no distinction has been made between introductions with and without subsections. Therefore, the study first focused on the comparison of RA introductions without subsections and the main parts (i.e., the part preceding the first subsection generally entitled "introduction") of introductions with subsections. This was followed by a structural analysis of the overall organisation of RA introductions with subsections.

The results of the analysis indicate that there are rhetorical differences between introductions without subsections and the main parts of introductions with subsections. To summarise the findings, first, the main parts of introductions with subsections were shorter than introductions without subsections and had a simpler structure. The majority of them were organised in accordance with the 1-2-3 move pattern (i.e., establishing a territory; establishing a niche; presenting the present work). On the other hand, in introductions without subsections, this move structure was not present at all, and even when an introduction began with the 1-2-3 move structure, it was followed by cycles of moves 1-2 and 1-3. Secondly, there were differences in the occurrence and distribution of the steps used in the realisation of the moves. For instance, M1S7 (outlining the structure of the paper) occurred in the main parts of introductions with subsections, but not in introductions without subsections. This can be seen as an indicator of subsequent sections. In addition, none of the main parts contained research questions/hypotheses. The analysis of the subsections, however, revealed that the number of subsections ranged from 2 to 6 (see Table 2) explaining why M1S7 (outlining the structure of the paper) was observed only in introductions with subsections. As for the research questions/hypotheses, it was found that they occurred in the final subsections of the introductions, just before the methods section. These findings provide evidence for the suggestion that there are rhetorical differences in the organisation of RA introductions with and without subsections, and further indicate that subsections are not "independent reviews of literature" but are integral parts of RA introductions. Hence, "extended introduction" would be the appropriate term to refer to this type of introduction.

The findings of the present study are important in light of the fact that previous research on the rhetorical organisation of RA introductions has failed to make a distinction between the two types of introductions. However, the corpus used in this study was not large enough to make conclusive generalisations. A replication of this study with a larger corpus can profitably be conducted.

Further research might explore the structural organisation of RA introductions with and without subsections in other disciplines. In the same vein, studies comparing the structural organisation of the two types of introductions in different disciplines (i.e., interdisciplinary variation) and the subdisciplines of a single discipline (i.e., intradisciplinary variation) could usefully be conducted. More research is also needed to account for how the steps in each move are realised and distributed across different disciplines and the subdisciplines of a single discipline. Moreover, interlingual contrastive studies investigating the rhetorical organisation of RA introductions with and without subsections would provide useful insights.

The study has pedagogical implications for academic writing. Postgraduate students and novice researchers should be made aware of the differences between the two types of

introductions and instructed accordingly. For instance, we could ask them to collect 5 to 10 RA introductions with and without subsections in their field of study, and then request them to analyse these introductions in terms of the CARS model. The same strategy could also be applied to other sections of RAs such as the methods, discussion and conclusion. Suitable analytical frameworks are available in the genre analysis literature for this purpose. In this way, we can raise postgraduate students' and novice researchers' awareness of the rhetorical organisation of RAs in their discipline. The strategy proposed here could be followed by research carried out by the students, and their writing process could be monitored by the instructor.

References

Anthony, L. (1999). Writing research article introductions in software engineering: how accurate is a standard model? *IEEE Transactions on Professional Communication, 42*(1), 38-46. doi: 10.1109/47.749366

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. doi: http://dx.doi.org/10.1016/j.jeap.2011.10.004

Brett, P. (1994). A genre analysis of the results section of sociology articles. *English for Specific Purposes, 13*(1), 47-59. doi: http://dx.doi.org/10.1016/0889-4906(94)90024-8

Kanwit, M., & Geeslin, K. L. (2014). The interpretation of Spanish subjunctive and indicative forms in adverbial clauses. *Studies in Second Language Acquisition, 36*(3), 487.

Kuteeva, M., & McGrath, L. (2013). The theoretical research article as a reflection of disciplinary practices: The case of pure mathematics. *Applied Linguistics, 36*(2), 215-235.

Kwan, B. S. C., 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*(3), 188-201.

Lim, J. M. H. (2006). Method sections of management research articles: A pedagogically motivated qualitative study. *English for Specific Purposes, 25*(3), 282-309.

Lin, L. (2014). Variability in the rhetorical structure of research article introductions: The case of civil engineering. *Revista Española de Lingüística Aplicada/Spanish Journal of Applied Linguistics, 27*(2), 405-432. doi: 10.1075/resla.27.2.08lin

Martín, P., & Pérez, I. K. L. (2014). Convincing peers of the value of one's research: A genre analysis of rhetorical promotion in academic texts. *English for Specific Purposes, 34*, 1-13.

McDonough, K., Crawford, W. J., & De Vleeschauwer, J. (2014). Summary writing in a Thai EFL university context. *Journal of second language writing, 24*, 20-32.

Ozturk, I. (2007). The textual organisation of research article introductions in applied linguistics: Variability within a single discipline. *English for Specific Purposes, 26*(1), 25-38. doi: doi 10.1016/j.esp.2005.12.003

Posteguillo, S. (1999). The schematic structure of computer science research articles. *English for Specific Purposes, 18*(2), 139-160.

Rowley-Jolivet, E. (2015). Quantification in conference talks and proceedings articles in engineering. *English for Specific Purposes, 38*, 11-22.

Ruiying, Y., & Allison, D. (2003). Research articles in applied linguistics: moving from results to conclusions. *English for Specific Purposes, 22*(4), 365-385.

Soler-Monreal, C. (2015). Announcing one's work in PhD 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.

Swales, J. M. (1990).*Genre Analysis. English in academic and research settings*. Cambridge: Cambridge University Press

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

Swales, J. M., & Feak, C. B. (2004). *Academic writing for graduate students: Essential tasks and skills*. Ann Arbor: The University of Michigan Press.

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. doi: https://doi.org/10.1016/j.esp.2014.06.002

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. doi: https://doi.org/10.1016/S0889-4906(98)00003-9

Appendix A. Articles in corpus in introductions without subsections

AL2. Ko, S. (2013). The nature of multiple responses to teachers' questions. *Applied Linguistics*, *35*, 48-62.

AL5. Zhang, X., & Lu, X. (2013).A longitudinal study of receptive vocabulary breadth knowledge growth and vocabulary fluency development. *Applied Linguistics*, 35, 283-304.

AL7. Kuteeva, M., & McGrath, L. (2013). The theoretical research article as a reflection of disciplinary practices: The case of pure mathematics. *Applied Linguistics, 36*, 215-235.

ESP1. Martín, P., & Pérez, I. K. L. (2014). Convincing peers of the value of one's research: A genre analysis of rhetorical promotion in academic texts. *English for Specific Purposes, 34*, 1-13.

ESP4. Gea-Valor, M. L., Rey-Rocha, J., & Moreno, A. I. (2014). Publishing research in the international context: An analysis of Spanish scholars' academic writing needs in the social sciences. *English for Specific Purposes*, *36*, 47-59.

ESP6. Rowley-Jolivet, E. (2015). Quantification in conference talks and proceedings articles in engineering. *English for Specific Purposes, 38*, 11-22.

ESP10. Soler-Monreal, C. (2015). Announcing one's work in PhD 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.

JSLW2. McDonough, K., Crawford, W. J., & De Vleeschauwer, J. (2014).Summary writing in a Thai EFL university context. *Journal of Second Language Writing, 24*, 20-32.

SSLA4. Kanwit, M., &Geeslin, K. L. (2014).The interpretation of Spanish subjunctive and indicative forms in adverbial clauses. *Studies in Second Language Acquisition, 36*, 487-533.

Appendix B. Articles in corpus in introductions with subsections

AL1. Fordyce, K. (2013). The differential effects of explicit and implicit instruction on EFL learners' use of epistemic stance. *Applied Linguistics*, *35*, 6-28.

AL3. Polat, B., & Kim, Y. (2014). Dynamics of complexity and accuracy: A longitudinal case study of advanced untutored development. *Applied Linguistics*, *35*, 184-207.

AL8. Wang, C., & Wang, M. (2014).Effect of alignment on L2 written production. *Applied Linguistics*, *36*, 503-526.

AL10. Plonsky, L., Egbert, J., &Laflair, G. T. (2014).Bootstrapping in applied linguistics: Assessing its potential using shared data. *Applied Linguistics*, *36*, 591-610.

ESP5. Yang, W. (2015). "Call for papers": Analysis of the schematic structure and lexico-grammar of CFPs for academic conferences. *English for Specific Purposes*, *37*, 39-51.

ESP9. Gablasova, D. (2015). Learning technical words through L1 and L2: Completeness and accuracy of word meanings. *English for Specific Purposes*, *39*, 62-74.

JSLW1. Nicolás-Conesa, F., de Larios, J. R., & Coyle, Y. (2014).Development of EFL students' mental models of writing and their effects on performance. *Journal of Second Language Writing*, *24*, 1-19.

JSLW4. Yang, C., Hu, G., & Zhang, L. J. (2014).Reactivity of concurrent verbal reporting in second language writing. *Journal of Second Language Writing*, *24*, 51-70.

JSLW8. Worden, D. (2015). Developing writing concepts for teaching purposes: Preservice L2 writing teachers' developing conceptual understanding of parallelism. *Journal of Second Language Writing*, *30*, 19-30.

JSLW9. Frear, M. W., & Bitchener, J. (2015). The effects of cognitive task complexity on writing complexity. *Journal of Second Language Writing*, *30*, 45-57.

LL3. Chrabaszcz, A., &Gor, K. (2014). Context effects in the processing of phonolexical ambiguity in L2. *Language Learning*, *64*, 415-455.

LL4. Bosker, H. R., Quené, H., Sanders, T., & Jong, N. H. (2014).The perception of fluency in native and nonnative speech. *Language Learning*, *64*, 579-614.

LL5. Révész, A., Sachs, R., & Hama, M. (2014). The effects of task complexity and input frequency on the acquisition of the past counterfactual construction through recasts. *Language Learning*, *64*, 615-650.

LL7. McDonough, K., &Fulga, A. (2015). The detection and primed production of novel constructions. *Language Learning*, *65*, 326-357.

LL8. Saito, K. (2015). Experience effects on the development of late second language learners' oral proficiency. *Language Learning*, *65*, 563-595.

SSLA1. Gurzynski-Weiss, L., & Baralt, M. (2014). Exploring learner perception and use of task-based interactional feedback in FTF and CMC modes. *Studies in Second Language Acquisition*, *36*, 1-37.

SSLA5. Grey, S., Williams, J. N., & Rebuschat, P. (2014). Incidental exposure and L3 learning of morphosyntax. *Studies in Second Language Acquisition*, *36*, 611-645.

SSLA6. Miller, A. K. (2015). Intermediate traces and intermediate learners: Evidence for the use of intermediate structure during sentence processing in second language French. *Studies in Second Language Acquisition*, *37*, 487-516.

SSLA10. Saito, K. (2015). The role of age of acquisition in late second language oral proficiency attainment. *Studies in Second Language Acquisition*, *37*, 713-743.